

Verbs, Clauses and Constructions

Verbs, Clauses and Constructions:

Functional and Typological Approaches

Edited by

Pilar Guerrero Medina,
Roberto Torre Alonso
and Raquel Veá Escarza

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TABLE OF CONTENTS

LIST OF FIGURES	ix
LIST OF TABLES.....	xi
ACKNOWLEDGEMENTS	xiii
INTRODUCTION.....	xv
LIST OF ABBREVIATIONS	xxiii

PART I: VERBS

CHAPTER ONE	3
Typologies of Verbs Used in Mechanical Engineering Texts Snježana Kereković	
CHAPTER TWO	21
Strong Verb Lemmas from a Corpus of Old English: Advances and Issues Darío Metola Rodríguez	
CHAPTER THREE	41
The Loss of Inflection in the Old English Participle: Quantitative and Qualitative Aspects Ana Elvira Ojanguren López	
CHAPTER FOUR	59
Preterite-Present Verb Lemmas from a Corpus of Old English Laura García Fernández	
CHAPTER FIVE.....	77
Deriving Verbs from Nominals in Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra Conor Pyle	

CHAPTER SIX.....	105
Information-Theoretic Approaches to (Verbal) Inflection Classes: Some Limitations Borja Herce	
CHAPTER SEVEN	129
An Account of Basque [n + <i>egin</i>] _v Light Verb Constructions with Respect to the Degrees of Union between their Constituents Arantzazu Martínez Etxarri	
CHAPTER EIGHT	149
Morphosyntactic and Semantic Properties of Epistemic Modals Modifying Verbal Clauses Mohammad Al Zahrani	
PART II: CLAUSES	
CHAPTER NINE.....	169
Circumstantial Clauses in Arabic (ḥāl clauses): Some Considerations about their Constructional Status Waldfried Premper	
CHAPTER TEN	185
Where will it End? The Continuation of Syntactic Structure beyond Sentence Boundaries. Marie-Amélie Botalla	
CHAPTER ELEVEN	203
Meta-Cognitive Analysis to Identify Category of Clauses Yousra Sabra	
CHAPTER TWELVE.....	217
The Syntactic Structure of Old Saxon Clauses Iker Salaberri	
CHAPTER THIRTEEN	233
Post-Sentence-Final Element and (Non-) Modality in Upper Sorbian Contrasted with German Equivalence Ken Sasahara	

PART III: CONSTRUCTIONS

CHAPTER FOURTEEN	255
Syntactic Nominalisation and Parts-of-Speech in Modern Standard Chinese	
Federica Cominetti	
CHAPTER FIFTEEN	275
Latvian Indeclinable Participle in <i>-am(ies)/-ām(ies)</i> and Raising vs. Control Constructions	
Andra Kalnača and Ilze Lokmane	
CHAPTER SIXTEEN	297
Extrapolation as a Cause for Word Order Change in Verb-Final Languages	
Iker Salaberri	
CHAPTER SEVENTEEN	317
Secondary Agent Constructions from the Viewpoint of a Manipulated Object	
Masaki Yasuhara	
CHAPTER EIGHTEEN	337
Perspectivising <i>ça</i> + Psych-Predicate Constructions: A Case of Actualisation?	
Eva Staudinger	
CHAPTER NINETEEN	359
The Non-Metaphoric Nature of Idioms	
Lúcia Fulgêncio and Larissa Ciriaco	
CHAPTER TWENTY	375
Dynamics of Compounding in Two Dialects of Australia's Western Desert	
Conor Pyle	
APPENDIX A	401
APPENDIX B	407
APPENDIX C	411
CONTRIBUTORS	415
INDEX OF TOPICS	423
INDEX OF AUTHORS	433

