



**UNIVERSIDAD
DE GRANADA**

**MARKEDNESS IN THE ADJECTIVE/ADVERB
INTERFACE**

DOCTORAL THESIS

Sandra Jiménez Pareja

Supervised by

Dr. Salvador Valera Hernández (University of
Granada)

Prof. Jan Čermák (Charles University)

Programa de doctorado en Lenguas, Textos y Contextos

Granada, 2024

Editor: Universidad de Granada. Tesis Doctorales
Autor: Sandra Jiménez pareja
ISBN: 978-84-1195-478-5
URI: <https://hdl.handle.net/10481/96218>

CONTENTS

ACKNOWLEDGEMENTS	viii
ABBREVIATIONS	ix
ABSTRACT	x
RESUMEN	xi
1 INTRODUCTION	1
1.1 Introduction	2
1.2 Justification and objectives	3
1.3 Structure and contents	4
1.4 Typographical conventions	4
2 THE CLASSIFICATION OF WORD-CLASSES. ADJECTIVES, ADVERBS, AND THEIR INTERFACE	6
2.1 Introduction	7
2.2 General classification of word-classes	8
2.3 Classifications of word-classes in English	9
2.3.1 The traditional classification	11
2.3.2 Parts of speech and function words	12
2.3.3 Word-class underspecification	13
2.4 Adjectives and adverbs	14
2.4.1 The diachronic evolution of adjectives and adverbs	14
2.4.1.1 The development of adjectives	15
2.4.1.2 The development of adverbs	19

2.4.1.3	Common features of adjectives and adverbs in their diachronic development	21
2.4.2	Synchronic classifications of adjectives and adverbs	24
2.4.2.1	General remarks in the classification of adjectives and adverbs	24
2.4.2.2	The semantics of adjectives and their ability to derive adverbs	28
2.4.2.3	The adjective/adverb interface	31
2.4.2.4	Inflection and derivation: The classification of <i>-ly</i> and its role in word-class specification	35
2.4.3	Markedness: The relevance of the suffix <i>-ly</i>	40
2.4.3.1	Unmarked units	41
2.4.3.1.1	General remarks	42
2.4.3.1.2	Adverbial meaning	49
2.4.3.2	Marked units	51
2.4.3.2.1	Subject-orientation	51
2.4.3.2.1.1	Valency	54
2.4.3.2.2	Subject-relatedness	56
2.5	Summary	61
3	METHOD	63
3.1	Introduction	64
3.2	Corpora	64
3.2.1	Synchronic corpora	66
3.2.1.1	The British National Corpus	66
3.2.1.2	The Corpus of Contemporary American English	67
3.2.1.3	Justification	67
3.2.2	Diachronic corpora	68
3.2.2.1	Dictionary of Old English Web Corpus	68
3.2.2.2	Middle English Dictionary	68
3.2.2.3	The Historical Thesaurus of English	69
3.2.2.4	Justification	70
3.3	Data collection	70
3.3.1	Non-inherent adjectives	71
3.3.2	Subject-relatedness	74
3.3.2.1	Synchronic data	74
3.3.2.2	Diachronic data	79
3.4	Data analysis	82
3.4.1	Non-inherent adjectives	82
3.4.2	Subject-relatedness	86

3.4.2.1	Semantic analysis	86
3.4.2.2	The classification of adjectives	90
3.5	Summary	91
4	RESULTS AND DISCUSSION	93
4.1	Introduction	94
4.2	Results	95
4.2.1	Non-inherent adjectives	95
4.2.1.1	Qualitative analysis	95
4.2.1.1.1	Modifiers: intensifiers	95
4.2.1.1.2	Adverbials	99
4.2.1.2	Quantitative analysis	104
4.2.1.2.1	The semantics of non-inherent adjectives	104
4.2.1.2.2	Semantic patterns of non-inherent adjectives and nouns	105
4.2.2	Subject-relatedness	108
4.2.2.1	Qualitative analysis	108
4.2.2.1.1	Semantic patterns	108
4.2.2.1.1.1	Dynamic verbs	108
4.2.2.1.1.2	Stance verbs	114
4.2.2.1.1.3	Stative verbs	117
4.2.2.1.1.4	Copulative verbs	121
4.2.2.1.2	Special cases	124
4.2.2.1.2.1	The morphology of adjectival bases	124
4.2.2.1.2.2	The characterization of syntactic objects	127
4.2.2.1.2.3	Polysemy and types of subject-relatedness	128
4.2.2.1.3	Stative adjectives and <i>-ly</i> suffixation	136
4.2.2.1.3.1	The subject	137
4.2.2.1.3.2	The verb phrase	140
4.2.2.1.3.3	The subject-related adverb	147
4.2.2.1.3.3.1	Control	147
4.2.2.1.3.3.2	Temporariness	150
4.2.2.2	Quantitative analysis	153
4.2.2.2.1	Semantic patterns	154
4.2.2.2.2	Semantic features of adjectival bases	155
4.2.2.2.3	Register	158
4.2.3	Summary	163
4.3	Discussion	165
4.3.1	Introduction	165

4.3.2	The profile of <i>-ly</i> words	166
4.3.3	Inflection and derivation in the adjective/adverb interface	169
4.3.4	The value of <i>-ly</i> and the category status of adjectives and adverbs	173
4.3.5	Summary	175
5	CONCLUSIONS	177
5.1	Introduction	178
5.2	Background	178
5.3	Conclusions	179
5.4	Limitations and further research	182
5	CONCLUSIÓN	185
5.1	Introducción	186
5.2	Antecedentes	186
5.3	Conclusiones	187
5.4	Limitaciones y posibles investigaciones futuras	189
APPENDICES		192
REFERENCES		236
	<i>Resumen extenso de la tesis (mención internacional)</i>	256

FIGURES

Figure 1. Giegerich (2012) on the place of adverbs in derivational morphology	40
Figure 2. Heidinger's (2014) representation of adverbial and adjectival functions in Spanish	52
Figure 3. A screenshot of the results obtained using the query syntax [v*] *ly.[R] in the BNC	75
Figure 4. A screenshot of results obtained using the query syntax [vvd*] *ly.[R] in the BNC	76
Figure 5. A screenshot of information returned by the corpus using the query syntax [vvd*] *ly.[R] (!) be*, [vvd*] *ly.[R] (!) have* and [vvd*] *ly.[R] be* in the BNC	77
Figure 6. A screenshot of results obtained using the query syntax a*.[vvd*] *ly.[R], b*.[vvd*] *ly.[R], c*.[vvd*] *ly.[R], etc. until completion of the alphabet where frequency 1 was reached	78
Figure 7. A screenshot of the list of adverbs obtained in the A-I entries of the DOE and examples of the information provided in the entries	80
Figure 8. A screenshot of an example of the information obtained for the analysis of ME adverbs	81
Figure 9. Semantic classification of adverbial meanings displayed by non-inherent adjectives (percentages)	104
Figure 10. Semantic classification of the adverbial meanings displayed by non-inherent adjectives (absolute values)	105

Figure 11. Combination of inherent and non-inherent adjectives with nouns according to semantic type (percentages)	106
Figure 12. Combinations of non-inherent adjectives with nouns according to semantic type (absolute values)	106
Figure 13. Combinations of non-inherent adjectives and nouns according to semantic types (percentages)	107
Figure 14. Combinations of non-inherent adjectives and nouns according to semantic type (absolute values)	108
Figure 15. Semantic patterns used in OE, ME, and PDE (percentages)	155
Figure 16. Semantic patterns used in OE, ME, and PDE (absolute values)	155
Figure 17. Semantic types of adjectives in OE, ME, and PDE (percentages)	156
Figure 18. Semantic types of adjectives in OE, ME, and PDE (absolute values)	156
Figure 19. Classification of adjectives with the semantic features [CONTROL] and [TEMPORARINESS] in OE, ME, and PDE (percentages)	157
Figure 20. Classification of adjectives with the semantic features [CONTROL] and [TEMPORARINESS] in OE, ME, and PDE (absolute values)	157
Figure 21. The distribution of the results in the BNC and COCA	159
Figure 22. The distribution of the results in OE and ME for the register prose.	161
Figure 23. The distribution of the results in OE and ME for the register poetry.	162
Figure 24. Concordances for the register fiction in OE, ME and PDE (percentages)	163

TABLES

Table 1. Strong and weak declension of the adjective <i>gōd</i> ‘good’	16
Table 2. Declension of adjectives after the reduction of the inflectional system	18
Table 3. The comparative and the superlative degree of OE adjectives	21
Table 4. The comparative and the superlative degree of OE adverbs	22
Table 5. Types of predicates proposed by Levi (1978)	45
Table 6. Types of nominalizations proposed by Levi (1978)	46
Table 7. Search syntax used for collection of non-inherent adjectives and number of concordances obtained and analyzed	73
Table 8. Search syntax used for collection of non-inherent adjectives and number of concordances obtained and analyzed	74
Table 9. List of tags used for retrieval of bigrams in frequency 1 and length of every list in the BNC and COCA.	79
Table 10. Template for the semantic analysis of non-inherent adjectives.	85
Table 11. Template for the semantic analysis of clause constituents	89

Table 12. Template for the semantic analysis of adjectival bases in the data sample of OE, ME and PDE	91
Table 13. The distribution of results according to register in BNC and COCA	159
Table 14. The distribution of the results in OE and ME for the register <i>prose</i> .	160
Table 15. The distribution of the results in OE and ME for the register <i>poetry</i> .	161

Acknowledgements

First and foremost, I would like to express my deepest gratitude to my supervisors, Dr. Salvador Valera Hernández and Prof. Jan Čermák. I am extremely grateful for your constant support, your invaluable guidance and your endless patience. This thesis would have not been possible without you.

I am also grateful to Dr. Pavlína Šaldová and Dr. Magda Ševčíková for their help during my research stay and their comments on the data.

I would also like to thank my friends and PhD colleagues, Leti, Paola, Patty and Silvija for being by my side during these years.

Special thanks go to my family for their unconditional support and understanding. They have fueled my determination to pursue my goals.

Abbreviations

A	Adjective
BNC	British National Corpus
CMEPV	Corpus of Middle English Prose and Verse
COCA	Corpus of Contemporary American English
COP	Copulative
DOE Web Corpus	Dictionary of Old English Web Corpus
EModE	Early Modern English
LModE	Late Modern English
LOC	Locative
ME	Middle English
N	Noun
NN	Noun-noun compound
NP	Noun phrase
OE	Old English
OED	Oxford English Dictionary
PDE	Present Day English
POSS	Possesive
RAdjN	Relational adjective-noun
V	Verb

ABSTRACT

Adjectives and adverbs are traditionally considered two separate grammatical categories. However, some members of these word-classes display features that are typically associated with the other word-class so that the limits between adjectives and adverbs are not clear-cut. The units that do not display the prototypical behavior associated with each word-class are found in the adjective/adverb interface (Hummel 2014). This interface includes a wide variety of marked and unmarked units among which non-inherent adjectives and subject-related *-ly* adverbs are found. Non-inherent adjectives have been defined as a type of predicative-only adjective that does not directly characterize the noun it precedes (Bolinger 1967). These adjectives have extensively been studied, but previous research has focused on, for instance, their relation to nouns (Levi 1978) and their relation to adverbs has received less attention. Subject-related *-ly* adverbs have been defined as subject-oriented *-ly* adverbs that do not perform the syntactic function adverbial and only retain the predicative function typically performed by adjectives (Díaz-Negrillo 2014; Valera 2014). These *-ly* words are almost unexplored units that have been reported to occur in a narrow semantic class of adjectives, namely color adjectives (Valera 2014). This thesis centers its attention in non-inherent adjectives expressing adverbial senses and subject-related *-ly* adverbs outside color adjectives in the different periods of the language.

Based on the analysis of over 100,000 concordances extracted by lemma from the *British National Corpus* and the *Corpus of Contemporary American English*, the present thesis provides quantitative and quantitative data of the adjectives and adverbs in question. Besides, diachronic data of subject-relatedness relies on the analysis of the adverbial entries available in *Dictionary of Old English* and their adverbial counterparts in the *Middle English Dictionary and the Corpus of Middle English Prose and Verse*. The results show the semantic profile of non-inherent adjectives and nouns in the combinations found and the variety of adverbial senses expressed by these adjectives. Regarding subject-relatedness, the results show that these *-ly* units occur in every period of the language and that their properties are diverse through these periods. The interpretation of these results shed some light on the classification of *-ly* as an inflectional or derivational suffix and the classification of adjectives and adverbs, especially the classification of subject-related *-ly* adverbs.

Keywords: adjectives, adverbs, interface, inflection, derivation, *-ly* suffixation

RESUMEN

Las clasificaciones de clases de palabras tradicionales consideran que adjetivos y adverbios son dos categorías gramaticales diferentes, estando los primeros asociados con la expresión de cualidades o estados de un sustantivo y los segundos con la expresión de circunstancia o manera. Sin embargo, algunos miembros de estas clases de palabra tienen la habilidad de llevar a cabo funciones que han sido típicamente asociadas a la otra clase de palabra. Este comportamiento nos muestra cómo los límites entre dichas categorías gramaticales no están claramente demarcados. Por consiguiente, el espacio donde se mezclan estas clases de palabras y se dificulta su diferenciación ha sido denominado ‘interfaz adjetivo/adverbio’ (Hummel 2014). Esta interfaz incluye unidades morfológicamente marcadas y no marcadas entre las que se pueden encontrar los adjetivos no inherentes y los adverbios relacionados con el sujeto. Los adjetivos no inherentes son un grupo de adjetivos atributivos que no caracterizan al sustantivo que preceden y que expresan significado adverbial (Bolinger 1967). El estudio de estos adjetivos se ha centrado en las unidades que están relacionadas con la clase de palabra sustantivo (Levi 1978) y su relación con los adverbios ha sido menos estudiada. Los adverbios relacionados con el sujeto han sido definidos como adverbios orientados al sujeto que no realizan una función adverbial y solo retienen la función predicativa normalmente asociada a los adjetivos (Díaz-Negrillo 2014; Valera 2014). Los estudios sobre estos adverbios han identificado esta propiedad en un grupo de adjetivos concreto, específicamente adjetivos de color (Valera 2014). La presente tesis investiga adjetivos no inherentes con significado adverbial y adverbios relacionados con el sujeto con bases adjetivales diferentes a los adjetivos de color. El estudio de adverbios relacionados con el sujeto abarca todos los periodos de la lengua inglesa.

Tras el análisis de más de 100.000 concordancias extraídas de los corpus *British National Corpus* y *Corpus of Contemporary American English*, esta tesis presenta datos cuantitativos y cualitativos de los adjetivos y adverbios en cuestión. Además de los datos sincrónicos, el estudio diacrónico de adverbios relacionados con el sujeto se basa en el análisis de todos los registros adverbiales disponibles en *Dictionary of Old English Web Corpus* y sus homólogos en *Middle English Dictionary* y *the Corpus of Middle English Prose and Verse*. Los resultados muestran el perfil semántico de adjetivos no inherentes y los sustantivos con los que se combinan, así como la variedad de significados adverbiales expresados por estos adjetivos. En cuanto a los adverbios relacionados con el sujeto, los resultados muestran las propiedades comunes y características de estos adverbios en los diferentes periodos de la

lengua. La interpretación de estos resultados puede repercutir en la clasificación del sufijo *-ly* como flexivo o derivativo y en la clasificación que corresponde a adjetivos y adverbios, concretamente a los adverbios relacionados con el sujeto.

Palabras clave: adjetivos, adverbios, flexión, derivación, interfaz, sufijo *-ly*.

1. INTRODUCTION

1.1 Introduction

The approaches to the classification of the lexical items in the English language are not unanimous. Some classifications, based on morphological grounds e.g. Michael 1970, have been widely accepted and used to describe word-classes in traditional grammars, while others, based on syntactic grounds e.g. Fries 1952, have not received much attention and are not so commonly used. However, all the classifications have a common factor and it is that they fail to provide general criteria for all the lexical units within a grammatical category. The units that, being classified in a category, show features of a different grammatical category and, therefore, cannot be classified in any category illustrate how fuzzy the boundaries between word-classes are. This leads to the existence of the categorial space or interface between word-classes. This is a space where the properties of words are mixed and lexical items cannot be clearly classified within a specific grammatical category.

In the categorial space between adjectives and adverbs there are different lexical units that go beyond the limits of their word-class since they can display properties associated with both word-classes. Two of the units that can be found in this interface are non-inherent adjectives and subject-related *-ly* adverbs. These terms are used to refer to *-ly*-unmarked units that perform a function typically associated with *-ly*-marked unit and lexical units that show the opposite behavior. In the group of adjectives classified as non-inherent adjectives, there are various types of units. Some non-inherent adjectives have been studied in relation to nouns so that they are in the adjective/noun interface, while others are related to the word-class adverb. The latter group is concerned with adjectives that perform functions such as modification (as intensifiers) or can express adverbial meanings such as SPACE or TIME LOCATION. In addition to these adjectives, there is a type of adverb, namely subject-related *-ly* adverb,

that can be found in this interface as well. This is an adverb that only performs the predicative function characteristic of adjectives.

These controversial units lead to the study of the classification of adjectives and adverbs, and the revision of the classification of these two grammatical categories as one word-class. A different classification of adjectives and adverbs as one word-class would also affect the classification of the suffix *-ly*. The value of this suffix and its classification as an inflectional or derivational suffix has been the subject of a lively discussion that is still unresolved. Thus, the study of the aforementioned units in the adjective/adverb interface and the value of the suffix *-ly* is the focus of the analysis of the current dissertation.

1.2 Justification and objectives

Despite the considerable amount of attention that the adjective/adverb interface has received, the studies providing corpus evidence and a detailed semantic analysis of non-inherent adjectives and subject-related *-ly* adverbs are scarce. Hence, in order to shed some light on the description and classification of these adjectives and adverbs, following previous research, this thesis aims to:

- i) identify and quantify non-inherent adjectives that perform adverbial functions and display adverbial meaning in the British National Corpus and the Corpus of Contemporary American English (hereafter, BNC and COCA, respectively),
- ii) describe quantitatively and qualitatively the semantic features of non-inherent adjectives and the nouns they combine with. The analysis focuses on the meaning of non-inherent adjectives, the semantic properties of the nouns they combine with, the possible combinations, and the influence that meaning has on the ability of non-inherent adjectives to characterize the noun or not,
- iii) identify and quantify subject-relatedness outside color adjectives in the BNC, COCA and diachronic corpora such as the Dictionary of Old English Web Corpus and the Corpus of Middle English Prose and Verse (hereafter, DOE Web Corpus and CMEPV, respectively), and
- iv) describe quantitatively and qualitatively the semantic properties of subject-related *-ly* adverbs by elaborating on the semantic patterns where these adverbs are found, the semantic features of the elements in the clause, the semantic properties of the adverbs' adjectival bases, and the main register where the adverbs occur.

These aims will contribute to answer several questions that may arise when the units under study are considered. These questions are the following:

- i) What is the importance of the morphological mark in adjectives and adverbs?
- ii) Does the suffix *-ly* affect the meaning of adjectives and adverbs?
- iii) What is the best classification for presumed adjectives and adverbs?

In order to answer the previous questions, this thesis examines data from several diachronic and synchronic corpora and dictionaries.

1.3 Structure and contents

This dissertation consists of five chapters which are divided into different sections. Thus, this thesis is structured as follows: Chapter 1, the current chapter, is the introduction and presents a general description of the dissertation's topic, the aims and their justification and the structure. Chapter 2 reviews previous research on the general classification of word-classes, the classification of adjectives and adverbs, their interface, related topics to the classification of these grammatical categories, and research on non-inherent adjectives and subject-relatedness. Chapter 3 describes the method used for data collection and data analysis of the lexical units under study. Chapter 4 is divided into two main parts, one for the quantitative and qualitative analysis of non-inherent adjectives and subject-related *-ly* adverbs, and the other for the discussion of the categorial status of adjectives and adverbs as well as the value of *-ly* as an inflectional or derivational suffix. Chapter 5 draws conclusions about non-inherent adjectives and subject-related *-ly* adverbs, and elaborates on the limitations of the current thesis and further research.

1.4 Typographical conventions

The typographical conventions used in this thesis follow the guidelines provided in *The Generic Style Rules for Linguistics* (Haspelmath 2014). These typographical conventions are:

- i) capitalization is used for sentences, proper names, titles and headings of the numbered chapters and sections, and after the colon in titles,
- ii) italics are used for the citation of letters, words, phrases and sentences within the text or in numbered examples, book titles, journal titles, technical terms referred to metalinguistically, and emphasis of particular words that are not technical terms,

- iii) small caps are used to emphasize the importance of a term at its first use or definition. In this thesis, small caps are also used to refer to the semantic category of words,
- iv) boldface is used to emphasize particular aspects of examples,
- v) double quotations are used in a citation from another work and technical terms or expressions that are not adopted by the author. Single quotations are used for linguistic meanings, and
- vi) tables and figures, cross-references in the text and the bibliographical references also follow the formatting proposed by Haspelmath (2014).

2 THE CLASSIFICATION OF WORD-CLASSES. ADJECTIVES, ADVERBS AND THEIR INTERFACE

2.1 Introduction

The classification of words as word-classes has been the subject of debate, and the views in the classification of the lexical units of English are far from being unified. Some categorizations are based on morphological principles, while others give priority to functional (distributional) or semantic principles (for a review, cf. Michael 1970: 283). These classifications show that the limits between word-classes are not clearly established, since units that are considered to be part of one category based on their morphology can be included in a different category when the classification is based on syntactic principles.

Adjectives and adverbs are not out of this debate and the views on the classification of these word-classes are manifold. The most traditional view considers adjectives and adverbs as separate word-classes, but their formal, semantic and syntactic proximity makes their limits fuzzy (cf. Valera Hernández 1996). Thus, adjectives and adverbs share a number of correspondences (Feuillet 1991: 51-57), and they make the distinctions between units of these word-classes very difficult to establish. This is largely because adjectives may express adverbial meaning, and adverbs may express predicative meaning without changes in their morphology (see §2.4.3). The difficulties in the separation of these word-classes lead to the so-called categorial space between word-classes (Givón 1993: 51-53) or the adjective/adverb interface (cf. Hummel 2014). These terms refer to the space shared by word-classes where lexical units occur that cannot be clearly classified as members of one word-class or the other. However, some categorizations of adjectives and adverbs go beyond the limits of their interface and argue against a lexical category *adverb* (Giegerich 2012: 341).

The adjective/adverb interface, which is the subject of this thesis, can be divided into two parts. The first part includes adjectives that can perform adverbial functions without morphological changes. These have been defined as non-predicating adjectives (Levi 1978: 1) or belong in the group of the so-called non-inherent adjectives (Quirk, Greenbaum, Leech & Svartvik 1985: 435-436). The second part includes adverbs that perform predicative functions without morphological changes. In this part, two main concepts emerge, namely subject-orientation (Guimier 1991: 97 for French; Valera 1998: 263) and subject-relatedness (Díaz-Negrillo 2014: 459; Valera 2014: 88). The former refers to *-ly* adverbs that characterize the subject and express manner, while the latter involves *-ly* subject-oriented adverbs that only retain the predicative function typically associated with adjectives, i.e. do not convey an adverbial meaning.

This chapter includes the discussion of the previous concepts and related issues in the classification and evolution of adjectives and adverbs. Thus, the chapter is structured as follows: Section 2.2 provides an overview to the general classification of word-classes. Section 2.3 elaborates on the classification of word-classes in English. Section 2.4 deals with the diachronic evolution of adjectives and adverbs, their synchronic classification and markedness in the adjective/adverb interface. Finally, a summary of the chapter is provided in section 2.5.

2.2 General classification of word-classes

The classification of words has been the subject of much debate and various classifications have been put forward for the lexical units of English. The various classifications proposed have been established according to the distribution of lexical units into categories that depend on the distinction between parts of speech. Therefore, these classifications vary according to the accuracy of the categories and the criteria applied by every author, and according to whether categorizations are based on morphological, syntactic or semantic principles. Depending on the criteria applied, the number of classes and subclasses of words in every classification as well as the accuracy of the classification can increase and become more specific as the subtypes of these categories are considered (Jacobsson 1977: 38-43). Consequently, an accurate description of a language is only achieved when all the classes and subclasses in every category are described clearly (Allerton 1979: 134-135).

Many terms, especially *word-class*, *part of speech*, *syntactic category* and *lexical category* have been put forward to describe the system used to

classify words in English. The term *parts of speech* has been typically used in traditional grammars, but has subsequently been replaced by terms such as *form-classes* and *word-classes*, among others. However, there is a division between linguists who consider the terms *word-class*, *part of speech*, *syntactic category* and *lexical category* as equivalents, synonyms or near-synonyms (Haspelmath 2001: 16538) and those who claim that these terms are not identical (Bloomfield 1933: 196; Lyons 1977: 376). More recent studies provide a wider view of linguistic theories regarding these terms by analyzing the identification and description of these syntactic categories and focusing on the structure of sentences and the position of the elements in these sentences (cf. Rauh 2010).

2.3 Classifications of word-classes in English

The first classification of the parts of speech was by the Stoics and included the grammatical categories *noun*, *verb*, *article* and *conjunctive particle* (Michael 1970: 48; Hovdhaugen 1982: 41-48; Campbell 2002: 82-83). In this classification, common and proper nouns were sometimes classified as different parts of speech and the categories *article* and *conjunctive particle* included the categories *pronoun* and *preposition*, respectively. In addition to the aforementioned parts of speech, it has been argued that Antipater of Tarsus added another category that could probably be the category *adverb*. However, it has not been clearly specified whether this was such a category or not (Michael 1970: 48).

During this initial period in the classification of the parts of speech, the one by Dionysius Thrax can be considered the first formal classification of parts of speech that is very close to the classification used in Present-Day English (hereafter, PDE). After the Dionysian model, various classifications, like Varro's, have been put forward and the Dionysian categories have suffered several modifications, e.g. the separation of the interjection from the adverb by the Latin grammarians, or the Pristian classification of a larger number of parts of speech. These modifications have not changed much the original classification of eight parts of speech (Robin 1966: 17; Michael 1970: 51; Hovdhaugen 1982: 87; Campbell 2002: 83).