LIST OF FIGURES

- Figure 1-1: Frequency of be, have, and do in the textbook and the paper.
- Figure 1-2: Typology 1 – Examples of categorized verbs.
- Figure 1-3: Frequency of verb categories in the textbook and the paper.
- Figure 1-4: Ranking of verb categories in terms of frequency of use.
- Figure 1-5: Comparison of frequency of use between verbs most frequently used in the textbook and the paper.
- Figure 1-6: Comparison of three tiers of verbs found in the textbook and the paper.
- Figure 1-7: List of technical verbs used in the textbook and the paper.
- Figure 2-1: The ablaut patterns of the seven classes of strong verbs.
- Figure 2-2: The word concordance to the DOEC.
- Figure 2-3: Layout of the lemmatiser Norna.
- Figure 2-4: The reference list of Class VI strong verbs.
- Figure 2-5: The lemmas and inflections of Class IV.
- Figure 2-6: Attested preverbal forms and their normalisation
- Figure 2-7: Inflectional endings and their variants.
- Figure 3-1: The Ablaut patterns of the seven classes of strong verbs.
- Figure 3-2: The weak declension of the Old English adjective.
- Figure 3-3: The strong declension of the Old English adjective.⁴
- Figure 4-1: Paradigm of the preterite-present verb *cunnan* “can”
- Figure 4-2: The lemmatiser Norna and the concordance by word.
- Figure 4-3: Reference list for preterite-present verbs.
- Figure 4-4: The list of attestations of the simplex verb *can(n)*.
- Figure 4-5: Old English prefixes.
- Figure 4-6: Regularisation of the spelling variants of prefixes.
- Figure 4-7: Derived lemmas and inflectional forms proposed for preterite-present verbs.
- Figure 4-8: Comparison with the DOE.
- Figure 5-1: Linking algorithm.
- Figure 5-2: Actor undergoer hierarchy.
- Figure 5-3: Noun predicate
- Figure 5-4: Noun phrase predicate.
- Figure 5-5: Active adjective with auxiliary verb.
- Figure 5-6: Active adjective with pronoun argument.
- Figure 5-7: Causative nature of creating an object.
- Figure 5-8: Causative of intransitive verb.
- Figure 7-1: [N + egin]v classes.
- Figure 7-2: The active-rigid continuum of locutions.
- Figure 8-1: EModP Dominates TP.

- Figure 11-1: The test item about dependent clauses in the pre-test.
Figure 11-2: The test item about dependent clauses in the post-test.
Figure 11-3: Identifying and verifying an adjective clause.
Figure 11-4: Steps followed in attaining an adjective clause.
Figure 11-5: Identifying and verifying an adverb clause.
Figure 11-6: Identifying and verifying a noun clause.
Figure 16-1: Rightward movement extraposition.
Figure 16-2: Leftward movement extraposition.
Figure 18-1: Schematic representation of the [ça PRON PRED de INF PROPOSITION] construction.
Figure 18-2: Token frequencies of the pattern [ça PRON PSYCH-PRED de INF PROPOSITION].
Figure 20-1: Layered structure of the clause.
Figure 20-2: Actor Undergoer assignment.
Figure 20-3: Arguments of N-V compound.
Figure 20-4: Projection of noun-verb compound.
Figure 20-5: Serial verbs.
Figure 20-6: Nuclear cosubordination.
Figure 20-7: Clausal cosubordination with serial verb.
Figure B-1: Problems in underlining the clause 1
Figure B-2: Problems in underlining the clause 2
Figure B-3: Problems in underlining the clause 3
Figure B-4: Problems in identifying the clause 1
Figure B-5: Problems in identifying the clause 2
Figure B-6: Problems in identifying the clause 3
Figure B-7: Problems in verifying the type of clause 1
Figure B-8: Problems in verifying the type of clause 2
Figure B-9: Problems in verifying the type of clause 3
Figure C-1: Learners' responses in the post-test 1
Figure C-2: Learners' responses in the post-test 2
Figure C-3: Learners' responses in the post-test 3
Figure C-4: Learners' responses in the post-test 4
Figure C-5: Learners' responses in the post-test 5
Figure C-6: Learners' responses in the post-test 6