The Medieval system to classify the parts of speech followed mainly the classification by Pristian and Donatus (Campbell 2002: 84). Roger Bacon argued that there were two parts of speech in logic and eight in grammar (Bacon 1940: 232-239; Michael 1970: 51). The two parts of speech that were included in the logical classification were *noun* and *verb* and other parts of speech were

classified within these two main categories. Thus, while the pronoun and the adverb were classified within the category *noun*, the particle was included within the category *verb* and, in the logical classification, conjunction and preposition were excluded from the parts of speech because these were considered connectives. During this period, a group of authors known as the *Modistae*, following the classification by Pristian and Donatus, argued that '[...] in language the grammarian expressed understanding of the world and its contents through the modes of signifying' (Campbell 2002: 84). These modes of signifying were part of a grammatical system applied to Pristian and Donatus' parts of speech, where a distinction was made between essential and accidental modes (Breva-Claramonte 1983: 47; Bursill-Hall 1995: 132; Campbell 2002: 85). In this grammatical system, the parts of speech *noun* and *verb* were essential modes, but tense was accidental because its function could be signified by other elements such as temporal adverbs (Campbell 2002: 85).

In the Renaissance period, most of the systems to classify the parts of speech followed Pristian, but it was during this period that the noun was distinguished from the adjective so that the former was used to refer to a substance and the latter to a quality (Matthews 1967: 153; Michael 1970: 90). Despite the modifications, the classical model of eight parts of speech was still maintained during this period (Colombat 1988a: 53). Thus, the classical model was established in every period and, although sometimes considered vague (Gleason 1955: 133) and many times criticized (Fries 1952: 67; Magnusson 1954: 1; Huddleston 1984: 92), this was the model established for the classification of the parts of speech in English.

It is worth mentioning that, within the classification of the parts of speech, the description of the adverb was one of the most complex features of different grammars (Michael 1970: 101), as it contained ambiguous lexical units (cf. McCawley 1983: 263). Dionysius Thrax gave the first definition of *adverb* as a part of speech that amplifies or qualifies a verb, and provided twenty-eight types of adverbs. Pristian modified the types of adverbs provided by Dionysius by deleting seven of them and adding nine different types. Medieval and Renaissance grammarians gave similar lists, and a set of twenty types was provided for English adverbs, which remain one of the most complex grammatical categories in PDE due to their heterogeneity.

Since the revision above shows various views on the classifications of words, the following parts of this section will present three different classifications of words as word-classes. The first classification includes the view presented in traditional grammars, where categories are clearly separate

types (cf. Priestley 1769; Michael 1970). The second classification primes syntactic function as the main criterion to classify words and includes two main groups, known as *parts of speech* and *function words* (Fries 1952). The third classification does not make a distinction between word-classes and presents an alternative view where the classification of lexical units into word-classes is secondary, because some words can display meanings that are compatible with more than one grammatical category (Whorf, 1945; Farrell, 2001).

2.3.1 The traditional classification

Conventional grammars include eight word-classes, typically noun, pronoun, adjective, verb, adverb, preposition, conjunction, and interjection (cf. Michael 1970). This classification, like other systems of word-classes, can be divided into open and closed, and the main criteria used in the classification of words within these groups is their ability to participate in derivational or inflectional morphology, their form, their function, and their type of meaning i.e. whether lexical or grammatical.

Open word-classes comprise nouns, lexical verbs, adjectives and adverbs. These words can use word-formation processes and can therefore create new members of these word-classes. Members of these word-classes can interact with each other in derivational morphology leading to, for example, denominal adjectives, deverbal nouns, or denominal nouns. In inflectional morphology, members of these word-classes tend to be more liable to produce word-forms than members from other word-class, because they can use more grammatical categories, e.g. number in nouns, tense in verbs or degree in adjectives and adverbs. Members of open word-classes can modify one another and be modified by a wider range of words so that a noun can modify another noun, but can also be modified by an adjective, and an adjective can modify a noun and be modified by an adverb. Members of open word-classes have lexical meaning and can function as heads of their phrases.

Closed word-classes comprise pronouns, prepositions, conjunctions and interjections. These words have limited derivational potential and do not typically take new items in their categories. Members of this word-class take fewer grammatical categories than members of open word-classes, but they are not limited as in derivational morphology and some, like pronouns, can produce inflectional forms for categories like case and number. The interaction of members of this word-class is also lower than in members of open word-classes because they cannot interact with each other as open word-classes do. These lexical items are typically associated with grammatical meaning and most of

the members of these word-classes are more liable to function as structural markers instead of as heads of phrases.

2.3.2 Parts of speech and function words

The traditional classification does not seem to be completely satisfactory to categorize the lexical items of the English language. It has been stated that the definitions of conventional word-classes are not consistent because, for example, nouns are classified according to their lexical meaning and adjectives are classified according to their function (Fries 1952: 67). For this reason, and to provide a clearer classification of words, an alternative classification that differentiates between two groups, namely *parts of speech* and *function words*, has been put forward. The main criterion used in this classification is the distribution of words in the sentence.

The *parts of speech* include four groups of words, classified according to their distribution in the sentence, such that all the words that have the same distribution are considered to be part of the same part of speech. The method followed to classify words in one group or the other is the substitution of words for others that are the same kind of functioning unit (Fries 1952: 77). This classification does not take into account lexical meaning to include words in one group or the other, because the position and function of words in the sentence are the determining features for their classification. This assumption in which words that can take the same position in the sentence are part of the same part of speech is based on the specific structure of the English sentence, because the elements follow a fixed order and the word-class of the elements is typically determined by its position. The substitution process can be seen in examples like *the concert was good* where *concert* can be replaced by *food*, *coffee* or *taste* because all the words are compatible with the other words in the sentence. In the same way, the lexical unit *tax* in *the clerk remembered the tax* can be replaced by *food*, *coffee* or *family*. According to this criterion, there are four parts of speech (the first, second, third, and fourth position in the sentence) and five function words.

The group called *function words* includes a classification of all the items that are left outside the four classes of units in parts of speech. These lexical items are also classified according to the position in which they operate and the identification of every group of lexical items is possible because each group has been assigned a letter. Thus, Group A includes all the words that can occur in the same position as *the* and typically precede Class 1 words and, Group B includes words like *may* that always occur with Class 2 words. While

parts of speech could be considered content words which have lexical meaning, *function words* would have structural meaning and function as modifiers of the *parts of speech*. Although some of the units in this and in the traditional classification can be included in the latter, there are differences between both, e.g. if words in Class 4 and Group D are considered: While in the traditional classification lexical items within Class 4 and Group D are classified within the same word-class, specifically adverb, Fries (1952) classifies some lexical items as part of Class 4, because they can follow the other positions in the sentences, and as part of Group D, because they can precede Classes 3 and 4. Therefore, words like *generally* and *really* would be classified as *adverbs* in a traditional grammar, but they are classified as members of Class 4 and Group D, respectively, in the classification by Fries (1952).

2.3.3 Word-class underspecification

Unlike the previous classifications in which words are classified into groups and every word has to be included in a different group, the following classification does not assign a specific group to every word, because some lexical units have meanings that are compatible with more than one word-class. This approach deals with the idea that the meaning of a word does not depend on the word itself, but on the meaning of the word in a specific syntactic structure (Whorf 1945; Farrell 2001). The meaning of a clause depends on its constituents just as the meaning of a word depends on the rest of elements that combine with this word in the same syntactic structure. This view is intended to explain this interpretation of the so-called functional shift in English, i.e. the one that challenges the idea that some word-classes derive from others by conversion, a derivational process in which there are no formal changes in the words.

One of the first classifications in which words initially belonging to separate word-classes are classified as members of the same category is the one proposed by Jacobsson (1977), where prepositions, conjunctions and a group of adverbs that are homonymous with the two previous categories are included into a major category called *particle*. All the words in this group share the same morphology, but every word can perform three different functions. The common features that lead to the classification of these words as one and the same word-class are:

- i) limitations in inflectional and derivational morphology,
- ii) function as linking words and relational meaning, and

- iii) expression of similar meaning.

Just as the classification of prepositions, conjunctions, and adverbs, the classification of verbs and nouns has also been revised so that members of these categories that are homomorphs are not classified within a specific category (Farrell 2001). Therefore, these words are not inherently classified as nouns or verbs, and no derivational process can be associated with their formation, partly because it is not known if the origin of the word before the derivational process was the noun or the verb. The only way the word can be identified as a verb or a noun is by using the word in a context: When the word occurs with other words in a syntactic structure, it can be identified as a verb or a noun according to the meaning of the word in combination with the other elements in the sentence.

2.4. Adjectives and adverbs

2.4.1 The diachronic evolution of adjectives and adverbs

This section is devoted to briefly presenting the main features in the development of adjectives and adverbs in Old, Middle, and Early Modern English, hereafter referred to as OE, ME and EModE, respectively. The time framework proposed for the different periods of the English language may present slight differences from one grammar to another. These differences can be related, among other factors, to the time of transition from one period to another since change is not sudden and no exact boundaries can be established between periods. Thus, the periods hereby considered follow the chronology established by Barber, Beal & Shaw (2009). OE usually covers from the first Anglo-Saxon settlement (5th century), but significant evidence of language starts to appear around 700 AD, so that it can be considered the beginning of OE that lasts until 1100 AD. During OE, another subperiod, namely Late OE, can be identified and covers from 900 AD to 1100 AD. It was during the Late OE period that the written record started to be significantly available. The transition from OE to ME took place during the Norman Conquest and, even if the change in language was not immediate, the ME period can be dated from 1100 AD to 1500 AD. The Modern English period can be divided into two subperiods, namely EModE and Late ModE. EModE covers the period 1500-1650 AD and Late ModE covers from 1650/1700 AD to 1990. The end of the Late ModE period can be considered the beginning of PDE, which is the language used today.

One of the features that influenced the development of the English language by affecting its syntax and, to some extent, its morphology was the evolution of the language following two movements, namely synthetic and analytic (Baugh & Cable 2002: 52; Haspelmath & Michaelis 2017: 3). During the OE period, English was a synthetic language in which inflection was used to express the grammatical category of a lexical item and the syntactic relationships between words in a sentence (Baugh & Cable 2002: 49-50). Thus, there was an absence of fixed word order clearly established for this period. At the end of the OE period and during the ME period, English experienced a change and lost most of the inflected forms to become an analytic language. This change led to a modification in the syntactic structure of the language during the ME period because a fixed word order started to be established and became standard in the Early Modern English period.

2.4.1.1 The development of adjectives

In OE, several word-formation processes, namely affixation, compounding and conversion, were used to derived words and add new units to the lexicon (Kastovsky 1992). The analyses that explore the formation of adjectives in OE provide an inventory consisting of over thirty affixes with various meanings associated (Quirk & Wrenn 1955; Pilch 1970; Kastovsky 1992; Lass 1994). One of the most productive suffixes in the derivation of adjectives was the suffix *-lic*, which became very productive and lost most of its original meaning to become so common that numerous OE adjectives were attested in parallel derivation in (Uhler 1926: 62-63), even though a functional/semantic distinction can be observed in pairs such as *biter/biterlic* ‘painful/bitter’ (Guimier 1985; McIntosh 1991). Regarding inflectional morphology, adjectives shared the same inflectional model as nouns being inflected for every gender and for four cases in the singular and four in the plural with the addition of the instrumental case in the masculine and neuter (Wright & Wright 1914: 207; Baugh & Cable 2002: 53). One of the most prominent features of adjectives was the development of a double declension, specifically the strong and weak declension. In the strong declension, there were differences in the ending of light- and heavy-stemmed adjectives. A light-stemmed adjective like *hwīt* ‘white’ would add the ending *-re* in the genitive case when it is feminine and singular and *-ra* in the same case when it is plural (Fulk 2014: 35). The whole set of strong and weak declensions of OE adjectives is illustrated in Table 1 below (Baugh & Cable 2012: 52).

Table 1. Strong and weak declension of the adjective *gōd* ‘good’

	STRONG DECLENSION			WEAK DECLENSION		
	Masc.	Fem.	Neut.	Masc.	Fem.	Neut.
Sing. N.	<i>gōd</i>	<i>gōd</i>	<i>gōd</i>	<i>gōd-a</i>	<i>gōd-e</i>	<i>gōd-e</i>
G.	<i>gōd-es</i>	<i>gōd-re</i>	<i>gōd-es</i>	<i>gōd-an</i>	<i>gōd-an</i>	<i>gōd-an</i>
D.	<i>gōd-um</i>	<i>gōd-re</i>	<i>gōd-um</i>	<i>gōd-an</i>	<i>gōd-an</i>	<i>gōd-an</i>
A.	<i>gōd-ne</i>	<i>gōd-e</i>	<i>gōd</i>	<i>gōd-an</i>	<i>gōd-an</i>	<i>gōd-e</i>
I.	<i>gōd-e</i>		<i>gōd-e</i>			
Plur. N.	<i>gōd-e</i>	<i>gōd-a</i>	<i>gōd</i>		<i>gōd-an</i>	
G.	<i>gōd-ra</i>	<i>gōd-ra</i>	<i>gōd-ra</i>		<i>gōd-ena/-ra</i>	
D.	<i>gōd-um</i>	<i>gōd-um</i>	<i>gōd-um</i>			
A.	<i>gōd-e</i>	<i>gōd-a</i>	<i>gōd</i>		<i>gōd-an</i>	

Syntactically, the distribution of adjectives was before and after the head noun they modified. Thus, OE adjectives occurred in attributive position immediately preceding the noun, as in *gōd mann* ‘good man’, between the noun and the article when there was an article, as in *se (or þes) mann* ‘the (or this) man’ or after the noun, as in *fram pæm mūpan ūtewardum* ‘from the outward (part of) the mouth’ (Quirk & Wrenn 1955: 87-88). The syntax of OE adjectives influenced their morphology so that the type of declension (weak or strong) used for the adjective was determined by the syntactic structure where the adjective occurred (Hogg & Fulk 2011: 146). Attributive adjectives were declined by using the weak declension when preceded by a demonstrative or a possessive and by using the strong declension when adjectives were the only element before the noun (Wright & Wright 1914: 206; Mitchell 1985: 51). In addition to attributive position, OE adjectives could also occur in predicative position and in apposition (Mitchell 1985: 49). In predicative position the declension used was the strong one for the positive and superlative and no inflection for the singular while the ending *-e* was added to the plural. In apposition, the declension followed the same rule as in attributive position, being declined weak with a demonstrative and strong without a demonstrative (Mitchell 1985: 62-63). Therefore, the strong declension would be used in the example *gōd mann* ‘good man’ where *man* is preceded only by the adjective, while the weak declension would be used in the example *sē gōda mann* ‘the good man’ where the adjective co-occurs with an article (Baugh & Cable 2002: 53).

Regarding syntax, it has also been argued that the position of OE adjectives was not free, but the variation in their distribution was conditioned by semantic, syntactic and pragmatic factors (Fischer 2000, 2001, 2004). This

variation is related to the iconic principle in which the interpretation of a noun phrase is influenced by the order of its elements (cf. Bolinger 1972, cited in Fischer 2004: 3). Thus, when the adjective precedes the noun, the adjective modifies the perception of the noun and both elements constitute one information unit, but when the adjective follows the noun, the noun is a unit of information that is processed first and the adjective gives additional information about the noun (Fischer 2004: 3). This difference in position is related to the information status of the noun phrase; therefore, new information was expressed by using a strong adjective in pre- or postnominal position, but given information was expressed by using a weak adjective in prenominal position. When the determiner system was introduced, this situation was affected and, with some exceptions, new information was expressed by postnominal strong adjectives in phrases without a demonstrative or possessive. In the case of given information, it was expressed by prenominal weak adjectives in combination with a definite determiner (Fischer 2004: 4-6).

The evolution of adjectives during ME had significant consequences mainly for the use of derivational and inflectional forms. Adjectives were derived mainly from nouns by using derivational suffixes (Jespersen 1942; Fisiak 1965; Marchand 1969), but the number of suffixes used during this period decreased (Baugh & Cable 2002: 169). There was also a reduction of the inflectional system that implied the loss of the grammatical categories gender, number and case. This reduction and the phonological change by which the final inflectional and derivational *-e* was lost led to an increase in the use of the suffix *-lic*. Besides, the nominative forms in both singular and plural were extended to the rest of cases in the weak and the strong declension eliminating the distinction between the weak and strong declension (Wełna 2017: 54). As a result of this change, there was no distinction between singular and plural in the weak declension and every form ended in *-e* so that, for example, the adjective *blind*, *blinda* and *blindan*, became *blinde* (Baugh & Cable 2002: 156). The same phenomenon was experienced by adjectives in the strong declension whose singular ending was *-e*. Thus, the inflectional system of adjectives was reduced to the following forms (Baugh & Cable 2002: 156; Fulk 2012: 61):

- i) a singular ending without the final *-e* for the strong declension,
- ii) a plural ending in *-e* for the strong declension, and
- iii) plural and singular endings in *-e* for the weak declension.

The final result of the reduction of the inflectional system of adjectives can be observed in Table 2 below.

Table 2. Declension of adjectives after the reduction of the inflectional system

	STRONG DECLENSION	WEAK DECLENSION
Singular	<i>gōd</i>	<i>gōd-e</i>
Plural	<i>gōd-e</i>	<i>gōd-e</i>

The changes that affected the inflectional system of adjectives had some consequences outside morphology, and the syntax of ME adjectives also experienced changes. Adjectives that modified nouns could occur mainly in prenominal position, and other positions as postnominal were restricted to some types of adjectival modification such as structures with two or more adjectives (Mossé 1952: 123; Fischer 2006; Volná & Šaldová 2022). However, during this period postponed adjective position started to decrease due to the loss of the strong and weak declension and other factors, such as the increase in the emerging determiner system and the change of English into an analytic language which led to the beginning of a fixed word order in the syntax of ME (Fischer 2006: 253). As described for OE, the position of adjectives was not free and there were several factors that influenced the position of these lexical units. According to Fischer (2006: 255), the use of a postnominal adjective relied on:

- i) the morphology of the adjective,
- ii) the functional role of the adjective phrase in the information structure of the noun phrase, and
- iii) the number of adjectives in the noun phrase.

In EModE, adjectives were created mainly by the use of affixes, but there was another process, namely morphological Anglicization, that was used to add new elements to the English lexicon (Barber 1976; Görlach 1991; Nevalainen 1999: 369). In order to create adjectives by this process, some lexical items experienced the following changes (Barber 1997: 234; Nevalainen 1999: 400; Cowie 2017: 62):

- i) deletion of inflectional endings: Some inflectional endings were deleted from the loanwords as, for instance, the Latin words *terrificus* ‘terrific’ and *contentus* ‘content’, which lost the final *-us* to create *terrific* and *content*, and
- ii) addition of suffixes: The process often consisted in combining an etymologically foreign suffix with native bases. For this to happen, the suffix first came into English as part of borrowed adjectives (from Old

French or Latin) in a measure sufficient for the suffix to be cognitively abstracted as such. Once this happened, the etymologically foreign suffix was ready to be combined with native bases as well. In adjectives, the process can be illustrated by the suffix *-able*. This suffix came to English as part adjectival borrowings from French and Latin, as in *changeable* (from French *changeable*) or *passionable* (from Latin *passionabilis*), and in borrowings from both French and Latin, as in *profitable* (from Latin *profitabilis* and French *profitable/profitable*). Subsequently, the use of the suffix was extended to form hybrid adjectives with Germanic bases such as *doable* or *takeable*, and, later in the EModE period, the suffix became so extended that it started to combine with native bases, as in *breakable* and *wearable*¹.

Regarding inflectional morphology, EModE adjectives were inflected to express the comparative and the superlative degree and this was a feature shared with adverbs (see §2.4.1.3).

2.4.1.2 The development of adverbs

OE adverbs have not received as much attention as adjectives, so several descriptive grammars provide only a brief discussion of adverbs (Nicolai 1907; Mitchell 1985; Campbell 1987; Lass 1994). For OE adverbs, Nicolai's (1907) classification is based on the category of the base on which the adverbs are created and the morphological process from which the derivative comes. The classification focuses on non-basic adverbs within the sub-class of deadjectival adverbs, and provides the following patterns:

- i) adverbs derived from adjectives by *-e* suffixation: *bealde* 'boldly',
- ii) adverbs derived from adjectives by means of *-līce* suffixation: *cwiculi:ce* 'vigorously',
- iii) adverbs derived from previously derived adjectives: *wilsumli:ce* 'desiderably',
- iv) adverbs ending in *-a*: *tela* 'well',
- v) adverbs that coincide in form with the adjective from which they derive: *heah* 'high',
- vi) adverbs from the genitive singular of the adjective: *ealles* 'all',
- vii) adverbs from the dative plural of the adjective: *middum* 'in the middle',

¹ According to the OED, the extension of the suffix could be caused by the loan of numerous French bases of loan adjectives containing the suffix and, the association of the suffix with the adjective *able*. The suffix was later extended to combine with nominal bases, as in *carriageable*.

- viii) adverbs from the accusative neuter of the adjective: *mæst* ‘most’,
- ix) adverbs adposition plus inflected noun: *tōgædere* ‘together’, and
- x) adverbs from the comparative and superlative of the adjective: *ārlicero* ‘earlier’ / *oftost* ‘most often’.

Even if this classification is a valuable contribution, it has been argued that it does not provide basic methodological distinctions that can apply to contemporary linguistics, such as the differences between inflection and derivation, the lack of a clear separation between compounding and derivation, or the division between words and phrases (Maíz-Villalta 2010: 38).

In response to the need for a more exhaustive analysis of the creation of OE adverbs and, based on the analysis of adverbs in the lexical database of OE *Nerthus*, three derivational processes (conversion, compounding, and affixation) have been reported to be used in the creation of OE adverbs (Maíz-Villalta 2010: 39-43). The most productive word-formation process in the creation of OE adverbs is suffixation and the most common pattern of adverb suffixation is the use of the suffixes *-lice* and *-e* (Maíz-Villalta 2010: 41)². This argument is in line with previous works on the formation of OE adverbs in which these suffixes are considered the suffixes used to derive deadjectival adverbs (Uhler 1926: 1-2; Mustanoja 1960: 34; Lass 1994: 207-208). An important factor to consider regarding the use of these suffixes is that the frequent use of *-e* to derive adverbs from *-lic* adjectives led to the creation of doublets so that it was possible to find doublets of derived *-e* adverbs, such as *hearde-heardlice* ‘hardly’ and *beorhte-beorhtlice* ‘brightly’. Thus, due to the familiar and increasing use of *-lice*, it started to be considered the way of forming adverbs (Mustanoja 1960: 314; Strang 1970: 272).

Syntactically, adverbs occurred in structures where they modified verbs, adjectives, adverbs, numerals, nouns, pronouns, prepositional phrases, conjunctions or sentences (Mitchell 1985: 468). Most of the adverbs were more liable to occur preceding the elements they modified, but some of these units could vary their distribution and occur in postverbal position so that it was possible to find an adverb in preverbal position as in *hī sendon þā sōna* ‘they then immediately sent’ and in postverbal position as in *wē winnað rihtlice* ‘we struggle righteously’ (Quirk & Wrenn 1955: 90-92).

² Of a total of 1.050 adverbs, 122 adverbs were derived by conversion, 865 adverbs were derived by affixation and 63 adverbs were derived by compounding. Of the 865 adverbs derived by affixation, 666 adverbs were derived by suffixation and 525 took *-lice* and *-e* suffixation

During the early ME period, the process of levelling period caused the phonological (and, later, morphological) loss of unstressed syllables of words (Pyles & Algeo 1982: 152-153; Baugh & Cable 2002: 147). As a consequence of this process, the final *-e* used as a suffix to derive adverbs disappeared and adverbs derived with this suffix became undistinguishable from their adjectival bases. This caused certain confusion and the need for an adverbial marker to distinguish adjectives and adverbs (Strang 1970: 273). Therefore, the suffix – *lice* (from OE *-lice*), which became *-lic* as a result of the levelling process, was used as an adverbial suffix (Uhler 1926: 64; Mustanoja 1960: 314). This suffix was in later ME phonologically modified to acquire the form of *-li* (Wright & Wright 1914: 290, Donner 1991: 1; Nevalainen 1997: 155). This suffix was established as the main suffix to derive deadjectival adverbs and became the origin of the adverbial suffix *-ly* in PDE (Donner 1991: 1; Weřna 2017: 56).

In EModE, although there were several adverbial suffixes (e.g. *-ly*, *-wise*, *-way*), *-ly* was the main and most productive suffix to derive adverbs from adjectives (Koziol 1972: 272-273; Nevalainen 1999: 405-406). Like during previous periods of the language, where adverbs could have doublets and present two forms, EModE adverbs had variant forms, with and without a suffix so that, *smooth* and *smoothly* were regular adverbial forms (Nurmi 2017: 23).

2.4.1.3 Common features of adjectives and adverbs in their diachronic development

In OE, adjectives and adverbs expressed the comparative and the superlative degree by suffixation. Adjectives usually took the ending *-ra* for comparatives and the ending *-ost*, also spelt as *-est*, for superlatives, but adjectives derived from adverbs of place and time could take different suffixes (Wright & Wright 1914: 218-221; Quirk & Wrenn 1955: 34-36; Mitchell 1985: 81-83; Fulk 2014: 94-95), as illustrated below:

Table 3. The comparative and the superlative degree of OE adjectives

	COMPARATIVE	SUPERLATIVE
<i>eald</i> ‘old’	<i>ieldra</i>	<i>ieldest</i>
<i>sceort</i> ‘short’	<i>scyrtra</i>	<i>scyrtest</i>
<i>inne</i> ‘inside’	<i>innerra</i>	<i>innemest</i>

OE adverbs in *-e* usually dropped the final *-e* and took *-or* for the comparative and *-ost* for the superlative, while a few adverbs had front mutation (Wright

& Wright 1914: 291; Quirk & Wrenn 1955: 34-36; Fernández 1982: 247; Fulk 2014: 95-96), as illustrated below.