LIST OF TABLES

Table 1-1:	Number of words and verbs in the textbook and the paper
Table 1-2:	List of verbs most frequently used in the textbook and the frequency of their use.
Table 1-3:	List of most frequently used verbs in the paper and the frequency of their use.
Table 2-1:	Hits by strong verb class.
Table 3-1:	The inflection of the present participle. Positive.
Table 3-2:	The inflection of the present participle. Comparative and superlative.
Table 3-3:	The inflection of the past participle. Positive.
Table 3-4:	The inflection of the past participle. Comparative and superlative.
Table 3-5:	Summary by tense.
Table 3-6:	Summary by case.
Table 5-1:	Verb classes and their characteristics.
Table 5-2:	Word classes, with the three main groups.
Table 5-3:	Valence adjusting.
Table 5-4:	Inchoative and causative possibilities.
Table 6-1:	Spanish verbal classes by size.
Table 6-2:	“Regular” conjugations of Spanish.
Table 6-3:	Some “irregular” conjugations of Spanish.
Table 6-4:	Partial paradigms of some Spanish verbs.
Table 6-5:	Conjugations in Burmeso.
Table 6-6:	Pseudo-Burmeso.
Table 6-8:	Modern Russian outcomes.
Table 6-9:	Modern Spanish (=Old Spanish) verbal classes.
Table 6-10:	Judeo-Spanish verbal classes.
Table 6-11:	Affixal behaviour of two German verb classes.
Table 6-12:	Pseudo-German.
Table 6-13:	Paradigm sized according to the frequency of use of its cells.
Table 7-1:	Application of Dowty's test to Basque locutions.
Table 7-2:	Activity and Achievement classification of Basque locutions.
Table 8-1:	Types of Modality and the HA Modals.
Table 10-1:	Distribution of additions and pile by type of corpus.
Table 10-2:	Syntactic category of the head by type of corpus.
Table 10-3:	Syntactic category of the head by kind of fragment.
Table 10-4:	Syntactic category of the governor by type of corpus.
Table 10-5:	Syntactic category of the governor by kind of fragment.
Table 10-6:	Syntactic function of the fragment in relation to the governor by type of corpus.

Table 10-7:	Syntactic function of the fragment in relation to the governor by kind of fragment.
Table 11-1:	Students' responses to the instruction in the pre-test.
Table 11-2:	Students' responses to the instruction in the post-test.
Table 12-1:	Linear word order in main and subordinate clauses in Old Saxon.
Table 12-2:	Linear word order in intransitive predicates in Old Saxon.
Table 12-3:	Linear word order in transitive predicates in Old Saxon.
Table 12-4:	The relationship between discourse and word order in auxiliary clauses in Old Saxon.
Table 12-5:	Linear word order in ditransitive predicates in Old Saxon.
Table 12-6:	Word order according to type of discourse in Old Saxon.
Table 13-1:	Summary of consultants.
Table 14-1:	Relation between formal and semantic criteria of nominalization in Chinese.
Table 16-1:	Word order across the history of Sanskrit.
Table 16-2:	Word order in subordinate clauses across the history of Icelandic.
Table 17-1:	Major differences between causative alternation and induced action alternation.
Table 17-2:	The parallelism between manipulated object constructions and secondary agent constructions.
Table 18-1:	Frantext corpus sections and their sizes.
Table A-1:	The application of Dowty's tests to Basque locutions

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INTRODUCTION

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This volume brings together a collection of contributions which were originally delivered as oral presentations at the 2014 and 2016 editions of the *International Symposium on Verbs, Clauses and Constructions*, organised by the Nerthus Project Research Group, and held at the University of La Rioja.

The twenty essays in this volume provide detailed analyses of the interfaces between morphology, syntax, lexical-semantics and pragmatics, incorporating linguistic typology, corpus-based and contrastive perspectives. The book is divided in three main parts. Part I (*Verbs*) includes eight contributions centrally related to the category of the verb both from a synchronic and diachronic perspective. Part II (*Clauses*) consists of five chapters which revolve around the grammatical and discourse-pragmatic dimensions of various clause categories. Finally, the seven essays in Part III (*Constructions*) explore different formal and functional aspects of the study of particular types of constructions in a wide variety of languages.

In the first chapter in Part I (*Verbs*), Snježana Kereković presents the results of a pilot study dealing with verbs used in mechanical engineering texts. Using a sample of excerpts from two types of academic texts (a textbook and a paper), the author develops two typologies including the frequency of use of the different verb categories in the two sources. In the first typology, verbs are grouped in semantic types as activity, communication, mental, causative, occurrence, existence, and aspectual verbs. The second typology is based on three levels of lexical verbs: general English verbs, general scientific verbs and technical verbs. This

chapter also offers discussion on the practical implications for teaching technical English and academic writing to students of mechanical engineering.

The next three chapters in the first part of the volume are concerned with the morphology of Old English. Darío Metola Rodríguez centres on the process of lemmatisation of strong verb forms in the *Dictionary of Old English Web Corpus* (Healey *et al.* 2004), which comprises around three million words and represents the most authoritative corpus in the field of Anglo-Saxon studies. The design of a lemmatisation method has aimed at maximising the automatic search for the inflectional forms of the verbs under analysis, with the corresponding minimisation of manual revision. The search algorithm, which consists of query strings and filters, has been launched on the lemmatiser *Norna*, a building block of the relational lexical database of Old English *Nerthus*.

Ana Elvira Ojanguren López tackles the issue of verbal and adjectival inflection in the Old English present and past participles. The author assesses the variation in the inflection of the participle, addressing two main research questions. On the one hand, the data from the *Dictionary of Old English Web Corpus* (Healey *et al.* 2004) indicate that the loss of adjectival morphological endings takes place in the Old English period. On the other hand, the analysis of the past participles of the strong verbs reflects morphological variation: the past participle appears to be losing adjectival morphology faster than the present participle, while the inflections for the accusative singular and the dative plural are shown to be disappearing at a higher pace than the inflectional endings for other cases.

Laura García Fernández describes the process and main results of the lemmatisation of preterite-present verbs of Old English. The focus is on derived verbs and the main aim has been to relate the attestations of these verbs to a lemma inflected for the infinitive. The methodology used combines automatic searches on the lemmatiser *Norna* and manual revision. As in the two previous chapters, the data have been retrieved from *The Dictionary of Old English Web Corpus* (Healey *et al.* 2004). The analysis that has been carried out shows the limits of automatic lemmatisation, since the automatic searches have not proved accurate enough. Therefore, the author concludes that manual revision is essential to achieve exhaustive and accurate lemmatisation.

Conor Pyle's chapter is firmly embedded within the framework of Role and Reference Grammar, a structural-functional grammar with a strong concern for universality and typological adequacy (see Van Valin 1993: 63). This contribution explores the derivation of verbs from nominals in three dialects of Australia's Western Desert, Pitjantjatjara, Yankunytjatjara

and Ngaanyatjarra. The corpus for this study is based on published transcripts of material from these dialects, which are primarily spoken languages. The notion of linguistic valence is central to a study which investigates how syntactic, semantic and “macrorole valence” is manifest and altered as attested by the argument case and logical structure of the derived verbs. It is also shown that derivation exists “on a spectrum with compounding” in these languages where the use of suffixes is frequently used to change one part of speech to another.

The chapter by Borja Herce Calleja has as its main aim “to raise awareness that information-theoretic analyses of inflectional systems cannot exist in a vacuum”. The author argues that some of the measures of complexity that arise from information theory do not seem to be compatible with language-internal and diachronic evidence. The analysis of analogical changes in the Spanish and Judeo-Spanish verb systems casts doubts on the validity of the notion of predictiveness as a measure of morphological complexity. The conclusion is reached that the new approach to the analysis of inflection systems should profit from insights from other research paradigms, and that analogical developments can be used as a source of external evidence.

The chapter by Mohammad Al Zahrani examines the interface between the morphosyntactic and semantic properties of the Hijazi Arabic (henceforth HA) epistemic modals. The author identifies a precise syntactic position relative to other functional categories for the epistemic modals, showing that the epistemic modal projection interacts with the other functional projections in both verbal and non-verbal clauses. This study demonstrates that the syntactic behaviour of HA modals is similar to that revealed by previous cross-linguistic analyses of modality types, such that epistemic modals are generated above TP while non-epistemic modals (deontic and dynamic) are generated below TP.

The last chapter in Part I, by Arantzazu Martínez Etxarri, analyses a wide corpus of light [N + *egin*]V constructions in Basque. The author applies semantic and syntactic tests to a corpus of locutions taken from samples of Basque literature and press. It is argued that, in addition to syntactic incorporation, semantic incorporation is needed to account for the unitary concept of all these locutions which are explained by reanalysis in the sense of Jackendoff (1990). The author concludes that [N + *egin*]V constructions constitute an heterogeneous group of verbs, and point out that those light verbs showing an ambiguous behaviour may be part of the incorporated ones in the future.

Part II opens with a contribution by Waldfried Premper. With this chapter we come to a group of contributions concerned with the study of

the clause. Premper deals with the syntactic status of a non-subordinate clause in Arabic grammar (the so-called *ḥāl* clause). The author shows that this type of circumstantial clause can be conceived of as a family of related variants which gradually differ in their interclausal coalescence, forming a continuum or scale of instances which themselves can be regarded as prototypes. Empirical evidence in this study is gathered from a collection of 3,000 clauses from written narrative prose.