Table 4. The comparative and the superlative degree of OE adverbs

	COMPARATIVE	SUPERLATIVE
<i>georne</i> ‘gladly’	<i>geornor</i>	<i>geornost</i>
<i>freondlice</i> ‘amiably’	<i>freondlicor</i>	<i>freondlicost</i>
<i>lange</i> ‘long’	<i>leng</i>	<i>longest</i>

In OE, a group of adjectives used suppletive forms to express the comparative and the superlative degree. These adjectives were *gōd* ‘good’ with the comparative *betera/bet(t)era* and the superlative *betst/best*, and *yfel* ‘bad’ with the comparative *wiersa* and the superlative *wierrest/wyrst*. During this period, some forms of adjectives and adverbs were the same when the positive form of some comparatives and superlative was an adverb used to derive the adjective (Fernández 1982: 247). Thus, some adjectival forms only existed in the comparative and superlative degree because its positive form was an adverb (Quirk & Wrenn 1955: 35).

The suffixes used to express the comparative and the superlative degree during the OE period suffered some changes during the ME period. The ME suffixes used for the comparative and the superlative of adjectives were *-re* and *-est*, respectively (Fernández 1982; Fulk 2012: 61). The suffix *-re* used for the comparative degree changed by adding an *-e* at the beginning of the suffix, becoming *-ere*, and losing the final *-e*, the end result being *-er*. This expression of comparison was extended to adverbs (Fulk 2012: 61). It was also during this period and parallel to the use of the suffixes that the existing periphrastic structures *more* and *most* became consolidated for the expression of the comparative and the superlative degree, respectively. These periphrastic structures were initially used for adjectives of one or two syllables (Mustanoja 1960: 279; Fulk 2012: 62), but, with the increasing use of the structure and the development of ME, these structures became specialized for adjectives with more than two syllables (Fernández 1982: 317).

In EModE, adjectives expressed the comparative and the superlative degree using the suffixes *-er* and *-est* respectively, and periphrastic structures were used when the adjective was long (Nevalainen 2006: 98). It was also possible to use the suffix and the periphrastic structure with the same adjective so that *sweeter* and *more sweet* could be equally used (Barber 1997: 136-147; Lass 1999: 156-158). During this period, the use of periphrastic structures specially to express the comparative degree was more common than in PDE

even with disyllabic adjectives (Kytö & Romaine 1997: 337) and the use of double forms as in *the most hyghest* ‘the most highest’ was also possible (Kytö & Romaine 1997: 337; Nevalainen 2006: 99). Regarding the use of comparatives and superlatives in specific registers, while periphrastic structures were preferred in literary texts, inflectional morphology was preferred in spoken language even for long adjectives (Görlach 1991: 83-84; Nevalainen 2006: 98). Adverbs used the same inflectional suffixes and periphrastic structures as adjectives for the expression of comparison, but the suffixless form of adverbs was sometimes preferred to express the comparative and the superlative degree, so that suffixless adverbs such as *slow* made the comparative *slower* and the superlative *slowest* (Nevalainen 1999: 430). The choice of one form or the other depended on linguistic factors, but register variations could also influence the use of one form or the other (Nevalainen 2006: 101).

Adjectives and adverbs thus shared some major features during OE and ME. OE adjectives and adverbs could be differentiated because the use of different inflectional morphemes made clear the category of every lexical item and adjectives and adverbs were syntactically different as they occurred near the element they modified. However, the morphology of OE adjectives whenever they were inflected for the instrumental case to express masculine and neuter gender was the same as the morphology of adverbs, since both categories ended in *-e*. During this period, the differentiation of adjectives and adverbs was possible because adjectives could take *i*-umlaut, while adverbs could not (Fernández 1982: 247). However, it has also been argued that there was an overlap in the function of OE adjectives and adverbs when these words had similar forms (Uhler 1926: 9; Mitchell 1985: 471-472). Thus, when this similarity in the form of an adjective and an adverb appeared, it was difficult to identify the word-class of the unit used and some writers used one form when the other would be preferred so that in OE an adjective could be found where an adverb would be preferred in PDE (Mitchell 1985: 473). During the ME period, specifically when the inflectional system was reduced and the final *-e* used to derive adverbs disappeared, the formal distinction of adjectives and adverbs became challenging, since most adverbs were morphologically identical to adjectives. In addition to these similarities, the analysis of the morphosyntactic arrangements in the category *adjective* from OE to ME points out that postposed adjectives, small clauses and adverbs could often appear in similar positions so that there was an increasing tendency for *-ly* adverbs to take the position of adjectives when the *-ly* adverb occurred in postnominal and preverbal position (Fischer 2004: 9) and postnominal adjectives ending in *-ly*

could function as adverbs (Fischer 2006: 278-279). It has also been noticed that, during the EModE period, preposed adjectives, such as *exceeding sorry* and *extreme ill*, could act as a degree adjective and perform the function of intensifier (Kirchner 1970: 233; Bolinger 1972: 24; Peters & Swan 1983: 74-75; Paradis 2000: 235).

2.4.2 Synchronic classifications of adjectives and adverbs

2.4.2.1 General remarks in the classification of adjectives and adverbs

As the general classification of words, the classification of adjectives and adverbs has been the subject of debate. Their morphological and semantic proximity has been the reason for some grammars to opt for a classification different from that in conventional grammars, where adjectives and adverbs are two categories. The specific features for the classification of these word-classes are the following (Bauer 1983; Quirk, Greenbaum, Leech & Svartvik 1985; Bauer & Huddleston 2002; Carstairs-McCarthy 2002):

- i) Adjective: It is a word-class composed of lexical items that are derived from other word-classes and other members that do not have an identifying form, such as *good*, *young*, or *hot*. Members of this grammatical category interact in derivational processes with other word-classes, such as nouns and verbs, and can also undergo inflectional processes. Regarding derivational morphology, adjectives can be created by affixation with a wide variety of suffixes e.g. *-able*, *-ful*, *-ish*, *-ous*, and *-ic*, but these are also involved in derivational processes as conversion and compounding. In relation to inflectional morphology, adjectives are inflected for the expression of the comparative and the superlative degree. Adjectives can express superiority by suffixation with *-er* for the comparative and *-est* for the superlative degree when the adjective is mono- or disyllabic, and these can express superiority and inferiority by the use of periphrastic structures using *less*, *least*, *more*, and *most* to premodify the adjective when adjectives have three syllables or more.

Syntactically, adjectives head phrases that can occur in three positions, namely attributive, predicative, and postpositive. In attributive position, adjectives function as premodifiers of a noun and occur between the determiner, if there is one, and the noun. In predicative position, adjectives function as subject complements when they occur immediately after the verb phrase, and as object complements when they occur after a noun phrase that performs the

syntactic function object. Postpositive position is relatively less frequent and is taken by adjective phrases that occur immediately after the noun they modify and under certain specific conditions.

Semantically, adjectives are associated with the expression of categories, states or qualities of nominal elements that can be the subject of the sentence where an adjective occurs or a nominal element in a different clause constituent. Adjectives can be classified according to several criteria, e.g. STATIVE/DYNAMIC, GRADABLE/NON-GRADABLE and INHERENT/NON-INHERENT. The category *adjective* is typically considered a stative word-class, but adjectives that are susceptible to subjective measures are liable to be dynamic. Most adjectives are also described as gradable since they can be modified by intensifiers, but some adjectives, such as some denominal adjectives and adjectives denoting provenance, are typically described as non-gradable. Inherent adjectives are those that directly characterize the noun, while non-inherent adjectives do not characterize the noun, but an extension of the sense of the noun they occur with.

- ii) Adverb: this word-class is considered to be a more heterogenous word-class that is composed of simple adverbs such as *just, only, soon, here, or thus*, and adverbs that are derived from other words classes or created by compounding, such as *upwards, clockwise, somehow, or carefully*. As with adjectives, adverbs undergo derivational and inflectional processes. Regarding the derivation of adverbs, members of this grammatical category are derived mainly from nouns and adjectives by suffixation with *-wise, -ward, and -ly*, but can also be created by compounding and conversion. Adverbs derived by suffixation are reported to be the biggest group of adverbs, the suffix *-ly* being the most productive adverbial suffix, specifically used to derive deadjectival adverbs. With regards to inflectional morphology, adverbs are inflected to express the comparative and the superlative degree and use the same inflectional suffixes and periphrastic structures as adjectives to express superiority and inferiority.

The syntax of adverbs is not limited to specific positions, since one of the main syntactic properties of this word-class is that its lexical items may be highly mobile. Some members of this category can appear in several positions in the sentence depending on their semantic type so that adverbs that modify verbs or adjectives are more integrated in the clause than other adverbs, like the disjuncts that express an evaluation of what is said in the sentence. Adverbs can also take various positions within the same clause constituents: They can appear in

medial position in the verb phrase when they express intensification, but can also appear in pre- or postverbal position when they express manner.

Semantically, adverbs can express various meanings as this word-class can modify other word-classes, mainly adjectives, verbs, and other adverbs, and may also premodify phrases (e.g. prepositional or quantifier phrases). Thus, adverbs can express intensification or emphasis, and also circumstantial meaning. They can be classified according to various semantic types such as SPACE or TIME LOCATION, PROCESS, RESPECT, CONTINGENCY, MANNER, MODALITY, and DEGREE.

Not all the members of the categories adjective and adverb are central members of these word-classes (Quirk, Greenbaum, Leech & Svartvik 1985: 403-404). Central members are prototypical members of the category (they display all the functions associated with the category), while peripheral members behave in ways that are not considered prototypical of the category they belong to. Therefore, the existence of peripheral members affects the traditional classification of adjectives and adverbs.

A major issue emerges in this part of the description of these word-classes as separate categories, due to the ability of some lexical units from one word-class to perform functions associated with the other word-class. Adjectives in constructions such as *complete fool* or *total disarray* (Huddleston & Pullum 2002: 555) can perform the function of intensifier, which is typically performed by adverbs (*complete* and *total* do not characterize the noun they precede: they express degree). Adjectives can also express intensification by *intensificatory repetition*, i.e. by repeating the adjective that precedes the noun in attributive position, because the first adjective performs the same function as the adverb *very*. This kind of intensification is illustrated in structures such as *in numerous, numerous instances, deep blue* or *a powerful, powerful weapon* in which the first adjective takes the place of the adverb *very* and intensifies the meaning of the second adjective, but it does not modify the noun as it would be expected from a prototypical adjective (Huddleston & Pullum 2002: 561).

The overlap of adjectives and adverbs is not limited to those adjectives that perform adverbial functions at phrase level: It also happens at sentence level. This is the case of predicative adjuncts (Allerton 1982: 85-86; Huddleston & Pullum 2002: 529), i.e. adjectives in sentence-initial position where an adverb would be expected as in *Furious, he stormed out of the room*, where *furious* is detached from the sentence but can refer to the state of the person when leaving the room and functions partly as predicative complements do.

Some problems in the classification of adjectives also arise when their position is considered: When the adjective moves from attributive to predicative position or from prenominal to postnominal position, the meaning of the sentence changes (Bolinger 1967: 2-4). This change in the meaning of the sentence can be seen from *the stars visible were Aldebaran and Sirius* to *the visible stars were Aldebaran and Sirius*, since the former refers to a star that is visible during a specific period of time, while the latter refers to stars that are inherently visible.

It has also been argued that some attributive adjectives that can be recovered from adverbial predications perform a kind of hegemony in modification and tend to develop the adverbial function taking the place of adverbs, i.e. the use of an attributive adjective is preferred over the use of an adverb that modifies the verb phrase. Thus, instead of the sentence *A sailor strolled by occasionally*, it is more frequent to find sentences like *An occasional sailor strolled by*, where the use of an attributive adjective replaces the use of an adverb (Bolinger 1967: 5-6). Thus, adjectives that refer to time or space location, a typical meaning related to adverbs, are restricted to attributive position. However, not all the words with this meaning can be used in attributive position because some adjectives or, as indicated by Bolinger (1967: 11), “adjectives (or adverbs doubling as adjectives or vice versa)”, denoting time or place location can only occur in attributive position with some nouns. Therefore, the adjective *nearby* can be used attributively when the noun that co-occurs with *nearby* is permanent or stable in time, so *the nearby building* is possible, but *the nearby man* is not, because the man can move the next moment (but the building will remain in the same place).

Adjectives can also occur in supplementive clauses where adjectives function as head of an adjective phrase that realizes the clause (Quirk, Greenbaum, Leech & Svartvik 1985: 424). The supplementive clause, like adverbials, is relatively mobile within the sentence, but usually precedes or follows the subject of the superordinate clause that the supplementive adjective clause modifies. The adjective in a supplementive clause, it is argued, can be replaced by an adverb under the appropriate conditions and with little change in the meaning. Thus, the supplementive adjective clause *Rather nervous, the man opened the letter* can be replaced by *Nervously, the man opened the letter* (Quirk, Greenbaum, Leech & Svartvik 1985: 425), i.e. a clause where the adverb can characterize the subject. The various functions of adjectives that overlap with adverbial functions evidence how adjectives and adverbs are not

that far away from each other, and share important properties that make their distinction far from unproblematic within conventional grammars.

2.4.2.2 The semantics of adjectives and their ability to derive adverbs

Adverbs formed by *-ly* suffixation derive from adjectives, but several constraints have been pointed out in the derivation of deadjectival adverbs by this type of suffixation. Thus, it has been argued that a great variety of English adjectives, if not the majority of them, do not derive adverbs and that stative adjectives are not liable to derive adverbs because a dynamic interpretation of the resulting *-ly* adverb is not possible (Kjellmer 1984: 2-8).

The ability of adjectives to derive *-ly* adverbs relies mainly on the distinction STATIVE/DYNAMIC (Lakoff 1966). This distinction has been applied to two lexical categories in English, namely adjectives and verbs. They share a number of characteristics by which their members can be divided into two semantic types according to their ability to occur in various syntactic environments, or not (Lakoff 1966: 3-12; Quirk, Greenbaum, Leech & Svartvik 1985: 434). Therefore, the classification of adjectives and adverbs as stative or dynamic depends on the response of the members of these categories to a number of tests. Stative (senses of) adjectives and verbs are not liable to occur in the test, while dynamic (senses of) adjectives and verbs can occur in all the syntactic environments proposed, as illustrated by Lakoff's (1966) examples of this test:

- i) The occurrence in command imperatives:
 - (1) Slice the salami!
 - (2) *Know the answer!
 - (3) Be careful!
 - (4) *Be tall!

- ii) The ability to take the progressive mood:
 - (5) He is slicing the salami
 - (6) *He is knowing the answer
 - (7) He is being careful
 - (8) *He is being tall

- iii) The ability to take the pro-form *do something*:
 - (9) What I did was slice the salami
 - (10) *What Harry did was know the answer
 - (11) What he did to please me was to be careful

- (12) *What he did to please me was to be tall
- iv) The ability to function as complements of verbs such as *persuade* and *remind*:
- (13) I persuaded John to listen to the music
- (14) *I persuaded John to know the answer
- (15) I reminded John to be careful
- (16) *I reminded John to be tall
- v) The co-occurrence with manner adverbials restricted to human subjects:
- (17) John sliced the salami enthusiastically
- (18) The machine sliced the salami enthusiastically
- (19) *John doubted that fact enthusiastically
- (20) *John knew the answer reluctantly
- vi) The co-occurrence with the adverbial *for someone's sake*:
- (21) I learned that fact for my teacher's sake
- (22) *I know that fact for my teacher's sake

There is a semantic feature, specifically [ACTIVITY], that emerges from the distinction STATIVE/DYNAMIC (Lakoff 1966: 12). A considerable number of cases show that dynamic adjectives and verbs are marked with the feature [+ACTIVITY], whilst stative adjectives and verbs share the feature [-ACTIVITY].

The hypothesis of the occurrence of the semantic feature [+ACTIVITY] has been considered ambiguous, because it could only suggest physical activity or process and may exclude a mental process or activity (Ljung 1975: 132). Based on this, it has been proposed that the semantic feature [+ACTIVITY] may be replaced by [+CONTROL] (Ljung 1975: 132), thus situations or actions that the subject has the ability to control are [+DYNAMIC] and those that cannot be controlled by the subject are [+STATIVE]. This argument can be related to two notions, namely intentionality/volition (Rogers 1971; Dowty 1972), that are inherently present in [CONTROL]. However, [CONTROL] has to be considered “a property of the entire predicate part of a sentence” (Ljung 1975: 134) instead of a property of the word itself. Thus, although adjectives and verbs can have a general meaning that can be classified as [STATIVE] and imply a lack of control, they may have the ability to take senses that can be classified as [DYNAMIC] and, consequently, as [+CONTROL] in a specific context or with the suitable syntactic conditions (Ljung 1975: 136). It can be seen in adjectives like *foolish*

in (23) and (24), because the meaning of the same adjective differs from one sentence to another. The adjective lacks control in the first example and characterizes the subject, but it has the semantic property [+CONTROL] in the second example and refers to the way the subject behaves:

(23) Mary is foolish and she always will be.

(24) Peter was spending all his money on drinks so I told him not to be so foolish.

In addition to the semantic feature [CONTROL], there are two properties that have been proposed in the distinction STATIVE/DYNAMIC. These are the subject's agency, a property closely related to the notion of [CONTROL], and the [TRANSITORINESS] of the action, i.e. whether the action expressed by the verb is temporary or permanent (Dowty 1975: 380). The former property, namely [AGENCY], includes adjectives and verbs that can semantically involve an agentive participant when these indicate a state, feature or action that requires the volitional participation of the syntactic subject (Dowty 1972: 380-384). The latter property, [TRANSITORINESS], is mainly concerned with the distinction temporary/permanent. Thus, adjectives that refer to a permanent state or property of the subject are stative, and those that refer to properties that are temporary are dynamic (Kjellmer 1984: 8).

Dynamicity has also been analyzed in terms of the time schemata of various types of verbs (Vendler 1957). Thus, verbs are classified as activity or accomplishment terms, and achievement or state terms according to their ability to occur in the progressive aspect. Activity terms refer to actions that are in progress and do not have a specific duration, such as *pushing* in *pushing a cart*; accomplishment terms also refer to actions that are in progress, but these actions do have a specific duration, as *drawing* in *drawing a circle* (Vendler 1957: 145). By contrast, achievement terms refer to actions that occur at a certain moment, as *reach* in *reach the top*, but state terms refer to actions that last a short or long period of time, as *believe* in *believe in the stork*. Therefore, only activity terms can occur in the progressive aspect and can be classified as dynamic verbs, while achievement terms lack this ability and can be considered stative verbs. Furthermore, some verbs cannot be used in a progressive aspect to express that an action is underway, e.g. *knowing* or *recognizing*. Therefore, accomplishments imply a definite period of time and refer to dynamic verbs, while achievements and states involve stative verbs as they include definite time instants as well as indefinite and non-unique senses, respectively.

Time reference has also been studied in the distinction between stage-level and individual-level predicates (Carlson 1977; Larson 1999). This distinction has been used in many constructions (see Kratzer 1995; Jäger 1999; Morzycki 2015), but it can also be related to the STATIVE/DYNAMIC distinction. Adjectives included in the stage-level predicates refer to the state of the person during a specific period of time, while adjectives in the individual-level predicates characterize the subject in general and not only for a specific period of time. Therefore, adjectives such as *drunk* or *hungry* are stage-level predicates, because the states denoted have a specific duration, but adjectives such as *brown* or *Italian* are individual-level predicates, because these properties are not likely to change. While the former type of adjectives can be classified as [TEMPORAL] and, therefore, [DYNAMIC], the latter would be considered as [PERMANENT] and [STATIVE].

It has also been considered that interaction between the state- and individual-level with stativity is possible depending on the adjective that is used. Hence, stage-level predicate adjectives such as *happy* can appear in stative constructions such as *John is happy* and in eventive constructions such as *John is being happy*. However, the adjective *intelligent*, which is classified as an individual-level predicate can only be [STATIVE] as in *John is intelligent*, not eventive as in **John is being intelligent* (Husband 2006: 2). The idea presented in these examples can be related to the ability of stative and dynamic adjectives to occur in the progressive mood. Stative adjectives cannot be used in the progressive mood, while dynamic adjectives can co-occur with verb phrases marked for the progressive mood (Lakoff 1966: 6-7).

Syntactic constraints can also affect the use of manner adverbs when the verb in the sentence is a stative verb (Katz 2008: 222). There is only a small group of these adverbs that can occur in state sentences, i.e. sentences containing a stative verb. These are adverbs like *soundly* in *Peter sleeps soundly*, *well* in *Peter knew French well* and *quietly* in *John lies quietly on the floor*. However, these combinations are usually considered idiomatic or collocational, and many manner adverbs that appear in combination with stative verbs have a degree modifying interpretation (Katz 2008: 234-247).

2.4.2.3 The adjective/adverb interface

Previous parts of this chapter (see section 2.4.2.1) mention difficulties in the classification of adjectives and adverbs, especially as regards the distinction of some units as members of one class or the other. Some categories, specifically nouns, verbs, and adjectives, can be classified in a logical semantic dimension

because their meanings can be differentiated, but the category *adverb* consists in a variety of units that mix morphologically, syntactically, and semantically in the criteria used to classify words (Givón 1984: 51). Even if adjectives are less problematic than adverbs, some members of the former category can overlap with members of the categories *noun* and *verb* (Givón 1984: 52). These unclear limits show most apparently in the area known as the *categorical space* between word-classes (Givón 2001: 30-33) or, for the focus of this piece of research, the interface between adjectives and adverbs (Hummel 2014: 35-37). This interface, the space where the properties of adjectives and adverbs are mixed and their identification as members of one word-class or the other is unclear, is composed of a variety of types and categories.

From a functional point of view, adjectives and adverbs usually appear in complementary distribution (Feuillet 1991: 39-40), which does not always allow the classification of adjectives and adverbs within a specific word-class. This is due to the similarities of these word-classes that have been classified in three groups of correspondences:

- i) Complete correspondences: Adjectives and adverbs use the same affixes and periphrastic structures to express degree, and both word-classes use unmarked terms to express the positive or absolute degree (also mentioned in Quirk, Greenbaum, Leech & Svartvik 1985: 548-560). Some adjectives and adverbs also share their morphology and, even if there is a correspondence in the expression of degree in those units that are morphologically identical, this correspondence is not always morphologically present. Thus, there are terms that have to be distinguished by the morphological mark *-ly*, e.g. *slow/slowly* (Feuillet 1991: 53). The adjectives and adverbs that are morphologically identical can be distinguished by their position in the sentence, in that their distribution will signal reference to the subject or to the verb. This can be seen in *a hard exam*, where *hard* occurs in prenominal position and characterizes the subject and *they work hard*, where *hard* occurs postverbally and expresses manner.
- ii) Partial correspondences. This type of correspondence can be divided according to three different aspects:
 - a) Semantic correspondence between modifying adverbs and adjectives that have been called *situational existences*, e.g. *probable (-ly)*. These adverbs are differentiated from manner adverbs by their distribution and can modify various elements in the sentence depending on their syntactic position. By

contrast, adjectives can modify only nominal or adjectival elements.

- b) Morphological correspondences between ordinal adjectives, as described by Feuillet (1991), and adverbs that have invariant counterparts in *-ly*. However, these words cannot be considered adverbs, because elements such as *first*^{ADJ} have to be accompanied by a nominal nucleus, while *first*^{ADV} does not. The adverb has a syntactic autonomy that the adjective lacks (Feuillet 1991: 55).
- iii) Impossible correspondence. Some adjectives, such as relational adjectives that express belonging, i.e. *serious injury* and *perfect idiot* (cf. French *un blessé grave* and *un parfait idiot*), do not have adverbial counterparts. However, this possibility cannot be appreciated in all languages, and adverbs with a modifying function can never have exact correspondences among adjectives when they are intensifiers, diminishers or downtoners, among others.

Depending on the classification of adjectives and adverbs, there are two types of languages, namely differentiated or flexible languages (Hengeveld 1992: 65-69). The former type classifies adjectives and adverbs as two different word-classes, while the latter only includes one word-class where adjectives and adverbs are the same category. English has been classified as a differentiated language, also known as *specialized language* (Hengeveld, Rijkhoff & Siewierska 2004), in which adjectives and adverbs are considered two morphological word-classes (Hengeveld, Rijkhoff & Siewierska 2004: 65) because of the existence of the derivational suffix *-ly* used in the formation of manner adverbs. This feature makes English different from other Germanic languages classified as flexible languages, because they normally use the unmarked form of the adjective to perform adverbial functions and exclude the use of affixes to distinguish adjectives and adverbs. This is the case of German and Dutch adjectives such as *speziell* ‘special’ or *gelukkig* ‘happy’, whose adverbial counterparts are spelled in the same way, i.e. *speziell* for ‘specially’ and *gelukkig* for ‘happily’. However, the differentiation proposed for English is not always possible and, consequently, English can be considered a language where differentiation coexists and competes with flexibility (Hummel 2014: 35-37).

In order to understand why English is a language where differentiation coexists and competes with flexibility, three types of adverbs have to be considered (Hummel 2014: 37):

- i) Type A refers to morphologically unmarked adjectives that perform adverbial function, e.g. *hard* and *quick*.
- ii) Type B refers to adjectives morphologically marked with the suffix *-ly*, e.g. *badly* and *poorly*.
- iii) Type C refers to underived forms, e.g. *well*.

Type A and B are closely related and the main differences between them are the register and context in which they occur. Both types are often used as discourse markers, but in English discourse markers tend to belong to other word-classes than adjectives, usually type B adverbs or phrases (Hummel 2014: 37). Some items that belong to type A can be found in a syntactic structure where an item from type B would be expected. This type of structure is likely to be found in informal spoken English in examples like *real good* in the place of *really good*. In the case described, type A is used as a modifier of adjectives and adverbs, i.e. a modifier of modifiers. This type of modification has been described under the term *tertiary attributes* (Jespersen 1909-49: 96-103) and is usually restricted to informal spoken language, slang or in substandard English. Regarding the differences between types A and C, the use of one type or the other seems to depend on the dialectal variety of English that is in use. It has been argued that there is a tendency in American English to use type A in the place of type C so that the use of *good* as an adverb is higher in American English than in British English, and in spoken American the use of *real* as an adverb is as frequent as *really* in British English (Bolinger 1972: 29; Biber, Johansson, Leech, Conrad & Finegan 1999: 543; Hummel 2014: 45-46).