Marie-Amélie Botalla's contribution focuses on non-sentential utterances in French. More specifically, the author provides a syntactic account of *fragments*, one type of non-canonical utterance which is not independent from its antecedent. She carries out a study on a corpus of data in spoken and written French, focusing on the syntactic relation between the fragment and the previous utterance. Botalla's corpus-based study shows that fragments can either open a new syntactic position or pile up on an already filled position.

Yusra Sabra's chapter puts forward a meta-cognitive analysis to identify category of clauses in an ESL (English as a Second Language) context. Following a quasi-experimental quantitative approach, including a pre-test (a diagnostic exam) and a post-test (the final exam), the author investigates the challenges first-year university Lebanese students face when identifying noun, adjective and adverb clauses in a *form-focused instruction* class, which highlights the significance of the learner's own "built-in syllabus". The results of the study show that applying cognitive and meta-cognitive linguistic strategies in addition to linguistic analysis and positive transfer had a positive impact on the linguistic performance of students and on their ability to postulate proper verification to their answers.

The contribution by Iker Salaberri deals with the syntactic structure of Old Saxon (OS) clauses. The aim of this chapter is to determine the unmarked (or neutral) word order of OS clauses as attested in four *Heliand* fragments. The author carries out a quantitative analysis looking for correlations between argument structure, the clause type, linear word order and discourse type. The study shows that a purely syntactic approach toward the determination of linear word order in Old Saxon is clearly inadequate. The author advocates for a more comprehensive approach taking syntactic, pragmatic and discourse factors into account.

The final chapter in Part II is also concerned with aspects of word order and with the correlation between grammatical and discourse-pragmatic factors in Upper Sorbian, a West Slavonic language spoken in Germany with no rigid word order between sentence elements. Applying a contrastive methodology with German, Ken Sasahara presents a

descriptive overview of “post-sentence-final” elements in Upper-Sorbian. Post-sentence-final elements are divided into two types: modal and non-modal. Non-modal elements (i.e. the relative clause, the genitive modifier, the prepositional phrase, the subordinate clause and paraphrasing) are used to provide additional information. As to the function modal elements, the author shows that they signal not only the speaker’s attitude but also sentence closing.

With Federica Cominetti’s contribution we move to Part III of the volume, comprising seven chapters devoted to the study of morphological, morphosyntactic and idiomatic constructions. Cominetti deals with syntactic nominalization and the distinction of parts of speech in Modern Standard Chinese (henceforth MSC), also providing interlinguistic comparison with Italian and English. The author examines the two types of strategies for syntactic nominalization attested in MSC: marked nominalizations refer to first-order entities, while second- and third-order entities are realized through unmarked nominalization. The fact that MSC marks nominalized forms differently according to the kind of entity they refer to shows that the basis for the parts-of-speech distinction lies in Lyons’ (1977) semantic categorization into between first-, second- and third-order entities, which shows that pre-categoriality in the lexicon cannot be taken for granted in this language.

The chapter by Andra Kalnača and Ilze Lokmane is an empirical study of Latvian syntactic constructions with the indeclinable participle in *-am(ies)/-ām(ies)*, traditionally considered as raising constructions. The authors examine the linguistic processes of raising and control and then proceed to present a detailed overview of all possible matrix verbs occurring in the different raising constructions with indeclinable participles in Latvian. This study shows that the Latvian indeclinable participle in *-am(ies) /-ām(ies)* is more present in control rather than in raising constructions. It is also argued that these control constructions are syntactically heterogenous, due to the semantic variability of the matrix verb. The authors’ findings show the need for an overall typological re-examination of raising and control constructions across languages.

In his second contribution to this collective volume, Iker Salaberri discusses the phenomenon of extraposition as a cause for word order change in verb-final languages. The author’s main aim is twofold: on the one hand, he takes on the task to defining the cross-linguistic relationship between extraposition and word order change; on the other, he attempts to explain why extraposition does not necessarily trigger word order change in some verb-final languages such as Basque and Georgian. Salaberri provides a diachronic analysis of extraposition in a number of verb-final

languages and concludes that extraposition-driven word order change may be related to focus position.

Masaki Yasuhara's chapter explores the parallelism between two types of construction in English: the "secondary agent construction" (e.g. *The nurse walked the patient to the room*) and the "manipulated object construction" (e.g. *John hit the hammer/his head against the wall*). The author discusses the main syntactic and lexico-semantic features of both constructions (transitive variants of the induced alternation and the causative alternation, respectively) and defines the object participant of secondary agent constructions as a manipulated object, controlled by the subject participant and undergoing the event denoted by the verb.