The behavior of the previous types and their difficult differentiation in some environments can be related to the history of English. As described above (see § 2.4.1.2), the levelling process at the in early ME, caused the loss of the final *-e* and affected the use of the suffix *-e* to differentiate adverbs from adjectives (Pyles & Algeo 1982: 152-153; Baugh & Cable 2002: 147). Therefore, the distinctive morphological marks of adjectives and adverbs were reduced for different functions of a lexical category and the opacity in the development of these words and their ability to take different syntactic positions and perform various functions without morphological changes make their classification complex (Uhler 1926: 64; Mustanoja 1960: 314; Strang 1970: 272; Fischer 2006: 279). Thus, it has been shown that the development of these word-classes is an important source of material for the adjective/adverb interface (cf. Valera Hernández 1996; Hummel 2014).

It has also been argued that the adjectival and adverbial functions of the items in these word-classes did not depend on the semantics of *-lic*, as seems to be the case for *-ly* in ModE. Semantically, the suffix *-lice* did not need the instrumental ending *-e* when it was used as a manner adverb³ (see §2.4.1.1). This would be explained by the influence of Romance languages on English, since this influence was primarily extended to ordinal numbers in order to form adverbs like *first/firstly*, *second/secondly*, etc. (cf. French *premièrement* or Spanish *primero/primeramente*, all three forms ‘*first/firstly*’), but this tendency was perceived as hypercorrection (Jespersen 1974: 415; Onions 1983; Hummel 2014: 51).

These factors have sometimes been ignored and grammars established type B as the word-formation process used for derivation of adverbs (Pounder 2001: 336-337). However, the use of type A or B across languages and registers depends on the historical impact of standardization on each language (Hummel 2014: 57). The attempts to classify adjectives and adverbs as two clearly separate word-classes do not provide an adequate description of the data presented in the explanation of the interface between these word-classes: A flexible word-class (type A) coexists with a differentiated word-class (type B) and a competition between these word-classes arises (Hummel 2014: 59-60). Thus, two views have been presented in the literature: The former argues for English as a flexible language where one word-class performs the adjectival and adverbial functions, while the latter states that English is a differentiated or specialized language with two separate word-classes, one for adjectives and another for adverbs (Hengeveld 1992: 68-69).

2.4.2.4 Inflection and derivation: The classification of *-ly* and its role in word-class specification

The difference between inflection and derivation is a significantly relevant topic in morphology, but the limits between these processes are not clear-cut. In an attempt to provide criteria to distinguish inflection from derivation, the classifications proposed are based on opposite criteria so that, when a property applies to an inflectional element, it does not apply to a derivational one and vice versa.

³ It has to be noted that previous diachronic research has argued that a functional/semantic distinction can be observed in pairs such as *biter/biterlic* ‘painful/bitter’ that show a functional/semantic distinction (Guimier 1985; McIntosh 1991).

Some classifications argue that inflection is present in all levels of the structure of the clause and derivation present in the morphology of lexical units (Dik 1989) and others consider as a main criterion the interaction between these morphological processes and the syntax of the clause (Anderson 1992: 82-85). Contrary to these views, it has been posed that intermediate or marginal cases that are not prototypical of inflection and derivation may be found (Dressler 1989; Scalise 1988), and this leads to the consideration of inflection and derivation as extremes of a continuum where these share a common area (Bybee 1985: 81-87; Plag 2003: 196) with non-prototypical derivations and inflections (Dressler 1989). An argument in favor of the continuum hypothesis is the existence of portmanteaux morphs, i.e. suffixes that combine inflectional and derivational categories (Ricca 2003). It is the case of suffixes such as *-tore/-trice* in Italian, where the same suffix that derives an adjective from a verb expresses gender too (Ricca 2003: 195).

In English, the distinction between inflection and derivation poses problems when it comes to the classification of the suffix *-ly*. Although the criteria to distinguish inflection and derivation is fuzzy and does not provide a definite answer for the classification of the English *-ly* (Bazell 1953: 72), the classification of this suffix as inflectional or derivational is one of the main factors that affect the general classification of adjectives and adverbs. These grammatical categories are traditionally described as two separate word-classes when *-ly* is a derivational suffix that creates deadjectival adverbs (Priestley 1761a; Sweet 1891; Quirk, Greenbaum, Leech & Svartvik 1985; Anderson 1992; Zwicky 1995 Huddleston & Pullum 2002, among others). However, adjectives and adverbs are not always clearly separate categories and their boundaries are fuzzy, so much so that numerous members of these categories cannot be unequivocally classified as one category or the other and remain in the categorial space between these word-classes (see §2.4.2.3). This view is not acknowledged widely, and some authors have gone one step further proposing the single-category claim where *-ly* is an inflectional suffix, and adjectives and adverbs are members of the same grammatical category (Sugioka & Lehr 1983; Plag 2003; Giegerich 2012; among others).

As a derivational suffix, *-ly* is involved in the creation of deadjectival adverbs. Therefore, this suffix is used as a category-changing suffix that, when added to an adjectival base, derives adverbs with a variety of meanings that can be paraphrased as *in a ... manner*, *to a ... degree*, and *in a ... respect* (Sweet 1891: 118-122; Quirk, Greenbaum, Leech & Svartvik 1985: 1556). The derivational process in which *-ly* is involved has been considered very productive for the creation of deadjectival adverbs because the suffix can be

added to almost every adjective in the lexicon except for adjectives that end in *-ly*, such as *silly* that does not derive *sillily*, and adjectives that already have an adverbial corresponding in the lexicon, such as *good* that instead of deriving **goodly* has the adverbial corresponding *well* (Bauer 1983: 89; Bybee 1985: 84; Quirk, Greenbaum, Leech & Svartvik 1985: 1556; Anderson 1992: 195). The suffix *-ly* is added in certain syntactic environments where an adverb is needed to modify a clause constituent that cannot be modified by an adjective so that *-ly* changes the syntactic category of the words from adjective to adverb (Bybee 1983: 83-85; Quirk, Greenbaum, Leech & Svartvik 1985: 1556; Huddleston & Pullum 2002: 562). Nevertheless, when the derivation of adverbs by *-ly* suffixation is motivated by syntactic factors and does not make a significant semantic change, this suffixation has been described as one to “border on inflection” (Bybee 1985: 83). Thus, in the sentence *Sara gave a thoughtful answer* the adjective is the most suitable form, while in *Sara answered thoughtfully* the suffix *-ly* is required (Bybee 1985: 84). Some authors go one step further and argue that the complementary distribution of adjectives and adverbs is an argument in favor of inflection, as adjectives can function as predicative complements or act as modifiers of nouns, but adverbs can act as modifiers of other word-classes such as verbs or adjectives (Lyons 1966; Edmonds 1976; Bybee 1985; Radford 1988; Baker 2003). In this view, the sensitivity of the suffix *-ly* to the syntactic position of adverbs makes *-ly* an inflectional suffix because syntactic information is a necessary criterion for this type of suffixation (Sugioka & Lehr 1983: 295) and the morphology that depends on syntactic conditions is inflectional (Miller 1991: 95). If syntax is an argument in favor of the classification of *-ly* as inflectional and adjectives and *-ly* adverbs become one grammatical category, the typical syntactic distribution of adjectives may be lost. The distribution of adjectives in postverbal position when these occur in a complement and prenominal position within a noun phrase would be altered because their inflected forms (adjectives marked with *-ly*) would occur elsewhere in the sentence (Giegerich 2012: 355).

One of the syntactic arguments proposed for the classification of *-ly* as an inflectional suffix is based on morphological grounds, as it relies on two constructions that the authors (Sugioka & Lehr 1983) call compounds⁴. It has been argued that the first element in the first type of these constructions such as *beautiful dancer* and *heavy smoker* depends on a verb that is embedded in the second element of the compound. Therefore, the reading of *beautiful dancer* would be *someone who dances beautifully* and the reading of *heavy smoker*

⁴ See Roeper & Siegel (1978:222) for a revision of compounds formed from intransitive verbs containing an adverb that is not derived by *-ly* suffixation.

would be *someone who smokes heavily*. The reason why the compound contains an adjective instead of the adverb from which the adjective can be traced back is that prenominal position is restricted to adjectives (Sugioka & Lehr 1983: 294). Nevertheless, this argument has not been completely accepted:

- i) This combination cannot be considered a compound because the elements in the combination, namely adjective and noun, can occur in different syntactic structures without changes in their meaning (Zwicky 1995: 52; Giegerich 2012: 349). Thus, *beautiful dancer* and *heavy smoker* could occur in sentences like *a very beautiful but sometimes over-confident dancer* and *an at times very heavy but surprisingly intermittent smoker* and present the same reading as proposed for the compound version (Giegerich 2012: 349).
- ii) The combinations proposed by Sugioka & Lehr (1983) have been considered cases of ambiguity between intersective and subjective modification⁵ (Pustejovsky 1995; Jackendoff 1997; Bouchard 2002; Giegerich 2012). The adjective in combinations such as *beautiful dancer* may modify all the noun's semantic constituents in the interpretation *a beautiful person who is a dancer*, or modify a subset of the noun's semantic constituent in the interpretation *someone who dances beautifully*. However, this adjective cannot be considered an adjective in a position typical of an adverb without an adverbial mark, because this ambiguity is also found in combinations such as *good chef* or *efficient nurse* whose noun heads are not deverbal. The behavior of these adjectives shows that subjective modification is a semantic issue. Thus, the adjectives in these combinations are only premodifying adjectives and, therefore, these combinations cannot be considered compounds (Giegerich 2012: 349).

The second type of constructions proposed by Sugioka & Lehr (1983: 298) involves examples such as *quick-dissolving* and *slow-burning* that can be paralleled by adjective phrases, e.g., *quickly dissolving* or *slowly burning*. Consequently, it has been argued that there is no reason to differentiate between the adjective in the compound *slow-burning* and the adverb in *slowly burning*. Based on the inflectional analysis of *-ly*, it could be argued that *-ly* is not

⁵ Intersective modification is that in which an adjective modifies the noun as a whole, while subjective modification is that in which an adjective modifies a subset of the head's semantic elements (Pustejovsky 1995; Jackendoff 1997; Bouchard 2002).

attached to the adjective, because of the ban of regular inflection to occur inside complex lexemes.

In addition to syntax, linguists for whom *-ly* is inflectional have argued that the morphology of *-ly* adverbs is another argument in favor of this view. Regarding inflectional morphology, the arguments appeal to a paradigm criterion in which morphology is exclusive when the morphemes used belong to the same paradigm. Adverbial *-ly* and the expression of the comparative and the superlative degree by suffixation are mutually exclusive (Hockett 1958: 210), so that suffixes used to express the comparative and the superlative degree are not attached to *-ly* adverbs (cf. Stephany 1982: 27-55; Zwicky 1989: 139-173). Thus, based on the paradigm criterion, if inflectional suffixes used to express the comparative degree do not combine with other suffixes, it is because all are inflectional and are mutually exclusive. Besides, the lexical categories *verb*, *noun* and *adjective* have their own inflectional morphology by which members of these categories have the ability to express, e.g., number contrast in the case of nouns, tense contrast in the case of verbs, or degree contrast in the case of adjectives. Nevertheless, *-ly* adverbs do not have their own inflectional morphology, as these do not allow the addition of inflectional suffixes to their bases (Quirk, Greenbaum, Leech & Svartvik 1985: 458-468; Giegerich 2012: 341-343; Bauer, Lieber & Plag 2013: 103-106).

Regarding derivational morphology, simple adverbs are involved in derivational processes by affixation, but *-ly* adverbs do not allow the use of derivational suffixes. For instance, simple adverbs such as *soon* or *seldom* can take affixation as in *soonish* or *unseldom*, while *-ly* adverbs such as *slowly* or *nicely* do not allow the creation of new words as, for example, *slowness** and *niceliness**. While underived adverbs present a derivational behavior as that of adjectives such as *black* that created *blackish* or *kind* that creates *unkind*, *-ly* adverbs do not behave as adjectives derived with *-ly* such as *manly* that creates *manliness* or *lively* that creates *liveliness*. Therefore, the behavior of the deadjectival suffix *-ly* and the suffix *-ly* used to form adverbs is different and it has been argued that the inflectional view of *-ly* is more consistent with the morphological system of English than the derivational view (Giegerich 2012: 341-343). As *-ly* adverbs do not interact in derivational morphology, it may be argued that there are three lexical categories (nouns, verbs, and adjectives) involved in English derivational morphology that can freely interact with each other. Members of the three categories can derive members of the other categories, i.e. verbs can derive adjectives and nouns, nouns can derive verbs and adjectives, and adjectives can derive verbs and nouns. However, the main

lexical category involved in the formation of adverbs is only the category adjective. Whenever adverbs are derived, the suffix involved is always *-ly*, but adverbs do not derive from nouns or verbs by the use of different affixes. Moreover, *-ly* adverbs are not the affixational bases for any derivational process. The interaction between word-classes in derivational processes can be seen in Figure 1 below.

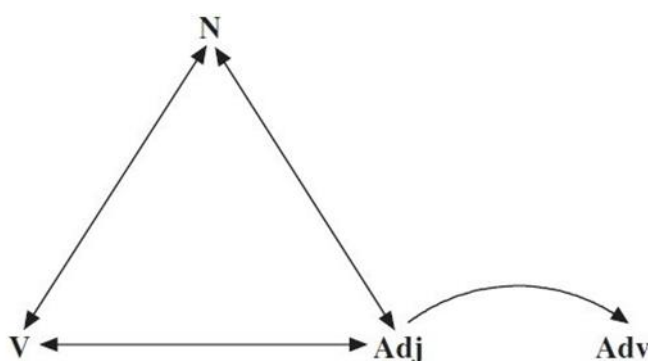


Figure 1. Giegerich (2012) on the place of adverbs in derivational morphology

Beside the syntax and morphology of *-ly* adverbs, the productivity of the suffix *-ly* and its semantic transparency has been posed as another argument in favor of its classification as an inflectional suffix (Bybee 1985: 84; Plag 2003: 196). This claim is quite incorrect because, even if this behavior is compatible with inflection, it is also a property of some derivational suffixes such as *-ness* that is highly productive in the derivation of nouns (Giegerich 2012: 351).

All in all, this review shows different views on the classification of *-ly* as a derivational or as an inflectional suffix. There are arguments in favor and against the classification of *-ly* as one type of suffix or the other, and both classifications are possible according to the aspects of *-ly* adverbs that are considered and the arguments given. Whether the suffix is inflectional or derivational and how it affects the classification of adjectives and adverbs is a question that remains unanswered.

2.4.3 Markedness: The relevance of the suffix *-ly*

The study of the adjective/adverb interface encompasses a wide variety of units that have been traditionally classified within the word-class *adjective* or *adverb* but do not behave as prototypical members of either category. One of the important aspects in the study of the units within this categorial space between

adjectives and adverbs is the relevance of the suffix *-ly*: Some *-ly*-marked units conventionally classified as adverbs perform functions typically associated with adjectives and some *-ly*-unmarked adjectives perform functions typically associated with adverbs. This section provides a description of a set of unmarked and marked units, specifically non-inherent adjectives and subject-related *-ly* adverbs, within this interface.

2.4.3.1 Unmarked units

In a previous section of this chapter (see §2.4.2.1), adjectives have been classified as various types. One of the types of adjectives that is within the adjective/adverb interface is the so-called non-inherent adjectives. Non-inherent adjectives can be described as attributive-only adjectives that do not characterize the noun they precede and, therefore, fail to account for the relative-clause transformation (Bolinger 1967: 1). The relative-clause transformation is a test used to check the ability of the adjective to appear in predicative position after the copulative verb ‘to be’ (Chomsky 1957; Bolinger 1967; Ross 1967). Inherent adjectives such as *beautiful* can change from attributive to predicative position undergoing this relative-clause transformation as in *beautiful girl* to *a girl who is beautiful*. Non-inherent adjectives cannot take predicative position, as in *former roommate*, where the relative clause *a roommate who is former* is not acceptable and the adjective does not characterize the noun.

The ability of non-inherent adjectives to characterize the noun they precede may depend on the kind of modification, namely reference- and referent-modification, performed by the adjective (Bolinger 1967: 14-23). In reference-modification, the attributive adjective refers to the noun it precedes, as in *Henry is a rural policeman*, where *rural* refers to *policeman*, but referent-modification involves the characterization of the noun following the attributive adjective and the subject of the sentence, as in *Henry is a drowsy policeman*, where *drowsy* can characterize *Henry* and *policeman* because both referents are independent from each other, as being drowsy is not related with being a policeman.

Non-inherent adjectives have been widely studied in the literature under several terms such as *relational adjectives*, *associative adjectives*, *non-predicating adjectives*, or *intensifying adjectives* (Bolinger 1967; Lahav 1989; Levi 1978; Sussex 1974; Quirk, Greenbaum, Leech & Svartvik 1985, among others). Some studies relate non-inherent adjectives with the word-class noun and treat them as complex nominals (Levi 1978; Beard 1991, among others),

while others elaborate on their adverbial function and meaning (Givón 1970; Paradis 2001; Ghesquière & Davidse 2011, among others). A review description of previous research on non-inherent adjectives is provided in 2.4.3.1.1, while 2.4.3.1.2 focuses on non-inherent adjectives with the adverbial meaning that is the subject of this thesis.

2.4.3.1.1 General remarks

It has been argued that the ability of attributive adjectives to characterize the noun depends on the compositionality principle which is intended to explain the meaning of a complex expression. According to this principle, the meaning of a syntactic complex expression is a function of the meaning of the syntactic parts that constitute that complex expression (Frege 1960; Montague 1970; Janssen 1986). Based on this definition, the meaning of a noun phrase in which the noun is preceded by an adjective is determined by the meaning of the adjective and the noun in that combination. However, the definition of this principle has been considered vague, because it depends on the sense of ‘function of’, ‘syntactic parts’, and also on what is considered meaning (Lahav 1988: 261; Pelletier 1994: 11). Following this principle, the adjective *red* would contribute in the same way to the meaning of *a red table* and *a red bird* or any other combination, excluding idioms and metaphors, where it occurs.

Nevertheless, a closer analysis of the behavior of adjectives in noun phrases challenges this principle and reveals that the meaning of an adjective in a complex expression varies non-systematically in different linguistic contexts (Lahav 1988: 261). Thus, in order to provide a definition of *compositionality* compatible with the behavior of adjectives, the notion of *applicability conditions* of an adjective has been proposed. This notion refers to the conditions that need to be fulfilled by any noun for the adjective to be able to describe it (Lahav 1988: 262). The applicability conditions of an adjective may depend on the context in which the adjective appears and may be noun dependent, so that the adjective *tall* can apply to *tall man* or *tall building*, but the same adjective does not apply to a noun such as *love* in *tall love*. Some authors have claimed that certain semantic types of adjectives such as color and shape adjectives are noun independent, i.e. these adjectives always provide the same meaning to the noun they combine with (Keenan & Faltz 1985: 122-123), but this argument has been contradicted because color adjectives such as *red* do not require the same conditions to be applied to every noun. Therefore, *a red apple* and *a red book* only need to be red on the outside to be described by the adjective, while *a red crystal* needs to be red inside and outside to be described

by the adjective (Quine 1960; Lahav 1988: 264). Thus, color adjectives do not display a special behavior and their applicability, as well as the applicability of different semantic classes of adjectives, is noun-dependent. The fact that the applicability of adjectives is noun-dependent has thus been considered an argument in favor of the non-compositional semantics of adjectives, because their meaning varies according to the linguistic context where they occur (Lahav 1988: 266).

The ambiguities observed in the meaning of adjectives (Bolinger 1967; Vendler 1968; Siegel 1974; Allen 1978) have also been studied as *bracketing paradoxes* (Sproat 1984; Spencer 1988; Beard 1991; Newell 2005), i.e. as complex words or constructions that have mutually exclusive analyses. The so-called bracketing paradoxes have been approached from various perspectives focusing on aspects like morphological problems of scope ambiguity, problems arising from stratal theories of morphology, and adjective-nouns constructions. The third type of construction is related to non-inherent adjectives, as this type of construction includes attributive adjectives that present scope ambiguities (Beard 1991: 195). Thus, adjective-noun combinations analyzed within the bracketing paradoxes can be viewed differently:

- (25) a. [nuclear] [physicist] ‘a physicist who is nuclear (for a project)’
b. [nuclear physic]ist ‘someone who studies nuclear physics’
- (26) a. [Russian] [teacher] ‘a teacher who is Russian’
b. [Russian teach]er ‘someone who teaches Russian’

The (a) examples show the wide scope of interpretation of the attributive combinations, while the (b) examples show the narrow scope of interpretation. The reading of a construction varies according to the scope of the suffix used in the creation of the noun. Therefore, the narrow scope of interpretation is possible when the meaning of the construction falls into the scope of the suffix, and the wide scope of interpretation is possible when the meaning does not fall into the scope of the suffix. While the wide scope parallels syntactic structure, the narrow scope has been considered less transparent (Beard 1991: 196). In order to identify the narrow scope of attributive adjectives, three tests have been proposed:

- i) The ‘as a’ test (Bolinger 1967): This is used to check whether the adjective can be used in a phrase where ‘as a’ is inserted between the adjective and the noun. In constructions such as *good athlete*, the

- paraphrase *someone who is good as an athlete* is possible, but *an athlete who is good as a person* does not (Beard 1991: 198).
- ii) The ‘inherent feature test’ (Bolinger 1967): This is used to check whether the adjective modifies a salient inherent feature of the noun or not. According to this test, in constructions such as *criminal lawyer*, the adjective does not refer to the noun *lawyer* but to its component *law*. In the paraphrase used for this construction, it would be someone into criminal law (Beard 1991: 198).
 - iii) The adverb/predication test (Marchand 1966): This is used to check if the adjective is traced back from an adverb that modifies a verb used to derive the noun in the noun phrase. For example, the construction *free thinker* can be paraphrased as *someone who thinks freely*, where the noun is derived from the verb *think* and the adjective is recovered from the adverb.

It may be possible that a test does not work for an example, but when a test fails, one of the other two tests usually identifies the narrow scope of interpretation (Beard 1991: 198).

One of the proposals for disambiguation of these constructions is structural reanalysis, except that these ambiguities can also be observed in combinations such as *former diplomat* or *probable hero*, where the nouns are underived (Fanselow 1988: 114-115; Beard 1991: 201). Another attempt to solve these ambiguities, in the framework of Transformational Grammar, is based on a process of analogical back-formation established over permanent existing entries in the lexicon (Williams 1981; Kiparsky 1983; Spencer 1988). This process assumes that only attributive phrases that are idiomatic and have been lexically listed can fall under scope ambiguity (Beard 1991: 203). This lexical approach cannot be applied to the ambiguity in attribute phrases because of the productive availability of narrow scope interpretations for all attributive phrases (Beard 1991: 204). The problems identified in the solutions proposed to solve the scope ambiguities in attributive adjectives lead to the consideration of the problem as a semantic one, not as a structural or lexical one. This semantic approach would be supported by the inherent feature test so that the solution of the ambiguity problems could be based on the semantic features of the adjectives and nouns in the syntactic constructions considered. Three types of semantic features can be applied to lexical entries: category assignment like *THING* or *ACTOR*, function indicator like *[CUT]* or *[FRIENDSHIP]*, and features that represent categories like *[LARGE]* or *[HUMAN]*. Based on these features and in order to shed some light on the scope ambiguities of attributive adjectives, the *Principle of Decompositional Composition* has been proposed. This

principle indicates that the semantic features of an adjective can be the argument of one of the semantic features of a noun (Beard 1991: 208). According to this principle, the semantic feature [OLDNESS] of the non-inherent adjective *old* in *old friend* characterizes only one semantic feature of friend, namely [FRIENDSHIP], and not the noun as a whole (Beard 1991: 210)⁶.

Combinations of attributive non-inherent adjectives and nouns have also been studied with a focus on compounding by studying the syntactic and semantic properties of these units as part of complex nominals (Levi 1978). Complex nominals include denominal adjectives that precede nouns and encompass three terms that refer to the same structure, namely nominal compounds, nominalizations, and noun phrases containing non-predicating adjectives. Thus, a complex nominal can be defined as a syntactic construction that has a noun as a head and this head is modified by another noun or a denominal adjective (Levi 1978: 38-39). Constructions of this type are *musical criticism*, *presidential refusal*, or *electric shock*, among others. Complex nominals are claimed to be formed by two syntactic processes, specifically deletion and nominalization. Hence, nine deletable predicates and four types of nominalizations have been proposed for these syntactic processes:

Table 5. Types of predicates proposed by Levi (1978)

RECOVERY DELETABLE PREDICATE	CONSTRUCTION
Cause	<i>Tear gas</i>
Have	<i>Picture book</i>
Make	<i>Musical clock</i>
Use	<i>Voice vote</i>
Be	<i>Target structure</i>
In	<i>Morning prayers</i>
For	<i>Horse doctor</i>
From	<i>Solar energy</i>
About	<i>Tax law</i>

⁶ Further justification for the analysis of adjectives like *old* as nominals of quality is found in Givón (1970) and a similar analysis of other constructions is provided by Quirk, Greenbaum, Leech & Svartvik (1985: 435-436).