Eva Staudinger's contribution presents a detailed analysis of a construction type in French where psych predicates acquire an evaluative discourse function, addressing the question whether this construction is indeed a case of actualisation in the sense of De Smet (2012). Using data from the Frantext corpus, a reference text base for French that mainly includes literary texts, Staudinger looks at the meaning and function of the perspectivising *ça* psych-predicate construction. The corpus-based analysis suggests that the emergence of the construction, which is not a paradigm case of grammaticalisation, appears to be related to the development of narrative techniques.

The chapter by Lúcia Fulgêncio and Larissa Ciriaco argues for the non-metaphoric nature of idioms. Set within the framework of Construction Grammar, this contribution presents idioms as a special type of construction, which is conventionalized and idiosyncratic as to lexical filling, semantics and syntax. Through analysis of idioms in English, Spanish and Portuguese, the authors put forward a constructionist account of idioms as form-meaning pairs in the sense of Goldberg (1995). The authors' main claim in this chapter is that idioms are "memorised chunks of language" which do not involve any metaphorical interpretation process at the synchronic level, being retrieved from memory by the speaker/hearer.

Conor Pyle examines the dynamics of compounding in the Australian dialects Pitjantjatjara and Yankunytjatjara (henceforth P/Y). As in the case of his previous contribution in Part I, this study is couched within the Role and Reference Grammar framework. The author shows that compounding is very productive in these two dialects, but does not represent incorporation. Noun to verb compounding is a common feature of P/Y and the effect is generally to produce an idiosyncratic verb with the same transitivity as the original verb. Derivation is another means of word formation. P/Y has productive affixing processes where verbs are nominalised and nominals turned into verbs.

All in all, the twenty contributions in this volume primarily relate to the main tenet of functionalism, namely, that “the linguistic system is not self-contained, and autonomous from external factors, but is shaped by them” (Butler 2005, 4). The book offers a variety of methodological tools and analytical issues concerning the study of different aspects of the role of verbs, clauses and constructions in a rich variety of languages such as Present-Day English, Old English, Old Saxon, French, Spanish, Basque, Georgian, Sanskrit, Arabic, German, Upper Sorbian, Latvian, Sino-Tibetan, Niger-Congo and the dialects Pitjantjatjara, Yankunytjatjara and Ngaanyatjarra, three closely related suffixing languages of Australia’s Western Desert language group. The use of empirical data and the wide range of languages that are the object of study in this scholarly collection of papers become the two main challenges that the book addresses, as we (the editors) envisage it. We believe that the book can contribute to the current literature on functional-oriented linguistics and can also be of interest to scholars working within more cognitively-oriented theories along the “functional-cognitive space” (González-García and Butler 2006).

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LIST OF ABBREVIATIONS

1: 1st person	DEP: Dependency (where the governor is not a verb)
2: 2nd person	DISTR: Distributional
3: 3rd person	DS: Different subject
ABL: Ablative	DU: Dual
ABS: Absolutive	ERG: Ergative
ACC: Accusative	F: Feminine
AD: Adjunct	FUT: Future
ADJ: Adjective	GEN: Genitive
ADV: Adverb	HABIT: Habitual
AFF: Affix	HARM: Harmful
ANT DS: Anterior different subject (Circumstantial)	IMP: Imperative
ARG: Argument	INCH: Inchoative
ASP: Aspect	IND: Indeclinable
AUX: Auxiliary	INDV: Indicative
BEC: Become	INDF: Indefinite
CAUS: Causative	INF: Infinitive
CIRCL-A: Asyndetic circumstantial clause	INGR: Ingressive
CIRCL-S: Syndetic circumstantial clause	INSTR: Instrumental
CL: Classifier	INT: Interest
COLL: Collective	IPFV: Imperfective
COMP: Complementiser	KH. 'A: Khalifa, Sahar 1980
CONJ: Conjunction	LOC: Locative
CONT: Continuous aspect	M: Masculine
COP: Copula	N: Noun
CS: Change of state	NB: Number
DAT: Dative	NEG: Negation-negative
DE: Nominal modification and nominalisation	NOM: Nominative
DECAUS: Decausative	NOML: Nominalised
DEF: Definite	NP: Noun phrase
DEL: Delimitative	NUC: Nucleus
DEM: Demonstrative	OBJ: Object
	PA: Prior action
	PASS: Passive
	PERFP: Perfect participle

PERS: Person	PURP: Purposive
PFV: Perfective	RECP: Reciprocal
PL: Plural	REFL: Reflexive
PN: Proper name	REL: Relative
P.PART: Past participle	RP: Referential phrase
PRED: Predicate	SBJV: Subjunctive
PREP: Preposition	SER: Serial participle
PRET: Preterite	SG: Singular
PRET PRS: Preterite present	SS: Same subject
PROC: Process	STR: Strong (verb)
PROG: Progressive	SUB CONJ: Subordinate conjunction
PRON: Pronoun	SUBJ: Subject
PRS: Present	SUP: Superlative
PRS PART: Present participle	TURN: Turning point
PST: Past	V: Verb
PTA: Active participle	VN: Verbal noun
PTCL: Particle	WK: Weak (verb)
PTCP: Participle	
PTP: Passive participle	

PART I

VERBS

CHAPTER ONE

TYOLOGIES OF VERBS USED IN MECHANICAL ENGINEERING TEXTS

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1. Introduction

The chapter presents a part of a pilot study designed to focus on verbs used in mechanical engineering texts from the perspectives of vocabulary and grammar. The study investigated categories of verbs used in two types of mechanical engineering texts (vocabulary) as well as the frequency of passive sentences and postmodifying (*-ing* and *-ed*) clauses (grammar) in the two text types. This chapter focuses on the vocabulary, i.e. on the verb categories.

In academic scientific writing nouns and complex noun phrases are “das tragende Gerüst einer Fachsprache” (Zima 2000, 882), i.e. the main carriers of information. The majority of terms are nouns and noun compounds, thus studies dealing with the terminology of a specialised field mostly focus on nouns, nominal multiword expressions and nominalisations (e.g. Bartolić 1978; Master 2003; Holtz 2009; Biber and Gray 2013).

Verbs seem to occupy a minor role in scientific writing, and indeed they predominantly connect the subject of a sentence to additional information about the subject (e.g. copula *be*). A study by Frels *et al.* (2010) investigates the use, inaccurate use, and overuse of verbs found in scholarly writing and points to the importance of using appropriate verbs to maximise meaning and clarity in writing. The investigation resulted in a typology of verbs; the authors categorised verbs for scholarly writing as verbs representing statement, verbs representing cognition, and verbs representing knowledge or action.

The aims of this study are twofold: 1) to extract verbs used in two types of academic texts and to compare their use, and 2) to consider practical implications of the results of the study for teaching technical English and academic writing to students of mechanical engineering. The first aim of the study has also led to the creation of two typologies of verbs used in mechanical engineering texts.

2. Corpus and method

The corpus is genre-based. It is composed of two text types belonging to academic genre¹ in the specialised field of engineering design. Engineering design is the process by which the goals of engineering, such as the creation of systems, devices, and processes useful to and sought by society, are achieved².

One source of the corpus is a textbook for students of mechanical engineering, *Design of Machinery* by Robert L. Norton, from which the chapter *Engine Dynamics* (1999, 598-617, 631-635) was chosen.³ The other source is the scientific paper titled *A procedure for evaluating the applicability of a control proxy function to optimal co-design* by Diane L. Peters, published in *Journal of Engineering Design* (2016, 515-543). The textbook chapter describes the design of a slider-crank linkage, a device used in the internal combustion engine, while the paper deals with optimisation in the design of a system.

Two common features of textbook, on the one hand, and paper as a representative of scholarly articles, on the other, allow comparison, namely, both of them belong to the same academic genre, and both of them may be and quite often are written by the same authors, university teachers. The difference between the two text types in terms of their purpose (textbooks include established knowledge presented for educational purposes, whereas papers present recent developments in a scientific field for informative purposes) may influence the selection of verbs used in either of the two text types.

Approximately 25 pages extracted from the textbook contain 8,544 words and the paper contains 7,874 words. In both cases, the selected pages were scanned and converted to a word document in which it was possible to highlight the verb forms of interest: lexical/full verbs (including main verbs, participle forms and infinitive forms) and the verbs *be*, *have*, and *do* functioning as main verbs. Different colours were used to highlight different verb forms: main verbs were highlighted in green, other lexical/full verbs (participle and infinitive forms) in pink, and *be*, *have*, and *do* having the main verb function in yellow.