Table 6. Types of nominalizations proposed by Levi (1978)

PREDICATE NOMINALIZATION	CONSTRUCTION
Act	<i>Parental refusal</i>
Product	<i>Musical critique</i>
Agent	<i>City planner</i>
Patient	<i>Student invention</i>

The list of 383 relational adjective-noun (hereafter, RAdjN) and noun-noun (hereafter, NN) compounds provided by Levi (1978) has been used in cross-linguistic studies that focus on relational adjectives (ten Hacken 2019). The translation of the examples from Levi's list into German and Italian⁷ has been used to test the hypothesis that '[...] in two languages which have RAdjN combinations and other compounding constructions, there is no correlation between the names chosen for the same concept' (ten Hacken 2019: 80). This hypothesis is illustrated in the behavior of pairs such as *unleaded/unverbleit* and *lead-free/bleifrei* in English and German. In English, *unleaded* is more frequently used than *lead-free*, whereas in German *bleifrei* is preferred to *unverbleit*. According to the hypothesis about the correlation of the naming process in different languages, RAdjN and NN compounds in different languages would show different strategies in the names chosen in their formation so that the choice is made independently in each language. The results in ten Hacken (2019: 83-85) provide quantitative data of RAdjN and NN combinations in German, Italian and English, showing that Italian has more RAdjN combinations than English, where the number of this combination is higher than the number of RAdjNs in German. The comparison of the correspondences between languages reveals that almost all the German RAdjNs correspond to English RAdjNs, and that English RAdjNs are more likely to correspond to Italian RAdjNs than English NNs. The results, therefore, show that the hypothesis is not confirmed by the data, because the cross-linguistic correlation shown by the choices made in every language evidence that the choices are not random.

The studies presented above show two different views on the origin of constructions containing non-inherent adjectives and nouns:

- i) phrases that have a syntactic origin (Lahav 1988; Beard 1991), and

⁷ The translations into German and Italian were provided by professional translators, Christina Muigg and Laura Rebosio, who took into consideration the levels of equivalence of the expression in each language (ten Hacken 2019: 85-86)

- ii) compounds of a lexical origin (Levi 1978; Giegerich 2005; ten Hacken 2019).

Therefore, the combinations of these adjectives and nouns would simultaneously be phrases and compounds. Research on a subset of non-inherent adjectives that has been called *collateral adjectives* and *associative adjectives* (Pyles & Algeo 1970: 129; Ferris 1993: 24; Huddleston & Pullum 2002: 556; Koshiishi 2002: 49-50; Giegerich 2005: 572) focuses on the lexicon-syntax interface, and elaborates on three aspects that influence the origins of these constructions:

- i) Based on the Lexicalist Hypothesis (Chomsky 1970), the constructions under study can be considered compounds and, therefore, of lexical origin. The constituents in these constructions are liable to undergo morphological processes but not syntactic processes. Therefore, adjectives in these constructions do not occur in predicative position, cannot take syntactic modifiers, and cannot occur with every noun. These syntactic restrictions can be exemplified by combinations such as *bovine tuberculosis* and *vernal equinox*. The adjective *bovine* in *bovine tuberculosis* cannot occur in predicative position as in **this tuberculosis is bovine* and does not allow syntactic modification as in **bovine contagious tuberculosis*. The adjective *vernal* is only combined with *equinox* and cannot be used in combinations such as *vernal flower* or *vernal weather* (Giegerich 2005: 576). It should be noted that associative adjectives could be syntactically replaced by nouns, as in *spring equinox*, but they cannot display the morphosyntactic characteristics of nouns (Levi 1978: 37-48; Giegerich 2005: 576).
- ii) Based on the syntactic operation in which pro-form *one* is used to confirm or discard the lexical status of an operation (Bauer 1998; Huddleston & Pullum 2002: 554; Stirling & Huddleston 2002: 151), some constructions have syntactic origin. There are constructions in which the noun preceded by the adjective is replaced by *one* and the sentence is still acceptable. Adjectives such as *bovine*, *feline*, and *tropical* can occur in constructions with *one* and modify it when *one* replaces a suitable head for the adjective. Therefore, constructions such as *is this the bovine strain of the disease or the feline one?* and *is this a cold-water fish or a tropical one?* are acceptable and prove the syntactic origin of the construction (Giegerich 2005: 580).
- iii) Another aspect considered to influence the origin of the associative adjective-noun constructions is their stress pattern. The analysis of the

stress pattern has been used for the distinction between compounds and phrases (Lees 1963; Marchand 1969; Liberman & Sproat 1992; Bloomfield 1933; Bauer 2004; Giegerich 2004;). According to this analysis, compounds have fore-stress and phrases have end-stress. Constructions such as *blackbird* vs. *black bird* and *whiteboard* vs. *white board* exemplify the stress pattern proposed (Bauer 2004: 9). However, the stress pattern is not always clear, because some constructions such as *olive oil* present variations in their stress pattern and can be phrasal and lexical (Giegerich 2004). The same variation can be observed in constructions of associative adjectives and nouns where end-stress is available for compounds and phrases whereas fore-stress is available for compounds only (Giegerich 2005: 587). There are fore-stress constructions like *dental appointment* or *financial advisor* that should be classified as compounds, but these constructions are available for pro-one constructions such as *Do you have a medical appointment or a dental one?* and *Is he a legal advisor or a financial one?*.

The arguments presented to clarify the origin of the constructions containing non-inherent adjectives and nouns show that, depending on the construction, the origin can be syntactic, lexical, or both. Constructions that are available for pro-one structures are phrasal, while those constructions that fit the criteria of the lexicalist hypothesis are lexical. It is the last argument presented, namely stress pattern, that shows how some constructions can be simultaneously phrases and compounds so that the lexicon and syntax are not clearly separated areas and show some overlap where these constructions can be found.

The above review shows that the properties of non-inherent adjectives in relation to the word-class noun have been comprehensively analyzed and explained in previous research. However, there is a subset of these adjectives that has been left outside the scope of most studies, namely attributive adjectives derived from adverbs. Previous research (Levi 1978: 8) provides a list of such examples, like *potential enemy* and *former roommate*, but the research in question does not include these examples in its analysis. These premodifying elements do not express a property of the noun, since *former* does not characterize *roommate* and *enemy* is not characterized by *potential* so, these adjectives express TIME LOCATION and MODALITY, respectively. These combinations cannot be derived from an adjective in predicative position (cf. **the enemy is potential* or **the roommate is former*), but they can be traced back from adverbial structures such as *they are all potentially enemies* and *She was formerly a roommate of Sue's* (Levi 1978: 8).

2.4.3.1.2 Adverbial meaning

Previous sections of this chapter elaborate on the restrictions in the position of adjectives and mention how position can affect the meaning of attributive adjectives (see §2.4.2.1 and §2.4.3.1). One of the reasons why some adjectives cannot characterize the noun in attributive position is that they are not recovered from an adjective in predicative position, but from a predication containing an adverb that is recovered as an adjective (Bolinger 1967: 4; Givón 1970: 828-829; Levi 1978: 8). As with complex nominals, non-inherent adjectives with adverbial meaning have been studied as compounds and phrases (see 2.4.2.4 for an account of these combinations as compounds). In their view as phrases, most adjectives recovered from adverbs express intensification, because their only function is that of strengthening the meaning of the noun they precede (Quirk, Greenbaum, Leech & Svartvik 1985: 429). There is a group of adjectives such as *complete* in *complete fool* and *extreme* in *extreme enemy* that are used as amplifiers and perform the same function as intensifiers. Based on such examples, it has been hypothesized that some adjectives expressing intensification have homonyms that can occur in predicative position as *certain* in *their victory is certain* or *extreme* in *his condemnation was extreme* (Quirk, Greenbaum, Leech & Svartvik 1985: 430-432).

The ability of adjectives to express intensification is not limited to PDE as it is also present in OE and ME. Corpus evidence of the diachronic development of three noun-intensifying uses of adjectives provides an in-depth case analysis of the adjectives *complete*, *whole*, and *particular* that follows three pathways (Ghesquière & Davidse 2011):

- i) Noun-intensifying uses derived from descriptive meanings of the adjectives, e.g. *complete*. It has been argued that the original meaning of *complete* ‘having all its parts’ has evolved into the expression of degree and reinforcement (Paradis 2000: 235). This argument has been supported and expanded in further research by posing two noun-intensifying uses of *complete* (Ghesquière & Davidse 2011: 259-264). The first noun-intensifying use of *complete* can be ascribed to its descriptive meaning ‘realized in their full extent’. In the example *complete failure*, the adjective refers to the attempt that has failed in every respect, even if the intensifying use of *complete* in the example is very close to the original descriptive sense of the adjective. The second noun-intensifying use of *complete* comes from the descriptive meaning ‘perfect’, which can be traced back to the period between 1710 and 1780, when this adjective started to be used in combination

- with nouns typifying people to intensify their positive or negative qualities (Ghesquière & Davidse 2011: 263).
- ii) Noun-intensifying uses traced back from quantifying-identifying uses of adjectives, e.g. *whole*. A shift from the quantifying secondary determiner use of *whole* to its noun-intensifying use has been proposed based on the ability of the first use to reinforce the reference to the noun phrase (Ghesquière & Davidse 2011: 265).
 - iii) Noun-intensifying uses originated from identifying uses, e.g. *particular*. An intensifying use of *particular* normally emerges when the adjective heightens evaluative notions that are present in a degree noun. In examples such as *I took particular notice of it*, *particular* refers to the high degree of awareness when observing an event. This noun-intensifying use developed from the use of *particular* as a secondary determiner where *particular* is emphasized by the use of possessives, as in *its own particular interest* (Ghesquière & Davidse 2011: 270).

The intensifying use of these adjectives has been considered to be collocational (Ghesquière & Davidse 2011: 275), which confirms the point raised in other studies that argued that collocational processes are important factors that facilitate processes of language change (Lorenz 2002; Brems 2010).

The behavior of intensifying non-inherent adjectives has also been studied in specific registers such as fiction (Pavličková 2014). This study includes non-inherent adjectives extracted from several novels and provides quantitative and qualitative data of adjectives according to the suffix used to derive them and the position of the adjective in the sentence. The majority of the adjectives in the corpus (63%) are unmarked, so they do not have any adjectival suffix (e.g. *old*, *deep*, *hard*, or *big*). The most frequent suffixes in the data (21%) are *-y*, *-ous*, *-al*, *-ful*, *-like*, and *-ish*, while participial suffixes, i.e. *-ed* and *-ing* are less frequent (16%) than the rest of suffixes. Regarding the position of adjectives in the sentence, Pavličková (2014: 39) argues that attributive non-inherent adjectives amount to 72% of the adjectives analyzed.

Another factor that can be considered in the ability of adjectives to develop noun-intensifying meaning is their classification as bounded or unbounded (Paradis 2001). Boundedness has been applied to count and non-count nouns and continuous and non-continuous verbs, but it is a property that can also be observed in gradable adjectives. Bounded adjectives belong to the end of a scale and show a complementary or antonymic relationship as in the pairs *dead/alive* and *excellent/terrible*, respectively (Bolinger 1967: 4, Paradis

2001: 7-8). These adjectives can be modified by adverbs expressing maximality or approximation as in *wholly dead* or *almost dead* (Kennedy & McNally 2005: 352-354). Unbounded adjectives express gradable properties on a scale, as in the pair *long/short* (Lyons 1977: 289; Martin 1992: 303). These adjectives can be modified by adverbs that measure the degree of the quality on a scale, as in *rather/very long* (Ghesquière & Davidse 2011: 254). Adjectives are not intrinsically bounded or unbounded, because it is possible to coerce a bounded reading into an unbounded one (Paradis & Willners 2006: 1074). The hybrid nature of these adjectives has been underlined for their ability to describe extremes or ranges on a scale, like the adjective *complete* that allows a bounded interpretation in *most complete* and an unbounded one in *very complete* (Ghesquière & Davidse 2011: 254).

Polysemy is another relevant feature in the classification of adjectives within boundedness (Paradis 2001: 11). Adjectives such as *sober* can be polysemous in expressions like *a sober man*, where it can refer to ‘someone who is not drunk’ or ‘someone who is serious and thoughtful’. These interpretations lead to two different scenarios, and the first sense of *sober* shows bounded and unbounded interpretations. *Sober* can be the extreme on a scale as the antonym of *drunk* and can also be a point on a scale, as in *The next day my guests were all rather sober* (Paradis 2001: 11). The second sense can only be unbounded as in *a very sober man*. The schematic domain of some adjectives could take over their interpretation in the content domain⁸, not only leading to polysemy, but also showing the development of some adjectives from content words to function words. This is the case of adjectives such as *complete*, *perfect*, *extreme*, or *total* in combinations as *a complete misunderstanding*, *a perfect idiot*, *extreme pleasure*, and *total crap*. These adjectives have become grammaticalized from content words to markers of degree (Joseph 2003; Joseph 2021: 3; Paradis 2000; Paradis 2001).

2.4.3.2 Marked units

2.4.3.2.1 Subject-orientation

English is not the only language in which the classification of adjectives and adverbs poses problems. Languages such as Spanish also pose difficulties when differentiating these grammatical categories, for the ability of some members

⁸ Following the concepts in Cruse & Togia’s (1996: 113f), Paradis (2001: 2) distinguishes between content and schematic domain. The concept of content domain is used to refer to the meaning of adjectives, while schematic domain is used to refer to “the conceptual representation for specific configurative frames” (paradis 2001: 2).

of one category to perform the same function as members of the other (cf. Figure 1). Thus, it has been argued that Spanish inflected adjectives, which may mark number and gender, can be event- or participant-oriented as in *La niña corre rápida* ‘the girl runs fast’. where *rápida* can refer to the way the girl runs or a property of the girl (she is fast). The same can be observed in English when adjectives and adverbs classified as members of Type A (Hummel 2014: 37) perform adverbial and adjectival function (see § 2.4.2.3).

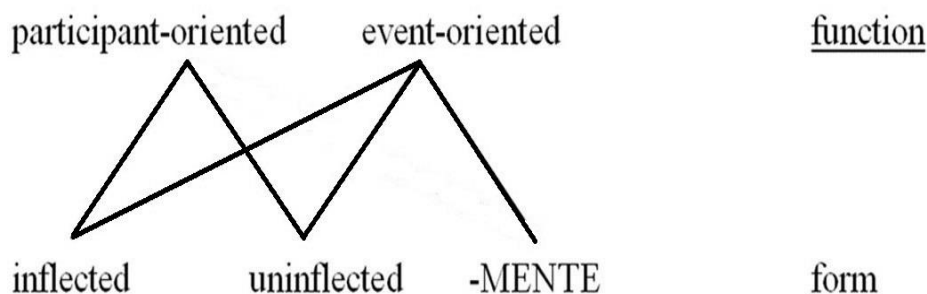


Figure 2. Heidinger's (2014) representation of adverbial and adjectival functions in Spanish

The ability to characterize the subject and the verb at the same time is not restricted to adjectival inflected and uninflected forms. English *-ly* adverbs can also be both event- and participant-oriented. These *-ly* adverbs have been referred to as *subject-oriented adverbs* (Geuder 2000; Ernst 2002; Himmelman & Schultze Berndt 2005; Piñón 2009; Broccias 2011). *Subject-orientation* is a term originally used to describe French adverbs ending in *-ment* (Guimier 1991), but it can also be noticed in English adverbs ending in *-ly* (Valera 1998). It can be defined as a feature of *-ly* adverbs that can perform the syntactic function adverbial and the predicative function subject complement (Guimier 1991: 100). Subject-oriented adverbs can occur in post and preverbal position and have a double orientation, since they are event- and participant-oriented at the same time. This double orientation of the adverb can be identified by paraphrasing the sentence where the adverb occurs, as in the following examples:

- (27) Cautiously, Mary replied.
 a. Mary replied in a cautious way.
 b. Mary was cautious as she replied.

The paraphrases in (27) show the double orientation of the adverb *cautiously*. In (27a) the paraphrase illustrates the ability of the adverb to express manner and be event-oriented, while the paraphrase in (27b) shows that the meaning of

cautiously can also be attributive and, therefore, the adverb is participant-oriented.

According to the original source of this topic (Guimier 1991: 97), subject-orientation is not present in all *-ly* adverbs, so subject-oriented *-ly* adverbs display two features:

- i) The position of the adverb phrase in initial or medial position and close to the syntactic subject in the sentence: The orientation of the adverb is favored, if the *-ly* adverb is in initial or medial position in the sentence, because it is close to the clause constituents it refers to.
- ii) The semantic compatibility of the adjectival base used to create the *-ly* adverb and the noun in the subject: This compatibility can be tested by applying Guimier's (1991: 97) paraphrase 'Sujet est Adj.' 'subject is adjective'. Adjectival bases that can take the predicative position in the paraphrase have an intensive relationship with the subject and, consequently, the *-ly* adverb is subject-oriented.

This argument and the features presented for *-ly* adverbs to be subject-oriented in French have been questioned in English. Thus, it has been argued that the syntactic position of English *-ly* adverbs is not a relevant feature in their ability to be subject-oriented both because there are adverbs that cannot be subject-oriented even if they take initial or medial position in the sentence and, more important, because orientation may remain regardless of position (Valera 1998: 273). However, the intensive relationship between the adjectival base used to create the *-ly* adverb and the subject is maintained for adverbs to be subject-oriented in English (Valera 1998: 274). In addition to this argument, there are also *-ly* adverbs that cannot be involved in subject-orientation due to:

- i) Grammaticalization of the *-ly* adverb: Some *-ly* adverbs develop a meaning that differs from the meaning of their adjectival bases. This meaning developed by the *-ly* adverb is typically intensification (Bolinger 1972: 21-25, Valera 1998: 276), so it does not allow the relationship between the noun and the adjectival base of the *-ly* adverb:
- (28) 'They're awfully glad you've come', said Celia to him, as though the room were empty
- a. [They are very glad]
 - b. *[They are awful and glad]

As the first paraphrase shows, the adverb *awfully* performs only the function of intensifier of the adjective *glad*, and it cannot express a property of the subject, so the predicative function typical of subject-oriented adverbs is not present in this type of adverbs.

- ii) The semantic relation between the adverb and the adjective when they occur in a structure of modification: This is the case of adverbs that occur immediately before an adjective in an adjective phrase in which the only function of *-ly* adverbs is modifier of the head adjective. This structure of modification can have its origin in a clause in which the adverb belongs to various types of adverbials, e.g. conjuncts and disjuncts (Valera 1998: 276), e.g.:

- (29) Once, when her door was open to admit a caller, he heard the radio on; and he heard it, again, late at night, muffled through that closed door and the supposedly soundproof wall.
[Supposedly, the wall was soundproof]

2.4.3.2.1.1. Valency

Subject-orientation can be related to the concept *valency* (cf. Tesnière 1959; specifically for this dissertation, cf. Somers 1984). This term has been used to refer to the compulsory complements that the verb takes, i.e. whether a complement can be deleted or not without changing the acceptability and/or the meaning of the sentence, and whether a verb needs a complement to make the meaning of the sentence complete. Manner adverbs derived by *-ly* suffixation can be deleted more often than other clause constituents such as adjectives, because they express meaning that is not compulsory in the sentence.

Valency is related to the types of syntactic constructions that are possible in a sentence and the relation between the elements in that construction. In syntactic structures such as *They made it green*, it can be considered that the pronoun *it* and the verb *made* are related and *green* is also related to *it*. These constructions have been described as *complex transitive* (cf. Matthews 1980) and, considering the relation between *green* and *it*, they can be called *ascriptive* (Lyons 1977: 469). Ascriptive sentences present a syntactic structure consisting of a subject, a verb phrase, and a complement realized by a noun, an adjective, or a locative or possessive expression⁹. These sentences

⁹ The following syntactic structures have been proposed by Lyons (1977: 469):

NP+V (intransitive)

NP+V+NP (transitive)

NP(+Cop)+NP (equative)

are predicative constructions in which the noun or the adjective following the verb identifies or expresses a property of the subject (Lyons 1977: 470). In the example *They made it green*, *green* is incorporated as dependent of the pronoun as in *it is green*. Thus, the object and the adjective are part of the same element of complementation and exemplify a pattern where the transitive and the ascriptive types of sentences are fused.

According to Matthews (1980), in intransitive constructions such as *It turned green* the verb can stand alone and does not require a specific complementation. Even so, it has also been claimed that the adjective following the verb is related just to the subject (Matthews 1980: 42), perhaps for selectional restrictions, which in this particular example are imposed by the subject and the verb is outside the restrictions. Thus, some restrictions are imposed by some verbs and some adjectives are limited to specific collocations. Therefore, there are verbs that can take some adjectives, but not others. This is the case of *It grew sour* and *It grew old*, where the former is not acceptable, but the latter is (Matthews 1980: 43). These restrictions imposed by some verbs and adjectives may lead to a relationship of dependency between clause constituents.

There are simple intransitive constructions in which the verb only takes the subject as its complementation. These constructions can include adjectives such as *sober* in *He arrived sober*, where the adjective could be considered as circumstantial and non-compulsory (Matthews 1980: 44). Nevertheless, the adjective *sober* presents an ascriptive link because it could be interpreted as *He was sober*. When there is no ascriptive link between the verb and the word following it, the third element is usually an adverbial as in *He ran fast*. Therefore, this type of constructions could be influenced by the adjective that occurs after the verb and constructions such as *He arrived sober* can be considered more circumstantial than others, such as *It turned green* (Matthews 1980: 45). The distinction of these intensive constructions, circumstantial and adverbial, may pose difficulties that cannot always be solved by the transformation of the construction and, consequently, two possibilities can be found within this transformation (Matthews 1980: 47-48):

- i) If the ascriptive transform is possible and the simple intransitive is not, the third element must be considered a complement of the subject, e.g.:
The roses have run wild cannot be changed into *The roses have run*,

NP(+Cop)+N/A (ascriptive)

NP(+Cop)+Loc (locative)

NP(+Cop)+Poss (possessive)

nor does it completely match *The roses are wild*, because the adjective *wild* cannot stand in relation to the verb.

- ii) If only the simple intransitive is possible and the ascriptive is not, the construction has to be considered intransitive with an adverbial, e.g. *He ran quickly* cannot be transformed into the ascriptive *He was quickly* and, therefore, *quickly* has to be analyzed as adverbial.

The problem emerges when both, complement and circumstantial, are possible, which indicates that the word is subject-oriented. The example *They stood still* can be interpreted as *They were still*, thus it can be a complement. However, as it is possible to use a simple structure as *They stood*, it still might be circumstantial (Matthews 1980: 48). In order to solve the duality of these constructions, degrees of circumstantiality can be applied, but these structures continue to be difficult to analyze (Matthews 1980: 48).

2.4.3.2.2 Subject-relatedness

Subject-relatedness is a property of subject-oriented *-ly* adverbs that do not perform the syntactic function adverbial and only retain the predicative function typically associated with adjectives (Díaz-Negrillo 2014, Valera 2014). Subject-relatedness is illustrated in:

- (30) a. The soft fall of her hair over her shoulders **gleamed red** in places.
b. His eyes **gleamed redly** again.
- (31) a. [T]he clouds **stood black** against the unexpected sunlight and the landscape took on another, indefinable dimension.
b. He grinned as she pushed up on the window sill, her head down, hair **hanging blackly**.

Examples (30b) and (31b) contain subject-related *-ly* adverbs since *redly* and *blackly* do not express a circumstance and instead characterize the subject by indicating the color of the eyes in (30b) and the color of the hair in (31b), i.e. *red* and *black* are not ways of *gleaming* or *hanging*, respectively: They are properties of a co-occurring head of a NP. Subject-related adverbs have the same type of reference as predicative complements such as subject or object complements. Except for their morphology, there are no differences between *red* and *redly* or *black* and *blackly* in (30) and (31), i.e. the only distinction that can be made between subject-related adverbs and predicative complements is their morphology.

Subject-relatedness could be considered a lexical effect caused by the semantic compatibility between the nominal head of the subject and the adjectival base of the *-ly* adverb and, also, by an inherent property of the *-ly* adverb that is not compatible with the predicator (Valera 2014: 89).

In this relation between the various elements in the sentences, semantic features such as STATIVE/DYNAMIC (Lakoff 1966) can play a significant role. It has been explained why a stative adjective cannot derive an adverb, but a dynamic adjective can form adverbs: Adverbs are, in general, dynamic words (Kjellmer 1984: 8). This may prove an important variable in subject-relatedness because, at phrase level, head adjectives that are premodified by *-ly* adverbs whose bases are stative adjectives do not allow the adverbial interpretation and the only possible relation with the co-occurring noun is of the predicative kind, the *-ly* adverb in question being a case of subject-relatedness (Díaz-Negrillo 2014: 470-471). The contrast can be made when the same premodified adjective allows the dynamic interpretation and, consequently, allows interpretation as an adverbial:

- (32) You know, my dear, the gospels are not at all clear on that point. Personally I would like to believe it to be **peacefully verdant**. As it says so clearly in the Psalms. Walking in green pastures.
- (33) How ironic that someone who had held her spellbound as a child and had lingered in her imagination for years should have turned out to be so **arrogantly cold** and superior.

The premodifying *-ly* adverbs in (32) do not express adverbial meaning, because there is no peaceful way of being verdant. The adjective *verdant* in (30) is stative and is not compatible with the adverbial interpretation of the preceding *-ly* adverbs, while the meaning of *cold* in (33) is dynamic referring to the attitude of the subject and allows the adverbial meaning.

Subject-relatedness can occur at phrase and at clause level (Valera 1998, 2014). These are the two types of structures where these words can be found:

- i) At phrase level: The subject-related adverbs are located in adverb phrases that precede an adjective phrase. In these structures, the *-ly* adverb preceding the adjective phrase does not premodify the adjective but the same noun as the adjective it precedes. The adjective and the *-ly* adverb in these examples have the same type of reference, i.e. both characterize the subject:

- (34) The attractive latticework top looks **nicely brown** and sugary.
 Adverbial > *[The top looks brown in a nice way/to a nice degree]
 Predicative > [The top looks brown and nice]
- (35) This **mournfully bright** menial Val wore high heels and a black beret.
 Adverbial > *[The menial was bright in a mournful way/to a mournful degree]
 Predicative > [The menial was bright and mournful]

In these examples the adverbs *nicely* and *mournfully* do not express circumstance, but a quality of the noun they refer to. As evidenced in the paraphrases and, unlike subject-oriented adverbs, the adverbial interpretation is not possible in any of the examples, because they do not allow the expression of circumstance that is allowed in subject-orientation. The only paraphrase that can be used in these examples is the predicative one.

- ii) At clause level: The *-ly* words are located, typically, near the verb. A considerable number of examples including subject-related adverbs at this level have been reported to be part of one of the central semantic classes of the category *adjective*, namely color adjectives (Dixon 1977; Valera 2014: 90). These words do not refer to the verb but to the subject and they retain the mobility of adverbs, but not their meaning:

- (36) Marcus stared **palely** at his plate.
 Adverbial > *[Marcus stared in a pale manner/in a pale way/to a pale degree]
 Predicative > [Marcus was pale as he stared at his plate]
- (37) The door was tightly laced, and a pressure lamp burned **whitely**.
 Adverbial > *[A lamp burned in a white manner/in a white way/to a white degree]
 Predicative > [A lamp was white as it burned]

As the paraphrases in examples (36) and (37) show, the *-ly* words do not express circumstances, but qualities of the nominal elements they refer to. This distribution is typical of adjuncts that express the manner in which the action denoted by the verb is developed, but these adverbs differ from manner adjuncts and do not refer to a pale or white way of staring or burning (they refer to the color of Marcus's face and the lamp, respectively).

The difference between subject-related *-ly* adverbs at both levels is that subject-related adverbs at clause level have the same behavior as predicative elements such as subject complements, but they keep the mobility and optionality that is characteristic of adverbials instead of the position and obligatoriness of subject complements (Valera 2014: 92). Subject-related adverbs differ from other adverbs that also perform predicative function, namely subject-oriented adverbs, and can be situated at a different point in the adjective/adverb interface, because, as there is no adverbial function, they can be justified as closer to the category adjective in the categorial space between adjectives and adverbs (Valera 2014: 99).

The examples of subject-relatedness at clause level provided in this section are part of corpus evidence of subject-relatedness that has been found in previous research where the common property of the adjectival bases is that these are color adjectives (Valera 2014). Thus, subject-related *-ly* words can be included in classifications where there is a lack of the category adverb, and adjectives and adverbs are one word-class, or it can be argued that subject-related *-ly* evidences overlap between word-classes (Valera 2014: 99). There is a mismatch between the morphology and semantics of subject-related *-ly* words since they are morphologically marked as adverbs, but their meaning is that of their adjectival bases and their function is predicative as the function of prototypical adjectives. Thus, two different interpretations of subject-related words have been put forward (Valera 2014: 95):

- i) Subject-related *-ly* words are part of the category *adverb*, for their morphology and also because they display syntactic properties typical of adverbials, such as mobility and optionality.
- ii) Subject-related *-ly* words are adjectives, for their distribution and for their semantic properties. The morphological features included as relevant in the first interpretation are not considered in this classification.

These interpretations do not fully correspond with the behavior of subject-related words. It has also been argued (Valera 2014: 95) that subject-relatedness results from the lack of semantic incompatibility between the verb and the *-ly* adverb in a given combination or that it could also be an inherent property of these *-ly* words that do not allow adverbial interpretation. Accordingly, there are two types of subject-relatedness:

- i) Extrinsic subject-relatedness: It depends on the verb with which the *-ly* word is combined and is caused by the incompatibility between the verb and the *-ly* word.
- ii) Intrinsic subject-relatedness: It does not depend on the verb with which the *-ly* word combines, but on inherent properties of the *-ly* words, because they do not allow the adverbial interpretation.

In intrinsic subject-relatedness, the suffix only provides mobility and/or optionality to the words and there is no derivational process involved in the creation of an adverb. In extrinsic subject-relatedness, the functional and semantic properties of the *-ly* words depend on lexico-semantic compatibility which only occurs in certain combinations (Valera 2014: 95). Hence, subject-relatedness provides evidence of *-ly* adverbs that only perform predicative function and behave identically to their adjectival counterpart.

Subject-related adverbs have also been studied under the term *subject-modifier adverbs* (Swan 1997). This type of adverbs is addressed within the framework of Cognitive Linguistics to show that they are part of a process of grammaticalization in the English language. According to Swan (1997: 181), these adverbs are highly mobile and typically placed in initial or, as Swan calls it, *post-subject position* (cf. also Quirk, Greenbaum, Leech & Svartvik 1972: 469). There are two types of subject-modifier adverbs:

- i) those that refer to states or modes of mind, and
- ii) those that denote external characteristics of the subject.

The first type of adverbs denotes the speaker's assumption about the subject, since the speaker does not have access to the mind of the subject, while the second refers to properties that do not have to be presumed by the speaker. In this view, manner adverbs are prototypical adverbs and other related adverb types such as subject-modifier adverbs are less central. For this reason, the expansion of the suffix *-ly* has been considered to be connected to, or caused by, a process of adverbialization by which the morphosyntactic range of *-ly* has increased (Swan 1997: 187). Finally, it could be argued that this phenomenon could just be related to word-class overlap and that subject-modifier adverbs or subject-related adverbs add a new type to the adjective/adverb interface that cannot be classified as *adverbs*, since these have adjectival meaning and perform a predicative function also associated with adjectives (Jiménez-Pareja & Valera 2018).

2.5 Summary

As several classifications have been proposed for the categorization of the lexical units of the English language, there are several views on the classification of adjectives and adverbs. From the OE period, adjectives and adverbs share properties as the expression of the comparative and the superlative degree. However, the distinction of adjectives and adverbs during the early periods in the history of English was possible, among other factors, because adjectives could undergo *i*-umlaut, even if some units, such as adjectives expressing the instrumental case and adverbs derived by *-e* suffixation displayed the same morphology.

In PDE, the classification of adjectives and adverbs ranges between the conventional view where these are separate categories (Quirk, Greenbaum, Leech & Svartvik 1985) and the single-category claim (Giegerich 2012). Adjectives and adverbs have been considered to refer to different syntactic elements so that adjectives characterize the subject, while adverbs modify the rest of elements in the sentences. However, adjectives and adverbs share a number of correspondences that make their separation as two word-classes challenging (Feuillet 1991).

The view of adjectives and adverbs as two categories or categories that mix at a certain point does not satisfy every linguist and some classifications argue for the single-category claim. This claim has been made based on syntactic factors such as the sensitivity of the suffix *-ly* to syntactic position (Sugioka & Lehr 1983) and morphological factors such as the morphological interaction between word-classes, among others (Giegerich 2012). All these studies argue for the classification of *-ly* as an inflectional suffix.

Following these arguments, there are two main parts, namely marked and unmarked units, in the adjective/adverb interface. Regarding the latter, subject-relatedness can have an impact on the classification of adjectives and adverbs since it involves *-ly*-marked units that do not retain any adverbial meaning (Díaz-Negrillo 2014; Valera 2014).

Other properties of adjectives also influence the ability of these words to derive adverbs. It has been shown that stative adjectives are not liable to derive adverbs, since the dynamic interpretation of the resulting *-ly* adverb is blocked by the stative nature of the adjectival base (Kjellmer 1984). This argument is based on several semantic properties that are considered to be key features in the ability of adjectives to take *-ly* suffixation and the capacity of *-ly* derivatives to express adverbial meaning. These properties are CONTROL,

TEMPORARINESS and AGENTIVITY (Dowty 1972; Ljung 1975). Syntactically, it has been argued that stative words are more liable to combine with other stative words, while dynamic words are more liable to combine with other dynamic words (Kjellmer 1984). Therefore, syntactic constraints can take place when *-ly* adverbs are in combination with stative predicates, since only a small group of these adverbs can appear in those combinations (Katz 2008).

One of the main concepts in the classification of adjectives and adverbs is the adjective/adverb interface. English has been considered as a differentiated language and also as a flexible language, but from the explanations of three main different types of adverbs, it has been shown that English is a language where differentiation co-exists with flexibility (Hummel 2014).

3. METHOD

3.1 Introduction

This chapter is devoted to explaining the method used to collect and analyze data containing patterns of verbs and subject-related *-ly* words in OE, ME and PDE as well as the semantic features of non-inherent adjectives that display adverbial meaning.

The chapter is structured as follows: Section 3.2 is a description of corpora and the description of the corpora used for OE, ME and PDE. Section 3.3 describes the method used for the data collection and is divided into two sections:

- i) Section 3.3.1 describes the method used to collect non-inherent adjectives.
- ii) Section 3.3.2 describes the method used to collect subject-related *-ly* adverbs in OE, ME and PDE.

Section 3.4 explains the semantic analysis of the data collected. This section is divided into the semantic analysis of non-inherent adjectives in section 3.4.1 and the semantic analysis of subject-related *-ly* adverbs in section 3.4.2.

3.2 Corpora

Corpora are one of the most useful tools for the study of language for a number of reasons, e.g. they provide examples that are representative of language in action. Corpora have been widely used in various ways too, because they allow users to approach any aspect of language.

Before the digitalization of corpora and, therefore, the availability of computerized corpora, data were collected manually and in paper form to describe the language, as in Harris' (1939) description of Canaanite dialects or Fries's (1952) classification of word-classes.

From that period onwards, corpora have evolved and the creation of computerized corpora has increased by using machine-readable texts that can be annotated and allow reliable, efficient data retrieval for the study of language. There are several properties of digital corpora that can be considered for their description (McEnery & Wilson 2001):

- i) **Corpus size:** Compared to printed corpora, online corpora provide a more extensive collection of texts that can benefit research. However, not every online corpus has millions of words, and the need for extensive corpora depends on the type of research conducted and on its aims: research may use corpora of millions of words (e.g. Davies 2009b; McEnery 2005; Millar 2009), but also smaller, specialized corpora, due to the aims of their research (e.g. Ghadessy & Gao 2001; McEnery & Kifle 2002).
- ii) **Mode of communication:** Corpora may contain written or spoken language, or both. There are also video corpora used to record paralinguistic features such as gestures (Knight, Evans, Carter & Adolphs 2009) or sign language (Crasborn 2008; Johnston & Schembri 2010).
- iii) **Data collection regimes:** Two main data collection regimes have been established depending on the capacity of expansion of the corpus. Monitor corpora are dynamic and grow in size, whereas sample corpora remain static and no new data is added (Sinclair 1991; Biber 1993; Leech 2007). Two of the most representative monitor corpora are the *Bank of English* (hereafter, BoE) and the COCA. However, there is a key difference between these corpora, namely while the BoE presents limitations in keeping a balance in the text genre, every new addition to the COCA keeps this balance, so that the number of texts under every genre occupies the same size in the corpus. It has also been argued that the web can be used as a corpus (Kilgarriff & Grefenstette 2003). Nevertheless, the lack of genre division, the existence of errors (McEnery & Wilson 2001) and the lack of orientation towards language research (Davies 2011) can be considered limitations of the web as corpus.
- iv) **Annotation:** Corpus annotation is a procedure by which information about the elements of a corpus is added. Therefore, annotated corpora include metadata for the analysis of variables, while non-annotated corpora do not contain this information.

Several properties of corpora can be considered when a corpus has to be chosen to carry out research. The most desirable variables for a corpus are balance, representativeness, and comparability, so that the elements within the corpus sample are equally organized, represent the language used in the ‘real world’ and can be compared with data from different sources or from the same corpus. Of these variables, balance and representativeness may not be perceived as attainable variables for every corpus (McEnery & Wilson 2001), because these are gradable measures (Váradi 2001), but every corpus can be considered representative or balanced for specific research purposes. Thus, the corpus choice has to be made according to the properties that best match the needs and aims of every research.

3.2.1. Synchronic corpora

This section briefly reviews the synchronic corpora used to approach the subject of this thesis, i.e. subject-relatedness, and justify the selection of the corpora, namely the BNC and COCA.

3.2.1.1 The British National Corpus

The BNC is a large sample corpus of British English. It is a 100 million words collection of samples of written and spoken language from the 1970s to the early 1990s. The written part of the corpus, which comprises 90% of the sample, is composed of extracts of newspaper, journal and specialist periodicals, school and university essays, academic books and popular fiction, among other texts. The spoken part of the corpus, i.e. the remaining 10% of the sample, consists of transcripts of informal conversations and spoken language from various environments such as formal business, government meetings, or radio shows.

There is a wide range of genres, namely spoken, fiction, magazines, newspapers, and academic under which the sample is annotated. The texts in the corpus are also annotated according to part of speech and other structural properties such as headings, paragraphs or lists, to allow identification of features in the sample, by use of a query syntax where the tag for every part of speech and the tools to combine or exclude elements are specified. The search engine of the BNC allows searches by individual words, combinations of general parts of speech or specific combinations, collocations, compared words, etc., in various frequency ranges. Once the search is done, the corpus provides a list of examples with metadata of every example, such as date, register, title of the text, and expanded text, and gives the option to translate or analyze the text.

3.2.1.2 The Corpus of Contemporary American English

The COCA is claimed to be the largest and most genre-balanced monitor corpus of any language. It is a monitor corpus suitable to study language change, and ensures that the language and changes in the corpus are the changes and language in the 'real world' or in 'real language' (Davies 2011). This corpus contains written and spoken samples of language, all text genres are evenly included and there are no differences in the size of genre representation over the total size of the corpus. Thus, the genres in the corpus, namely spoken, fiction, popular magazine, newspapers and academic journal are divided almost equally and each genre amounts to 20% of the whole sample of texts. The COCA interface allows the search for the same features as the BNC's, except that, in the metadata obtained for every example, the COCA corpus provides more complete information about the source of the concordances.

3.2.1.3 Justification

One of the main differences between both corpora and one of the limitations of the BNC is the date of the texts in the sample and the updating of the data sample. While the sample from the BNC was added until 1994 with no texts being added since that date, the COCA sample has been expanded by adding new texts every year. Besides, the BNC sample presents a large contrast in the percentage of written vs. spoken language, but the COCA sample is balanced as regards text genre. These features could be considered limitations, mainly in the BNC, for some studies of language such as those that aim to compare the productivity or the use of certain linguistic features after the 1990s or for a contrastive study between British and American English, because data can only be compared or analyzed until the 1990s.

The above limitations were not an obstacle for the research presented in this thesis, as the aim of this thesis is to identify subject-relatedness and analyze the examples obtained regardless of date. Despite this limitation, the BNC and COCA are the most extensive and representative corpora of British and American English respectively, and their interfaces allow the search for general combinations of different parts of speech, which make possible the retrieval of patterns of verbs and *-ly* words annotated as adverbs. The metadata provided for every example can be useful for the analysis of the results, as subject-relatedness is largely unexplored. Unlike other corpora, such as *The Scottish Corpus of Texts and Speech* or *the British Academic Written English*, the BNC and COCA focus on language spoken nationally and provide a wider variety of genres in their samples. The use of the BNC and the COCA is also a

better option, even if the use of the web as a corpus is considered because the search engines available online are not oriented towards linguistic uses and users can only search for specific words or phrases

3.2.2 Diachronic corpora

Data collection from OE and ME is obstructed by rather limited access to material of those periods. Online dictionaries and historical thesauri offer the possibility to obtain examples from OE and ME, and thus contribute to the study of language in those periods. This section aims to describe the resources used to study subject-relatedness in OE and ME.

3.2.2.1 Dictionary of Old English Web Corpus

The *Dictionary of Old English Web Corpus*, hereafter DOE Web Corpus, is an online dictionary released in 2018 that represents the language used during the period from c. 600 to c. 1150 which covers the majority of the OE period. This database consists of at least one copy of the surviving OE texts and, where needed due to dialect or date, more than one copy is available. The dictionary has published ten of the twenty-two letters of the alphabet, so it represents three million words of OE and over a million words of Latin. The texts included in this database, classified as prose, poetry, interlinear glosses, glossaries, runic inscriptions and inscriptions in the Latin alphabet, come from texts written on parchment, carved in stone, and inscribed in jewelry. The sample in the category prose presents a particularly wide range of texts such as saints' lives, sermons, biblical translations, laws, chronicles, and medical texts, among others. The corpus provides grammatical information, parsed lists of all attested spellings, and sense divisions supported by illustrative citations for each word.

The search engine of the DOE Web Corpus allows retrieval of headwords, definitions, occurrence, or cross reference, among other possibilities. The search for specific words provides information such as word-class, number of occurrences, inflectional forms, examples in contexts classified according to the sense of the word, and bibliographical information.

3.2.2.2 Middle English Dictionary

The *Corpus of Middle English Prose and Verse*, hereafter CMEPV, is complemented by the DOE Web Corpus, in that the period covered by the CMEPV, from c. 1175 to c. 1500, follows the period covered by the DOE Web Corpus. The CMEPV consists of a collection of about 300 Middle English primary texts of a range of genres, times, and places. Even if this database

covers a historical period, the entries are not arranged according to the date of the senses: they are presented from concrete to figurative sense, and from simple to extended sense. The collection of the CMEPV includes a variety of texts such as biblical texts, chronicles, and saints' legends. Some of these texts come from canonical works such as the Wycliffite Bible or Chaucer Society single-manuscript transcripts, others come from smaller texts of recipes, proverbs, sermons, or inventories among others. The dictionary provides bibliographical details about the sources of the examples, e.g. manuscript dates.

The search engine of this dictionary, which is publicly accessible, allows simple searches, proximity searches, Boolean searches, and citation searches. The information about a word provided by the dictionary is the form and the etymology, the definition, including senses and subsenses, and associated quotations that include bibliographical information about the source of the example.

3.2.2.3 The Historical Thesaurus of English

The *Historical Thesaurus of English* contains almost every word of the English language produced from OE to PDE. This thesaurus is one of the main tools for the study of the use of words in previous periods of English as well as the relationship between the matters and ideas people talked or wrote about in the past, and the language used. This is a reliable source for diachronic studies, since it is based on the analysis of English provided by the *Oxford English Dictionary* (hereafter, OED), and *A Thesaurus of Old English*. Thus, the main source of data for the first edition of this thesaurus was the second edition of the OED, and the in-progress edition of this thesaurus considers data from the third edition of the OED. The sample of OE data was increased by the addition of recorded vocabulary of OE words using an initial list of words from Clark Hall's (1894) *A Concise Anglo-Saxon Dictionary* and complementing it with the fuller exemplification of senses from Bosworth & Toller's (1882) *An Anglo-Saxon Dictionary*.

The *Historical Thesaurus* is arranged as a well-structured hierarchy of semantic categories containing over a quarter of a million concepts. Categories are related, so a category can be included in another one in order to establish relations between concepts, and every concept contains a number of subcategories. The main divisions of the thesaurus are *External World*, *Mental World*, and *Social World*. These categories are divided into 377 further categories that are in turn divided into a hierarchy of minor categories. This categorization allows a comprehensive semantic analysis of English.

This thesaurus provides two tools by which the user can browse the data or can search for individual lexical items. The first tool, *browse*, allows to identify the parts of speech in every category of the thesaurus from the three main categories to all the subcategories. The second tool, *search*, can be used to search for individual lexical items. It gives the possibility of narrowing the search by part of speech, category of the word, label, and years when the word was used.

3.2.2.4 Justification

For the study of subject-relatedness, several corpora were considered: the DOE Web Corpus, the CMEPV, and the *Helsinki Corpus of English Texts: Diachronic and Dialectal*. The *Helsinki Corpus* is a well-designed and well-structured corpus of representative texts of the language used from c. 750 to c. 1700, i.e. covering text record from OE through ME to EModE. It also contains transcriptions of dialects from the 1970s. The OE section of this corpus is based on material from the DOE, but it covers a shorter period of time since the DOE Web Corpus provides data from c. 600 and the Helsinki Corpus starts from c. 750. While the Helsinki Corpus is one of the best tools for the study of the evolution of language and language variation, it has disadvantages for the study of subject-relatedness compared with the DOE Web Corpus or the CMEPV. The dialectal part of the corpus was not necessary for this research since its main purpose was to identify subject-relatedness in OE and ME without focus on dialectal uses. However, the main reason to use the DOE Web Corpus and the CMEPV was the information about a word that they provide, and the length of the sample in every corpus: The DOE Web Corpus and the CMEPV supply various forms of words and examples classified according to senses words, but the Helsinki Corpus returns a list of texts where the information provided is mainly concerned with information about the texts and no grammatical or syntactic information is included. Besides, the *Helsinki Corpus* contains fewer texts, because it only provides a selection of representative OE and ME texts.

3.3 Data collection

This section presents the stages used to collect the data used in this thesis. The data collection process is divided into two parts:

- i) The first part, section 3.2.1, describes data collection for synchronic data of non-inherent adjectives.
- ii) The second part, section 3.2.2, describes the process used to collect synchronic and diachronic data of subject-relatedness.

3.3.1 Non-inherent adjectives

According to the literature, some adjectives can perform adverbial functions, and some adverbs can perform predicative functions (see §2.4.3) that are not typically associated with their grammatical categories. The question is whether the suffix *-ly* has any value in the ability of adjectives and adverbs to express adverbial and predicative meaning, respectively. In order to be able to shed light on this issue, it was necessary to focus on non-inherent adjectives that have adverbial meaning, because these adjectives do not need to take *-ly* suffixation to express adverbial meaning. Data collection aimed to identify combinations of the aforementioned non-inherent adjectives.

As the word-class *adjective* is composed of a huge number of members with different morphological properties due to the ability of this word-class to derive using a variety of suffixes, the search for adjectives posed difficulties. The search syntax *[j*] [nn*]* used to retrieve any adjective preceding any noun returned no results, because the lists were excessively long. Generic lists of adjectives preceding nouns provide very common combinations that do not usually contain non-inherent adjectives, because the latter's use has a lower frequency. Thus, it was necessary to sample the adjectives that display non-inherent senses from the preceding literature and collect the data as follows:

- i) The analysis of non-inherent adjectives in previous research has shown that the majority of these adjectives are morphologically unmarked, i.e. no suffixes are involved in the derivation of these adjectives (Pavličková 2014). Based on this finding, the first step was to collect morphologically unmarked non-inherent adjectives displaying adverbial senses, such as intensification, from specific literature¹⁰. These are adjectives that have been classified as peripheral adjectives displaying adverbial meaning, but whose behavior in the noun phrase has not been described, so the reasons why these adjectives do not characterize the noun remain unexplored (see section 2.4.3.1).
- ii) Every adjective was then searched for, in combination with any noun by using the search syntax *[__] [nn*]*, where the first gap was completed with a non-inherent adjective, as in *[rural] [nn*]*, *[spectacular] [nn*]* or *[potential] [nn*]*. These queries returned lists

¹⁰ These adjectives were extracted from the examples of non-inherent adjectives with adverbial meaning listed in Levi (1979) and Quirk, Greenbaum, Leech & Svartvik (1985).

of bigrams of a wide range of frequencies of occurrence, but all the list achieved low frequency of occurrence, including frequency 1. These search queries were used in the BNC and the COCA and returned 50,737 concordances in both corpora. Due to the limitations of the corpus, it was not possible to obtain list of bigrams containing more than 5,000 concordances. The number of concordances obtained for every list in frequency 1 can be seen in Table 7 below.

- iii) The literature also argues that suffixes such as *-al*, *-y*, *-ous*, or *-ful* are more frequent in the creation of non-inherent adjectives (Pavličková 2014). Therefore, the next step in the retrieval of non-inherent adjectives was to search for adjectives ending in suffixes used to derive adjectives from nouns preceding a noun¹¹. For this purpose, fifteen lists containing denominal adjectives and nouns were retrieved from the BNC and COCA using the tag **____. [jj] [nn*]*, where the gap was filled with the suffix, as in the tags **ese. [jj] [nn*]*, **ous. [jj] [nn*]*, or **ful. [jj] [nn*]*. The tags returned lists of various lengths containing examples of various frequencies; thus, the last 100 examples of every list were analyzed amounting to a total of 3,000 examples.

¹¹ The reason for the use of suffixes that derive adjectives from nouns is that most of the non-inherent adjectives noted in the literature are denominal.

Table 7. Search syntax used for collection of non-inherent adjectives and number of concordances obtained and analyzed

Search syntax	Concordances BNC	Concordances COCA
<i>[spectacular] [nn*]</i>	475	1,401
<i>[rural] [nn*]</i>	482	1,369
<i>[perfect] [nn*]</i>	800	1,840
<i>[old] [nn*]</i>	1,970	1,000
<i>[original] [nn*]</i>	1,544	1,544
<i>[complete] [nn*]</i>	1,318	1,060
<i>[potential] [nn*]</i>	973	1,480
<i>[provincial] [nn*]</i>	287	661
<i>[firm] [nn*]</i>	631	2,233
<i>[atrocious] [nn*]</i>	39	242
<i>[true] [nn*]</i>	1,158	1,518
<i>[plain] [nn*]</i>	398	1,702
<i>[clear] [nn*]</i>	908	2,415
<i>[simple] [nn*]</i>	1,847	1,438
<i>[outright] [nn*]</i>	120	789
<i>[total] [nn*]</i>	990	1,375
<i>[close] [nn*]</i>	396	2,738
<i>[absolute] [nn*]</i>	481	1,678
<i>[extreme] [nn*]</i>	500	2,049
<i>[definite] [nn*]</i>	326	820
<i>[utter] [nn*]</i>	180	778
<i>[great] [nn*]</i>	1,059	1,000
<i>[strong] [nn*]</i>	1,716	1,000
Total	18,598	32,139

Table 8. Search syntax used for collection of non-inherent adjectives and number of concordances obtained and analyzed

Search Syntax	Concordances BNC	Concordances COCA
ese.[jj] [nn]	100	100
ous.[jj] [nn]	100	100
al.[jj] [nn]	100	100
ly.[jj] [nn]	100	100
ic.[jj] [nn]	100	100
esque.[jj] [nn]	100	100
like.[jj] [nn]	100	100
y.[jj] [nn]	100	100
an.[jj] [nn]	100	100
ist.[jj] [nn]	100	100
ite.[jj] [nn]	100	100
ed.[jj] [nn]	100	100
ful.[jj] [nn]	100	100
ish.[jj] [nn]	100	100
less.[jj] [nn]	100	100
Total	1,500	1,500

3.3.2 Subject-relatedness

3.3.2.1 Synchronic data

Previous research has identified subject-relatedness in a specific semantic class of adjectives, namely color adjectives (Valera 2014). Based on this, the first step for this thesis was to identify subject-relatedness outside this semantic class. For this purpose, the search for subject-related *-ly* words was carried out in the BNC as follows:

- i) As the most prototypical syntactic position of manner adverbs and subject-oriented adverbs is postverbal position, combinations of *-ly* words tagged as adverbs and preceded by verbs were searched for. The first two tags used for this search were **ly_AJ*, and **ly*, which entailed manual deletion of *-ly* words in the bigrams obtained with adjectives such as *lovely* and *daily*. The second tag used was *[v*] *ly.[R]* in which *[v*]* refers to any verb in any tense and **ly.[R]* refers to every word ending in *-ly* annotated as an adverb. This tag returned

7,200 bigrams in which a verb is followed by an *-ly* adverb, and the frequency of occurrence of the bigrams rose to 6¹².