3. Results

In total, 1,044 verbs were found in the textbook whereas the paper contained 837 verbs. In addition to these figures, Table 1-1 gives the total number and percentage of lexical verbs: in the textbook, there are 864 lexical verbs (main verbs, participles and infinitives), which make 83% of all verbs used in the textbook, whereas in the paper, there are 596 lexical verbs, which amount to 71% of all verbs used in the paper. Comparing the amount of the verbs *be*, *have*, and *do* in the textbook and the paper, 180 (equal to 17%) uses of the verbs *be*, *have*, and *do* were found in the textbook as opposed to 241 (equal to 29%) found in the paper. The number of different lexical verbs including *be*, *have*, and *do* in both types of text (245 in the textbook and 147 in the paper) is also given in Table 1-1. The fact that 71% of all verbs used in the scientific paper are lexical verbs as opposed to 83% of all verbs used in the textbook may be seen as an interesting finding, showing a more frequent use of the verbs *be*, *have*, and *do* in the paper than in the textbook.

	Textbook	Paper
Word number	8,544	7,874
Verbs in total	1,044	837
Lexical verbs	864 or 83%	596 or 71%
Be-have-do	180 or 17%	241 or 29%
Different lexical verbs + be, have, do	242 + 3 = 245	144 + 3 = 147

Table 1-1: Number of words and verbs in the textbook and the paper.

Copula *be* occurs commonly in academic prose (Biber *et al.* 1999, 437) whereas the other two verbs functioning as main verbs, *have* and *do*, are much less common. This analysis has also shown that the verb *be* is predominantly used in both text types, and indeed it is more frequently used in the paper than in the textbook (frequencies of 235 and 149, respectively). The verbs *have* and *do* are only occasionally used as main verbs; *have* is used only 5 times and *do* only once in the paper, whereas in the textbook, *have* is used more frequently, 22 times, and *do* is used 9 times (Figure 1-1).

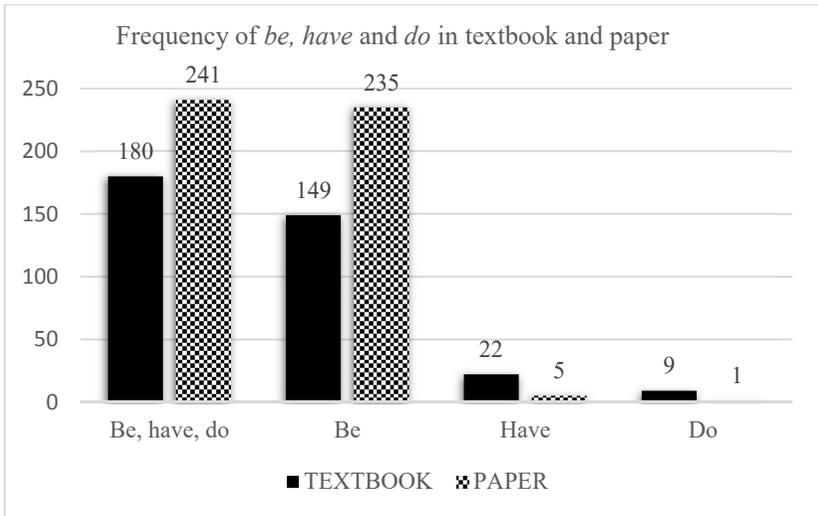


Figure 1-1: Frequency of *be*, *have*, and *do* in the textbook and the paper.

The verb *be* functioning as main verb (copula *be*) is typically used in the textbook (TB) and the paper (P) as follows:

- (1) The most usual arrangement **is** an inline engine... (TB)
 ...the moment arm for the gas force at those points **is** zero. (TB)
 Two-stroke cycle Diesel engines **are** quite common. Diesel fuel **is** a better lubricant than gasoline. (TB)
 Optimisation **is** a useful tool in the design of many systems (P)
 Other approaches **are** sequential, in which... (P)
 ... to determine whether the CPF approach **is** appropriate. (P)

Typical uses of the verb *have* in the textbook (TB) and the paper (P) are illustrated by the following examples:

- (2) a. The meaning of possession
 It (i.e. the engine) **does not have** a camshaft or valve train or cam drive gears to add weight and bulk to the engine. (TB)
 High-performance engines may **have** titanium connecting rods. (TB)
 Expand this expression and neglect any terms containing the conrod crank ratio r/l raised to any power greater than one since these **will have** very small coefficients as was seen in equation 13.2. (TB)