Figure 3. A screenshot of the results obtained using the query syntax $[v^*] *ly.[R]$ in the BNC

The corpus did not allow retrieval of a higher number of examples, as when a higher number of hits is indicated, the query is cancelled. Therefore, a list of 7,200 bigrams was used for the identification of subject-relatedness outside color adjectives. During the analysis of these bigrams, the concordances containing the verbs *to be*, *to have*, modal verbs, and adverbs that express intensification were excluded, because these verbs and adverbs are part of complex structures such as *is generally coming* or *it couldn't really be*. This list was also reduced by excluding the adverb phrases that perform the function of premodifier in an adjective phrase.

- ii) After selection of all the relevant bigrams from the initial list, as the examples retrieved as above show that a considerable number of relevant cases occur combined with verbs in the past simple (e.g. *thought wearily* and *stared blindly*, obtained from the initial list of 7,200 bigrams), bigrams containing any verb in the past simple followed by any adverb ending in *-ly* were searched for. The query syntax used for this analysis was $[vvd^*] *ly.[R]$, and it provided a list of 7,000 bigrams with frequency ranges from 15 to 2.

¹² Figures 3, 4, 5, and 6 give the results obtained from the BNC, but are also representative of the results obtained from COCA, as both corpora use the same tagset.

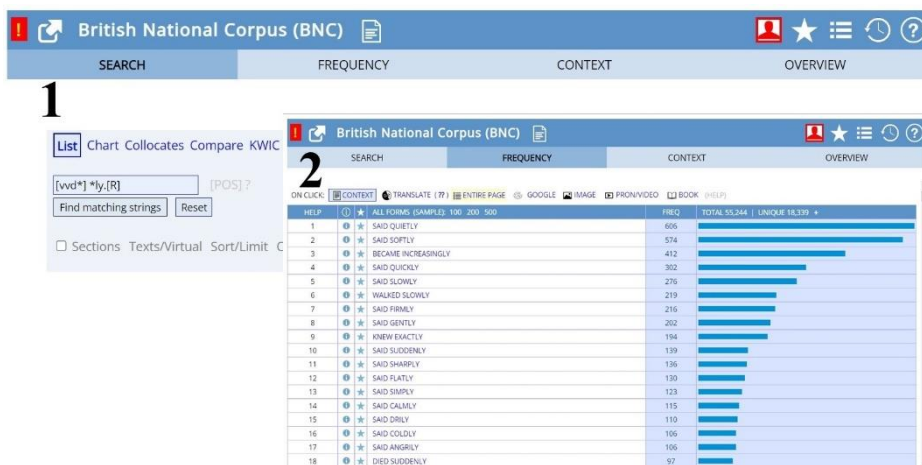


Figure 4. A screenshot of results obtained using the query syntax *[vvd*] *ly.[R]* in the BNC

Like with the first search, the corpus did not allow retrieval of more than 7000 examples, so the list obtained went up to verbs starting with the letter ‘w’ and with a frequency of occurrence 2. Therefore, in the first steps of this data collection, 14,200 bigrams, with a frequency of occurrence up to 2, were analyzed and a total of 14 examples displaying subject-relatedness outside color adjectives were obtained.

- iii) After identification of subject-relatedness outside color adjectives and in several frequency ranges, the following step aimed to explore frequencies of occurrence lower than frequency 2 in the BNC and COCA, for a wider semantic range and current productivity (Baayen & Lieber 1991; Pierrehumbert & Granell 2018). It has been argued that a morpheme found in many different combinations is more liable to enter novel combinations (Jurafsky & Martin 2000). However, the hapax legomena, i.e. the combinations or morphemes that only appear once in a corpus, are a better predictor for the productivity of a given morpheme (Baayen & Lieber 1991; Baayen & Renouf, 1996; Pierrehumbert & Granell 2018). Previous research (Jiménez-Pareja 2017) also shows that the bigrams found in higher frequency ranges have a narrow semantic range. The subject-related *-ly* words found in combination with stance verbs such as *stood stiffly* and *sat stiffly* share the same *-ly* word and, in combination where the verb is stative such as *wondered idly* or *wondered irritably*, the same verb is combined with different *-ly* words. In order to reach the bigrams in frequency 1, the first step was to discard the verbs *be* and *have* from the list returned by the corpus. For compilation of this list, the same tag used in previous searches,

namely *[vvd*] *ly.[R]*, was modified with Boolean operators. Thus, the tags used were *[vvd*] *ly.[R] (!) be**, *[vvd*] *ly.[R] (!) have** and *[vvd*] *ly.[R] | be**, but these tags were unsuccessful. The corpus did not provide any lists of bigrams using the previous tags or any variant of these.

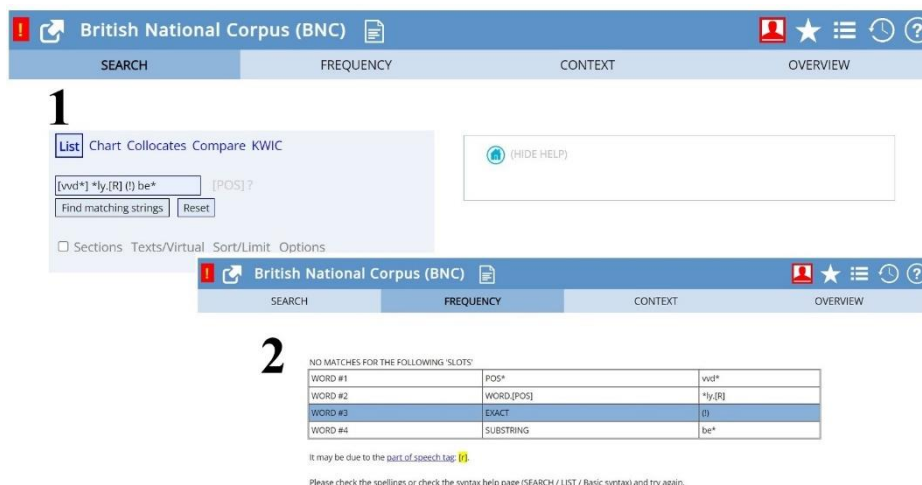


Figure 5. A screenshot of information returned by the corpus using the query syntax *[vvd*] *ly.[R] (!) be**, *[vvd*] *ly.[R] (!) have** and *[vvd*] *ly.[R] | be** in the BNC

Considering the limitations of the corpora and the lack of relevant results using the previous queries, the next query used was *[vvd*] *ly.[R]* through the alphabet to retrieve the highest possible number of bigrams in frequency 1¹³. Consequently, the search syntax used for these searches were *a*.[vvd*] *ly.[R]*, *b*.[vvd*] *ly.[R]*, *c*.[vvd*] *ly.[R]*, etc. until completion of the alphabet. Each syntax query yielded lists of various lengths containing all the bigrams in frequency 1. The total number of bigrams retrieved and analyzed was 17,460 in all the BNC lists and 34,743 in the COCA.

¹³ This methodological question was submitted to Mark Davies after consultation of previous search syntax for this research topic, i.e., the previous steps followed, the tags used and the problems retrieving the bigrams in frequency 1. Considering the limitations of the corpus interface, his advice (Davies 2022 pers. comm.) was to break the tag into blocks, i.e. search for verbs starting with *a-*, then *b-*, etc.



Figure 6. A screenshot of results obtained using the query syntax *a*[vvd*] *ly.[R]*, *b*[vvd*] *ly.[R]*, *c*[vvd*] *ly.[R]*, etc. until completion of the alphabet where frequency 1 was reached

The length of the lists containing concordances in frequency 1 obtained in every corpus varied according to each letter, as shown in Table 9 below. The search syntax used to retrieve concordances is given in column 1 and the number of concordances in frequency 1 analyzed in the BNC and COCA are given in columns 2 and 3, respectively.

Table 9. List of tags used for retrieval of bigrams in frequency 1 and length of every list in the BNC and COCA

Search syntax	Concordances BNC	Concordances COCA
<i>a*.[vvd*] *ly.[R]</i>	1,257	2,391
<i>b*.[vvd*] *ly.[R]</i>	856	2,057
<i>c*.[vvd*] *ly.[R]</i>	1,604	3,706
<i>d*.[vvd*] *ly.[R]</i>	1,027	2,398
<i>e*.[vvd*] *ly.[R]</i>	568	1,564
<i>f*.[vvd*] *ly.[R]</i>	859	2,073
<i>g*.[vvd*] *ly.[R]</i>	685	1,513
<i>h*.[vvd*] *ly.[R]</i>	329	952
<i>i*.[vvd*] *ly.[R]</i>	360	1,080
<i>j*.[vvd*] *ly.[R]</i>	90	212
<i>k*.[vvd*] *ly.[R]</i>	101	274
<i>l*.[vvd*] *ly.[R]</i>	792	1,743
<i>m*.[vvd*] *ly.[R]</i>	656	1,406
<i>n*.[vvd*] *ly.[R]</i>	206	447
<i>o*.[vvd*] *ly.[R]</i>	304	624
<i>p*.[vvd*] *ly.[R]</i>	1,054	2,668
<i>q*.[vvd*] *ly.[R]</i>	101	156
<i>r*.[vvd*] *ly.[R]</i>	1,559	3,387
<i>s*.[vvd*] *ly.[R]</i>	3,079	1,365
<i>t*.[vvd*] *ly.[R]</i>	817	2,030
<i>u*.[vvd*] *ly.[R]</i>	120	361
<i>v*.[vvd*] *ly.[R]</i>	105	303
<i>w*.[vvd*] *ly.[R]</i>	867	1,899
<i>x*.[vvd*] *ly.[R]</i>	0	1
<i>y*.[vvd*] *ly.[R]</i>	39	115
<i>z*.[vvd*] *ly.[R]</i>	4	18
Total	17,439	34,743

3.3.2.2 Diachronic data

The diachronic sample was compiled after the synchronic sample. Once the synchronic sample was retrieved and analyzed, there were no adverbs that seemed to be more liable to display subject-relatedness than others. Thus, the diachronic sample was retrieved as follows:

- i) The first step was to search for adverbs in the A-I entries of the DOE. The reason why only the A-I entries of the DOE were used for the data collection is that these were the only entries available during the OE data collection period. The corpus provided a list of adverbs and

lists with the meanings of the adverbs and examples were also provided for every entry of an adverb. The instances for every adverb were analyzed manually for subject-relatedness. For this part of the sample, only adverbs suffixed in *-e* and *-lice* were considered, excluding adverbs recorded only in glosses and adverbs whose meaning can be spurious in a given context¹⁴. The relevant examples were then extracted from the corpus and checked against the evidence of the *Dictionary of Old English Corpus* (DOEC).

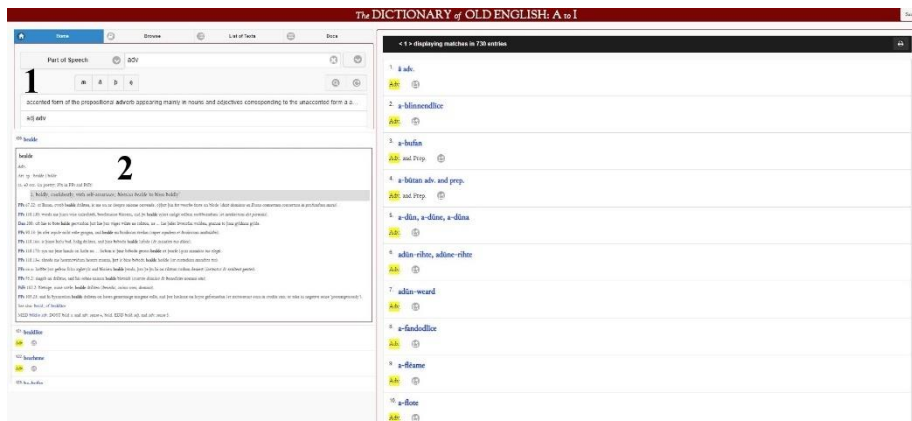


Figure 7. A screenshot of the list of adverbs obtained in the A-I entries of the DOE and examples of the information provided in the entries

- ii) The following step was to compare the OE sample to the respective adverbial entries in the *Middle English Dictionary* (hereafter, MED) and occurrences of these adverbs in the CMEPV. All the examples displaying subject-relatedness were added to the list of examples from the DOE for further analysis.

¹⁴ Lexicalized secondary adverbs based on oblique nominal cases and adverbs with suffixless forms in OE were discarded.

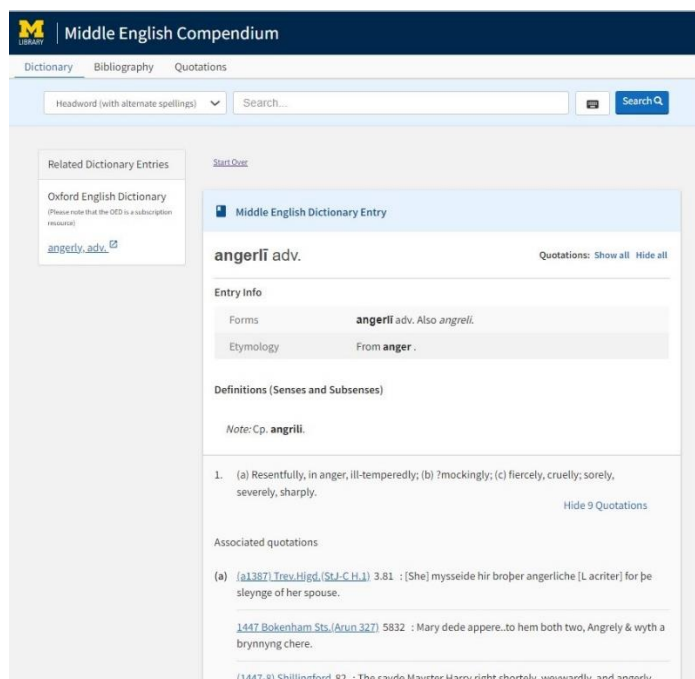


Figure 8. A screenshot of an example of the information obtained for the analysis of ME adverbs

- iii) The last step was to look into the *Historical Thesaurus of English* for diachronic counterparts of the synchronic subject-related adverbs. These counterparts were subsequently checked against the evidence of the DOE and MED, for a semantically and morphologically wider range of examples.

The use of diachronic corpora for the study of linguistic issues presents well-known limitations such as the chronologically uneven distribution of data, lacunae in the register representation in OE and ME, incomplete coverage of the MED material by the CMEPV, and lack of tagging. In addition to this, data interpretation during data collection was also challenging, e.g. as regards the interpretation of the blurred formal and functional boundary between adjectives and adverbs in ME. Therefore, for the interpretation of the data, the categorization proposed by the DOE for OE and by the MED for ME was followed.¹⁵

During the data collection process, the total number of concordances analyzed for non-inherent adjectives and subject-relatedness in PDE was

¹⁵ The categorization by DOE and MED was used, aware that, in fuzzy examples, the DOE favors adjectival interpretation.

53,737 and 52,182 concordances, respectively. Of the examples analyzed for non-inherent adjectives, a total of 213 examples were classified as non-inherent adjectives and used for the semantic analysis and classification of these adjectives. Of the examples analyzed for subject-relatedness in PDE, a total of 515 examples were classified as cases of subject-relatedness and used for the semantic analysis of these units. Regarding the diachronic corpora used for subject-relatedness, the total number of concordances analyzed cannot be quantified because diachronic corpora do not provide the information in the same way as synchronic ones. However, of the examples analyzed for OE and ME, a total of 51 examples in OE and 38 examples in ME were classified as cases of subject-relatedness. Thus, the number of cases of subject-relatedness in both periods amounts to 89 cases that were used in the semantic analysis of subject-relatedness.

3.4 Data Analysis

3.4.1 Non-inherent adjectives

The initial part of the analysis of non-inherent adjectives was developed during the data collection process. The tools to identify non-inherent adjectives were the use of paraphrases and the use of the dictionary.

In the literature, paraphrases have been used to show the syntactic structure from which a non-inherent adjective can be traced back (Levi 1978, Quirk, Greenbaum, Leech & Svartvik 1985). The paraphrases used to check the adverbial meaning of adjectives included in this research vary according to the adverbial meaning that was tested and can be classified as follows:

- i) The adverbial meanings PLACE and TIME LOCATION were tested by paraphrases such as _____ *from/in* _____, where the first gap is filled by the noun in the example and the second gap with the location expressed by the adjective. Hence, examples such as *British hospital* or *rural poverty* were paraphrased as *a hospital in England* and *poverty in rural areas*, respectively.
- ii) The adverbial meanings DEGREE and MODALITY were tested by the paraphrase *someone/something who/that is [adv] [NP]*, so the part of [adv] was filled with the corresponding adverbial form of the adjective in the example and the [NP] was the noun in the example preceded by an article. Therefore, examples such as *firm friend* or *true emergency* were paraphrased as *someone who is firmly a friend* and *something that is truly an emergency*, respectively.

- iii) The adverbial meaning PROCESS was tested by the paraphrase *someone/something who/that [v] [adv]*, where the [v] was retrieved from the noun in the example and the [adv] used was the adverbial form of the adjective in the example. In this way, examples such as *spectacular death* were paraphrased as *someone who died spectacularly*.

Examples of the paraphrases applied to complete examples from the dataset in adjectives expressing intensification and manner, i.e. the main focus of this thesis, are shown in (38) and (39) below. These examples show the limitations of the non-inherent adjectives to express predicative meaning and their ability to express adverbial meaning.

- (38) ‘Some, including Mr Townsend himself, would give it an **absolute priority**.’

Predicative > *[the priority is absolute]

Adverbial > [it is absolutely a priority]

- (39) ‘Gary Triano’s **spectacular death** by car bomb in 1996 shook that perception – for a while.’

Predicative > *[the death is spectacular]

Adverbial > [it is a death in a spectacular way // He died in a spectacular way]

The meaning of adjectives was searched for in the OED and applied to the examples where the adjective appears to check the adverbial interpretation of the example and discard the predicative one. This double-check was based on research showing how some descriptive meanings of adjectives lead to non-inherent uses and some lead to inherent uses (Ghesquière & Davidse 2011: 263).

The relevant combinations of non-inherent adjectives and nouns retrieved during data collection were then semantically analyzed for semantic features of both components in the phrase.

- i) Since the adjectives in these combinations express adverbial meaning, these were classified according to the semantic role of adverbs. The semantic categories used were:
- a. PROCESS for adjectives expressing manner,
 - b. DEGREE for adjectives expressing intensification,
 - c. TIME for adjectives expressing time location,

- d. SPACE for adjectives referring to space position, and
 - e. MODALITY for adjectives denoting emphasis.
- ii) Nouns were classified according to noun classes, namely COUNT, NONCOUNT, CONCRETE, ABSTRACT, and also according to the semantic properties ANIMATE and INANIMATE. Considering that some nouns can have dual class membership (Quirk, Greenbaum, Leech & Svartvik 1985), i.e. they belong to two noun classes as for instance COUNT and NON-COUNT according to the meaning of the word use in the sentence, nouns were classified as one class or the other depending on their meaning in the example. Therefore, nouns such as *experience* were classified as COUNT when it means ‘something lived’ and as NON-COUNT when it means ‘knowledge gained from what is lived’.

Table 10. Template for the semantic analysis of non-inherent adjectives

				Non-Inherent Adjectives				
	Adjectives					Nouns		
Example	PROCESS	DEGREE	TIME	SPACE	MODALITY	COUNT/NONCOUNT	ANIMATE	CONCRETE/ABSTRACT
<i>Spectacular success</i>		1				NONCOUNT	INANIM	ABSTRACT
<i>Spectacular failure</i>		1				NONCOUNT	INANIM	ABSTRACT
<i>Spectacular rise</i>		1				NONCOUNT	INANIM	ABSTRACT

3.4.2 Subject-relatedness

The examples of subject-relatedness obtained during data collection in all the periods of the English language, namely OE, ME and PDE, were analyzed in various regards. The combinations of verbs and *-ly* words were analyzed semantically in order to identify the properties of several clause constituents in the examples, and adjectives were also classified according to their semantic type and other semantic features. This section is structured as follows: The semantic analysis of the examples is provided in 3.3.2.1, and the classification of adjectives is presented in 3.3.2.2.

3.4.2.1 Semantic analysis

The initial part of the semantic analysis was carried out during data collection when the bigrams were analyzed for subject-relatedness.

The first feature to consider in the identification of subject-relatedness was the compatibility between the *-ly* word and the verb, i.e. whether the *-ly* word expressed manner and, consequently, referred to the verb, or not. For this purpose, the paraphrase used was *in a _____ way*.¹⁶ The gap in the paraphrase was filled with the adjectival bases of the adverb in the example so, if the example was *smiled toothlessly*, the paraphrase was *smiled in a toothless way*. In examples where the paraphrase was not fully acceptable, the bigram was deemed relevant as an example of subject-relatedness. In addition to this paraphrase and to avoid the possibility of adverbial interpretation, the paraphrase *with _____* was also used to further check the adverbial interpretation. The gap in this paraphrase was filled with the corresponding noun of the adjectival bases, as in *She hoped guiltily*, where the paraphrase was, *she hoped with guilt*. Examples allowing this interpretation were excluded from the data for not displaying subject-relatedness.

The second feature to consider in the identification of subject-relatedness was the compatibility between the subject and the *-ly* word. The paraphrases used to check this compatibility were *Subject + verb + being + base adjective* and *Subject + verb + base adjective*. The first paraphrase indicated whether there was a relation between the subject and the adjectival base of the *-ly* word. The second paraphrase indicated the possibility of replacing the *-ly* word with its adjectival bases without changes in the meaning of the sentence. Thus, if the examples were, *She decided angrily* and *She remained thoughtfully*, the paraphrases were *She decided being angry* and *she*

¹⁶ The paraphrases used in this research are based on the ones used in previous research by Valera (2014) for similar cases.

remained thoughtful. If these paraphrases were possible, the examples were classified as cases of subject-relatedness. Examples of the paraphrases used to classify the bigrams retrieved as cases of subject-relatedness can be seen in (40), (41), (42), (43) below. Examples (40)-(42) show subject-relatedness where only the predicative interpretation indicated by the paraphrases is possible. Conversely, example (39) is subject-orientation, because the predicative and adverbial interpretation of the *-ly* word is possible. While (40)-(42) are relevant for this research, (43) was discarded.¹⁷

- (40) Mr Berkley slipped into the Palladium by a side-e-it, and **burrowed gratefully**.
 Adverbial > *[Mr Berkley slipped into the Palladium by a side-e-it, and burrowed in a grateful way]
 Predicative > [Mr Berkley slipped into the Palladium by a side-e-it, and burrowed [being] grateful]
- (41) FitzAlan slept on, she **noticed thankfully**.
 Adverbial > *[FitzAlan slept on, she noticed in a thankful way]
 Predicative > [FitzAlan slept on, she noticed [being] thankful]
- (42) The sea **crept wetly** around their sneakers, slurping at the dry land
 Adverbial > *[The sea crept in a wet way around their sneakers]
 Predicative > [The sea crept [being] wet around their sneakers]
- (43) Thomas L. Hopkins, director of the Virginia Department of Environmental Quality, **argued angrily** in a letter in August to the E.P.A.'s regional administrator
 Adverbial > [Thomas L. Hopkins, director of the Virginia Department of Environmental Quality, argued in an angry way in a letter

¹⁷ To be on the safe side, examples such as *admitted criminally damaging the telephone*, *he brushed blindly at the front of his jacket*, and *they felt kindly towards him* were excluded from the data because the reference is to the verb after the *-ly* word, the meaning of the *-ly* word is metaphoric, or they can be considered subject-oriented, respectively.

		in August to the E.P.A.' s regional administrator]
Predicative	>	[Thomas L. Hopkins, director of the Virginia Department of Environmental Quality, argued [being] angry in a letter in August to the E.P.A.' s regional administrator]

After selection of bigrams displaying subject-relatedness, the examples were analyzed semantically for the semantic properties of the clause constituents and for semantic patterns behind the relation between the *-ly* word and the nominal element of the sentence it refers to. The properties analyzed are illustrated in Table 11, where the first column of the table contains the example, and the second and third columns indicate whether the adverbial and the predicative interpretations are possible. Several semantic features of the subject in the example as well as the semantic role of every subject are illustrated from columns four to seven. Columns eight and nine indicate the type of verb, namely stative, dynamic, stance or copulative, and the semantic process associated with the verb. Column ten indicates whether the adjective is stative or dynamic. Finally, the last column shows the register under which the example is classified in the corpus.

Table 11. Template for the semantic analysis of clause constituents

	Interpretation		Semantic features						
							Predicate		Adjective
Examples	Predicative	Adverbial	CONCRETE	ANIMATE	HUMAN	Semantic Role	STATIVE/ DYNAMIC	PROCESS	STATIVE/ DYNAMIC
<i>soldiers gathered sleepily</i>	1	1	C	A	H	AG	D	MAT	S
<i>I walked quickly</i>		1	C	A	H	AG	STANCE - D	MAT	D
<i>she accelerated thankfully</i>	1		C	A	H	AG	D	MAT	S
<i>Their shotguns aimed hungrily</i>	1		C	A	NH	AG	D	MAT	S
<i>Corbett asked disappointedly</i>	1		C	A	H	SAY	D	VER	S
<i>She asked colourlessly</i>	1		C	A	H	SAY	D	VER	S
<i>[Mr Berkley] burrowed gratefully</i>	1		C	A	H	AG	D	MAT	S

The classification of verbs and adjectives as [STATIVE] or [DYNAMIC] was according to the sense of the word that is being used in the example, on the assumption that it is not the verb or the adjective that is stative or dynamic, but the sense of the adjective or the verb that is used in a sentence (Givón 1970: 835; Kjellmer 1984: 15). The sense of the adjectives and verbs was classified as [STATIVE] or [DYNAMIC] by applying Lakoff's (1966) test. Thus, the verb *fade* meaning 'to cause loss of vividness of color' is dynamic because it produces grammatical sequences in the test, but it is stative when it means 'to lose strength or health'. Similarly, the adjective *cold* is stative when it means 'having a low temperature', but it is dynamic when it means 'having a distant or unfriendly attitude'.

3.4.2.2 The classification of adjectives

One of the main properties of adjectives is that the majority of them, if not all, are stative in the examples because these adjectives do not create *-ly* words with the ability to express MANNER. This feature of subject-related *-ly* words is in line with the hypothesis that stative adjectives do not derive adverbs because the dynamic interpretation of the resulting adverb is blocked by the stative nature of the adjectival base (Kjellmer 1984). However, while *-ly* suffixation is not possible for stative adjectives (see §2.4.2.2), subject-related *-ly* words allow *-ly* suffixation. This feature led to the analysis of the semantic features of the adjectives in the data sample, as follows:

- i) The first step was extraction of all the adjectival bases in the data sample and the identification of their semantic class. Adjectives were semantically classified as PHYSICAL PROPERTY, MENTAL STATE/PROPERTY, or HUMAN PROPENSITY. The classification was based on Dixon's (2004) semantic classes with slight changes that affect the inclusion of some nuclear types within more general or peripheral semantic types of adjectives. These changes involved the addition of adjectives of the central semantic classes COLOR and DIMENSION under the semantic class PHYSICAL PROPERTIES, and VALUE under a more general class such as MENTAL STATE. The semantic class MENTAL STATE/PROPERTY was not in Dixon's classification, but was added here to simplify the labels used and allow categorization of the adjectives that did not fit into Dixon's categories. The classification of adjectives as denoting HUMAN PROPENSITY followed Dixon's categorization. Thus, adjectives such as *toothless*, *invisible*, *white*, or *wet* were classified as PHYSICAL PROPERTY, adjectives such as *grateful*, *absent-*

minded, worried, delighted, or interested were within MENTAL STATE/PROPERTY, and adjectives within HUMAN PROPENSITY were such as *sincere, innocent, immature, incredulous, or bilingual*.

- ii) After the identification of their semantic type, adjectives were classified as [\pm CONTROL] and [\pm TEMPORAL], as these have been considered important properties in the classification of stative adjectives (see section 2.4.2.2). The adjectives were classified as [+CONTROL] when the subject of the sentence had the ability to show the property or state denoted by the adjective in the example where the adjective occurred. Therefore, the adjective *cold* in *snow flurries touched coldly* was classified as [-CONTROL], while the same adjective in *he said coldly* was classified as [+CONTROL]. The subject in the first example does not have the ability to show a cold temperature, while the subject in the second example has the ability to show a cold or distant attitude while speaking. Adjectives were also classified as [\pm TEMPORARY] according to their meaning in the example. Adjectives such as *colorfully* in *flowers (golden poppies) poked colorfully* were classified as [+TEMPORARY] because the color of the flowers will change in a different season, but adjectives such as *blond* in *Riley loomed blondly* were classified as [-TEMPORARY] because the natural color of a person's hair is, in principle, permanent.

Table 12. Template for the semantic analysis of adjectival bases in the data sample of OE, ME and PDE

Adjective	Semantic type	Control	Temporarity
<i>Blond</i>	Physical property	-	0
<i>Desperate</i>	Mental state	-	1
<i>Delighted</i>	Mental state	-	1
<i>Thankful</i>	Mental state	-	1

Table 12 shows the semantic analysis of the adjectival bases in the data. The first column shows the adjective. The second column illustrates the semantic type of the adjective. The last two columns indicate where the adjective is [+CONTROL], signalled with a + symbol, or [-CONTROL] indicated with the – symbol, and [+TEMPORARY] indicated with number 1, or [-TEMPORARY] indicated with number 0.

3.5 Summary

This chapter describes the method used for the collection and analysis of subject-related *-ly* words through the different period of the English language,

and a sample of non-inherent adjectives in PDE. The tools used in the development of this method are the BNC and the COCA for the synchronic data, and several diachronic corpora and dictionaries, such as the DOE and the CMEPV, for the diachronic data.

PDE synchronic corpora, namely the BNC and the COCA, present limitations such as the date of the data sample and the balance between the genres of texts in the data sample. However, these corpora provide a large amount of data which is a beneficial factor to identify subject-relatedness. These corpora have also allowed the identification and study of subject-relatedness, as they are annotated according to parts of speech and their search engine allows the search for combinations of verbs and adverbs. Additional information, such as register, allows the study of subject-relatedness considering several factors and not only its occurrence or not in the use of language. These corpora are also suitable for identification of patterns of non-inherent adjectives, because they allow the sampling of these adjectives and the analysis of individual examples to identify and compare non-inherent senses of these adjectives.

The use of the DOE and the CMEPV, which contain data from a variety of sources, allows the identification of subject-relatedness in OE and ME, and increase the possibility of finding this feature of *-ly* words in a wider variety of texts. Even if these corpora present some limitations and challenges during the data collection and analysis, they do not prevent the identification of subject-relatedness in the data sample. The variety of texts included in both corpora make them the most representative corpora of the language used during each period, and a reliable source to obtain examples of subject-relatedness in standard English rather than just in dialectal varieties.

The combination of synchronic and diachronic corpora and manual analysis of the examples made possible the identification and analysis of subject-relatedness in and through the different periods of the English language.

4. RESULTS AND DISCUSSION

4.1 Introduction

The study of the adjective/adverb interface includes a range of units within which non-inherent adjectives with adverbial meaning and subject-related *-ly* adverbs are included. This chapter presents the results and discussion of the data found during the data collection and in the data analysis. Section 4.2 provides qualitative and quantitative data for the relevant features found during the analysis of non-inherent adjectives and subject-related *-ly* adverbs. The results concerning subject-relatedness include data for the periods of the English language. Section 4.3 discusses the results found, the role of subject-relatedness in the classification of *-ly* as an inflectional or derivational suffix and the categorial status of adjectives and adverbs according to the classification of *-ly*. Thus, the present chapter is structured as follows:

- i) Section 4.2 provides qualitative and quantitative data for non-inherent adjectives and subject-related *-ly* adverbs. Section 4.2.1.1 focuses on the qualitative description of non-inherent adjectives and is divided into two subsections: the first section (§4.2.1.1.1) deals with modifiers, specifically intensifiers, and the second section (§4.2.1.1.2) deals with adverbials. Section 4.2.1.2 focuses on the quantitative description of non-inherent adjectives and includes data on the semantics of non-inherent adjectives (§4.2.1.2.1) and semantic patterns of inherent and non-inherent adjectives (§4.2.1.2.2). Section 4.2.2 provides qualitative and quantitative data for subject-relatedness. Section 4.2.2.1 focuses on the qualitative description of the data and is divided into three subsections: Section 4.2.2.1.1 is devoted to the semantic patterns of verbs and subject-related *-ly* words found in the data. Section 4.2.2.1.2 includes special cases of subject-relatedness. Section 4.2.2.1.3 explores

the ability of stative adjectives to derive *-ly* words and elaborates on the semantic and syntactic properties that have been considered relevant in *-ly* suffixation of stative adjectival base. Section 4.2.2.2 focuses on the quantitative description of subject-related *-ly* adverbs and discusses data on the semantic patterns of verbs and subject-related *-ly* adverbs (§4.2.2.2.1), the semantic features of adjectival bases (§4.2.2.2.2) and the register of these *-ly*-marked units (§4.2.2.2.3). Finally, section 4.2.3 summarizes the results and analysis.

- ii) Section 4.3 elaborates on the discussion of the results and is divided into three subsections. Section 4.3.2 focuses on the different profiles of the *-ly* words under study according to their ability to express adverbial or predicative meaning. Section 4.3.3 discusses the properties of subject-related *-ly* according to the criteria proposed for the distinction of inflection and derivation and places the suffix as part of one type of the morphological system of English. Section 4.3.4 deals with the value of *-ly* and the classification of adjectives and adverbs. Section 4.3.5 is a summary of the discussion.

4.2 Results

4.2.1 Non-inherent adjectives

4.2.1.1 Qualitative analysis

It has been argued that attributive adjectives may not characterize their nominal heads uniformly, and that some adjectives perform functions that do not align with the function of prototypical adjectives (see §2.4.3.1). The combinations of these attributive adjectives and nouns have been analyzed mainly in relation to nouns (e.g. Levi 1978 and subsequent references). The analysis of those units falls outside the scope of this thesis; therefore, this section focuses on units that have the morphology typically associated with adjectives, but the function and the meaning typically associated with adverbs, in separate subsections that deal with modifiers (§4.2.1.1.1) and adverbials (§4.2.1.1.2).

4.2.1.1.1 Modifiers: intensifiers

One of the common properties of a large number of non-inherent adjectives in the data sample is that most of them express degree. The capacity of these adjectives to express DEGREE and, therefore, develop intensifying senses seems to be related to the compatibility between the descriptive meaning of the adjectives and the meaning of their superordinate nouns. Thus, adjectives may develop intensifying senses from their descriptive meanings in combination

with nouns.¹⁸ Examples of some of the adjectives that display intensifying senses and why this use is possible in some cases and not in others are provided below.

Of the adjectives in the data sample, *complete* could be considered the most common and prototypical intensifying adjective, and its ability to have intensifying senses has been explored and evidenced elsewhere (see §2.4.3.1.2). *Complete* can express intensification or not according to its sense, sometimes allowing intensification of a noun, sometimes not. This can be observed in the examples below, showing two senses of *complete*, where only one allows intensification:

- (44) ‘As a **complete beginner** I did not know what to do.’
 Predicative > *[the beginner was complete]
 Adverbial > [someone was completely a beginner]
- (45) ‘What is the purpose of the discourse? # 5 # Is this a **complete discourse** or an extract?’
 Predicative > [the discourse is complete]
 Adverbial > *[it is completely a discourse]

In (44) above, *complete* does not refer to a property of the noun as denoting having all parts. The function of *complete* is to express the extent to which a person is a beginner, i.e. *complete* refers to someone who, as a beginner, is at the first stages of something. Conversely, in (45), the noun can be characterized as *complete* or not, because a discourse has parts and no intensifying sense may apply.

Like the intensifying sense of *complete* illustrated in the examples above, the intensifying sense of other adjectives depends on the sense of the adjective that is activated in a specific example. Adjectives such as *utter* or *total* share the behavior of *complete* and do not characterize the noun in examples like (46) and (47), where the intensifying sense of the adjective comes from its adverbial counterpart.

- (46) ‘But if only one had had it – well, it could be **utter disaster**. Anyway, such kissing was not hygienic.’
 Predicative > *[the disaster is utter]
 Adverbial > [it is utterly a disaster]

¹⁸ The sense used for the analysis of every adjective and adverb in this chapter has been obtained from the gloss of these words in the OED.

- (47) ‘They have received kindness, thoughts and good wishes from **total strangers** throughout England, Wales, Scotland – and particularly Ireland, he added.’

Predicative	>	*[the strangers were total]
Adverbial	>	[they were totally strangers]

The adjectives *utter* and *total* do not characterize the noun in the examples and the only function of these adjectives is that of intensifier. The general meaning of *utter*, namely ‘that is farther out than another (implied or distinguished as inner); forming the exterior part or outlying portion; relatively far out, outward, external, exterior; also, indefinitely remote’, does not express a feature of *disaster* in (46). The sense that leads to the intensifying sense of *utter* in the example and is in line with its adverbial interpretation is ‘going to the utmost point’. The adjective *total* may also display two senses: i) ‘of, pertaining, or relating to the whole of something’ which cannot be used to refer to *stranger* in (47), and ii) ‘complete in extent or degree’ which relates to the adverbial interpretation of *total* as an intensifier.

As for *true*, the intensifying sense of the adjective emerges in combination with nouns that, like *scholar*, cannot be characterized as true in the sense ‘real, authentic’ (as opposed to ‘fictitious’). Thus, in (48) *true* intensifies the fact that someone is a scholar, whereas in (49) it can give an attribute of the noun, because *story* can be defined as ‘real, genuine, authentic; not false or spurious’. Therefore, the noun *story* is compatible with the predicative interpretation of *true*, while *scholar* is compatible only with the adverbial meaning that can be traced back from the fact that someone is a scholar in every sense of the term.

- (48) ‘Second, any **true scholar** is expected to have a capacity to respond to -- and indeed share in -- these humane qualities.’

Predicative	>	*[the scholar is true]
Adverbial	>	[someone who is truly a scholar]

- (49) ‘It was a good movie with some intense thrilling moments. It was based on a **true story**.’

Predicative	>	[the story was true]
Adverbial	>	*[it was truly a story]

In the case of *perfect*, the adjective shows a shift from an inherent to a non-inherent sense by presenting cases that allow inherent and non-inherent

interpretations. Example (50) shows inherent *perfect*, in a sentence where it can characterize *place* as ‘free from any imperfection or defect of quality’. Example (52) shows non-inherent *perfect*, where the function of the adjective is as an intensifier, since an idiot cannot be characterized as *perfect* in any sense. Finally, example (51) is different and shows how *perfect* is double-oriented, because it can characterize *happiness* as a state ‘having the essential characteristics, elements or qualities, not deficient in any particular’, but it also intensifies the state of pleasure that is involved in the noun *happiness*. Therefore, *perfect* could be considered a non-inherent adjective currently under lexical readjustment by which its intensifying senses are increasing.

- (50) ‘She thought she’d found the **perfect place** to live, yet already it was slipping away.’

Predicative	>	[the place is perfect]
Adverbial	>	*[it is perfectly a place]

- (51) ‘We three spent the whole of Christmas week in **perfect happiness**.’

Predicative	>	[the happiness is perfect]
Adverbial	>	[it is perfectly happiness]

- (52) ‘What a **perfect idiot**. She was feeling exactly as she had in the old days.’

Predicative	>	*[the idiot is perfect]
Adverbial	>	[someone who is perfectly an idiot]

The above shows that the difference between intensifying and predicative senses of adjectives can best be illustrated when the same adjective is in combination with various nouns, but some examples containing the same adjective and noun show the relevance of the meaning of the noun in the adjective’s potential to express intensification:

- (53) ‘His fascination with paint and his educated sense of design helps each picture to become a **complete experience**.’

Predicative	>	*[the experience is complete]
Adverbial	>	[it is completely an experience]

- (54) ‘What it costs to appreciate Matisse this month # With the Matisse exhibition just opened at the Museum of Modern Art in New York (until 12 January; see interview with the curator, John Elderfield, The Art Newspaper No. 20, July-September 1992, p. 8), the discerning visitor should budget for the **complete experience** with the following: # Pair

of admission tickets to MOMA's exhibition: \$25 # London-New York by Concorde return (for European visitors): 5,030 # Henri Matisse: A Retrospective, John Elderfield's exhibition catalogue: \$37.50 (soft cover).'

Predicative	>	[the experience is complete]
Adverbial	>	*[it is completely an experience]

In the first example, *experience* refers to 'what is experienced' involving an emotion or state that is intensified by the use of *complete*, while in the second example *experience* refers to an event that encompasses several parts and for which the visitor has to purchase a set of items that will make the experience not to miss anything. The same contrast can be observed in the examples below, where *experience* is in combination with *real*. The meaning of *experience* in (55) is the same as the meaning of *experience* in (53), as it intensifies the noun, but in (56), *experience* refers to the event that takes place because it exists physically and is not imaginary. In (56), the adjective is in combination with *world* also referring to something that happens in the real world and not in an imaginary one.

(55) "It was just a lot of fun, a **real experience**," says Friesz, a College Football Hall of Famer.'

Predicative	>	*[the experience is real]
Adverbial	>	[It is really an experience]

(56) 'My first **real experience** in the use of mathematics to predict things in the real world was in connection with the design of atomic bombs during the Second World War.'

Predicative	>	[the experience was real]
Adverbial	>	*[it was really an experience]

The data included in this section show that some adjectives may convey intensifying senses, which develop from their descriptive meanings. The ability of the adjective to express intensification is closely related to the noun it combines with, as some nouns are compatible with the predicative meaning of the adjective, and others allow only the intensifying sense of the adjective.

4.2.1.1.2 Adverbials

In addition to the intensifying sense of non-inherent adjectives, the combinations in the data sample show that this type of adjective can also express adverbial meaning such as PROCESS, TIME and SPACE LOCATION. The

expression of PROCESS will be the focus of this section, due to the relation of this type of units and subject-related *-ly* words.

Of the adjectives included in the data, the adjective *spectacular* has the ability to express PROCESS or MANNER in most of its non-inherent senses, but this adjective can also express DEGREE. Thus, the examples below containing *spectacular* in attributive position show the progression of the inherent and non-inherent senses of this adjective.

- (57) ‘The Historic Old Iron Bridge makes perfect backdrop for the **spectacular firework** and serves as another reminder of our heritage.’
 Predicative > [the firework is spectacular]
 Adverbial > *[it was a firework in a spectacular way]
- (58) ‘The commons and often **spectacular adulteration** of food was not seriously tackled until the Food and Drugs Act 1875.’
 Predicative > *[the adulteration is spectacular]
 Adverbial > [it was spectacularly adulterated]
- (59) ‘The inwardly oriented, absolute anti-orthodoxy First Amendment of the second period has been a **spectacular success**.’
 Predicative > *[the success is spectacular]
 Adverbial > [it succeeds in a spectacular way/it was spectacularly a success]

In (57), *spectacular* can characterize the noun it precedes with its sense ‘of the nature of a spectacle or show; striking or imposing as a display’. Example (58) shows the noun-intensifying sense of *spectacular*, which can be retrieved from its adverbial interpretation, and example (59) shows the ability of *spectacular* to express DEGREE and PROCESS at the same time. In (59), *spectacular* can intensify the superordinate noun *success* and it also expresses that the amendment of the second period has succeeded spectacularly or in a spectacular way.

Some examples containing *spectacular*, e.g. (60) and (61) below, only express PROCESS. The descriptive meanings of the adjective cannot characterize the nouns in the examples, and the only possible meaning is the one traced back from the adverbial interpretation. These examples show a lack of semantic compatibility between the adjective and the nouns, because the descriptive meaning of the adjective cannot characterize the superordinate noun. Therefore, *spectacular* shows the same process of lexical readjustment that can be

observed in adjectives that express DEGREE. The non-inherent sense of *spectacular* as an adjective that expresses PROCESS supports the argument that non-inherent adjectives experience a process of lexical readjustment by which some adjectives develop new senses, e.g. PROCESS.

- (60) ‘Gary Triano’s **spectacular death** by car bomb in 1996 shook that perception – for a while.’

Predicative > *[the death is spectacular]

Adverbial > [Gary Triano died in a spectacular way]

- (61) ‘This is the time when the blackthorn breaks in its **spectacular blossom**; and, strangely enough, within the writer’s experience, this period often coincides with a cold spell distinguished by east or north-east winds¹⁹.

Predicative > *[the blossom is spectacular]

Adverbial > [the blackthorn blossoms in a spectacular way]

Within the sample of non-inherent adjectives, some adjectives express meanings other than DEGREE and PROCESS, e.g. TIME and SPACE LOCATION. Adjectives such as *old* and *original* can express TIME LOCATION in combination with nouns such as *boyfriend* and *encyclopedia*, respectively. The adjective *old* has various descriptive senses for the characterization of people or things as ‘someone or something that has lived a relatively long time’ or physically and mentally as ‘having the characteristics of maturity or age’. Any of these descriptive meanings can be applied to *old* in (62), where it combines with *boyfriend*, but it can characterize *encyclopedia* in (63) as something with special features that make it look advanced in years. In (62), *old* refers only to a former period of time when someone was Sarah’s boyfriend and its meaning comes from the adverbial paraphrase where *old* can be traced back from the meaning of *formerly*.

- (62) Anna knew him at once. It was Stephen, Sarah's **old boyfriend**.

Predicative > *[Sarah’s boyfriend is old]

Adverbial > [He was formerly her boyfriend]

- (63) And he had an **old encyclopedia** and he faxed to me what that encyclopedia said about the camera lucida.

¹⁹ It should be noticed that the inherent interpretation of *spectacular blossom* may be possible because the noun and the verb are morphologically identical.

Predicative	>	[The encyclopedia is old]
Adverbial	>	*[it was formerly an encyclopedia]

Another adjective that can express SPACE LOCATION is the adjective *original*. This adjective has several descriptive senses and some lead to the non-inherent interpretation of the adjective that can be traced back from the adverbial interpretation of the adjective. The descriptive sense ‘belonging to the beginning or earliest stage of something; existing at or from the first; earliest, first in time’ does not characterize *interpretation* in (64), and refers only to a previous interpretation of *the bivariate effect* so that the predicative interpretation of the example is not possible and the meaning comes from the adverbial one. Conversely, the descriptive sense ‘something new, fresh or different’ can characterize *interpretation* in example (65), where *original* can take predicative position to characterize the noun, but cannot be related to the adverbial interpretation.

- (64) We shall systematically ask about each outcome: would it change our **original interpretation** of the bivariate effect?

Predicative	>	*[Our interpretation is original]
Adverbial	>	[it was originally/formerly our interpretation]

- (65) The best of these general histories offer a coherent and **original interpretation** of the subject matter.

Predicative	>	[the interpretation is original]
Adverbial	>	*[it was originally the interpretation]

Examples containing the adjective *original* also show the relevance of the article, definite and indefinite, before the adjective. Example (66) shows that the definite article favors the adverbial interpretation of *original*, while the use of the indefinite article blocks this adverbial interpretation and only allows the predicative one. Therefore, *the original idea* refers to the idea that is the origin of another idea, but *an original idea* refers to a new or fresh idea. The adjective *original* expresses TIME LOCATION in the first example and a characteristic of the idea in the second.

- (66) The **original idea** was that Hubert would join after university, but he had to give that up.

Predicative	>	*[the idea is original]
Adverbial	>	[it was originally the idea]

- (67) He never had an **original idea** in his life.

Predicative	>	[an idea is original]
Adverbial	>	*[it was originally an idea]

A property that has been observed in the data sample is the possibility for some adjectives to express more than one adverbial meaning. This is a property of the adjective *previous* that can express the adverbial meanings TIME and SPACE LOCATION, as in (68) and (69) below.

- (68) Ms. Warren said she wants to revert to a **previous practice** that would require any member of the Senate who wants to block closure.

Predicative	>	*[a practice is previous]
Adverbial	>	[it was previously a practice]

- (69) He may occasionally have had the opportunity to revise **previous pages**, but this was not the norm.

Predicative	>	*[pages are previous]
Adverbial	>	[pages in a previous part]

The adjective *previous* does not characterize the noun it precedes in any of the examples above, because its sense ‘coming or going before (in time or order); foregoing, preceding, antecedent’ cannot refer to a feature or state of nouns as typical adjectives do. Therefore, the sense of *previous* leads to a non-inherent sense of the adjective in combinations such as *previous practice* and *previous pages* in (68) and (69). The first example illustrates the non-inherent sense of *previous* to express TIME LOCATION, while the second is used to express SPACE LOCATION. The indefinite article in (68) does not influence the interpretation of the example, as it does not block the adverbial interpretation, but indicates that it is one of several practices that were carried out at an earlier stage.

Non-inherent senses of adjectives to express SPACE LOCATION are also displayed by adjectives, as in *subcutaneous* in (70) below. The predicative interpretation of the example is not acceptable, because *subcutaneous* cannot be used to specify a type of emphysema or to characterize it, as adjectives such as *benign* or *paraseptal* would refer to a quality of the emphysema or to a type, respectively. Thus, the adjective *subcutaneous* refers only to the location of the emphysema, and is restricted to attributive position because its meaning can be traced back only from its adverbial interpretation.

- (70) Management of facial **subcutaneous emphysema** usually involves hospital admission and observation for complications.

Predicative	>	*[the emphysema is subcutaneous]
-------------	---	----------------------------------

Adverbial > [the emphysema is under the skin]

This section provides evidence of non-inherent adjectives that do not take *-ly* suffixation but can express adverbial meaning. Two of the most relevant non-inherent senses of these adjectives in the adjective/adverb interface are those that lead to meanings such as DEGREE and PROCESS. The corpus evidence provided in this section brings additional data on non-inherent adjectives provided in previous research. The data sample also contains non-inherent adjectives that can express other adverbial meanings, e.g. SPACE and TIME LOCATION.

4.2.1.2 Quantitative analysis

The combinations of attributive adjectives and nouns in the data sample include concordances that display inherent and non-inherent senses of the same adjective. Thus, this section presents the classification of the most and least common non-inherent senses of adjectives and the features of the nouns inherent and non-inherent adjectives are combined with.

4.2.1.2.1 The semantics of non-inherent adjectives

Adjectives that allow non-inherent senses display several adverbial meanings such as PROCESS, DEGREE, TIME, and SPACE LOCATION, and MODALITY, as shown in Figures 9 and 10 below:

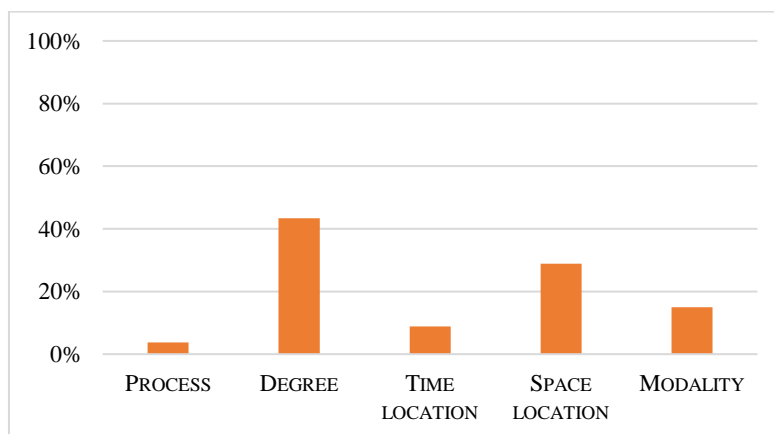


Figure 9. Semantic classification of adverbial meanings displayed by non-inherent adjectives (percentages)

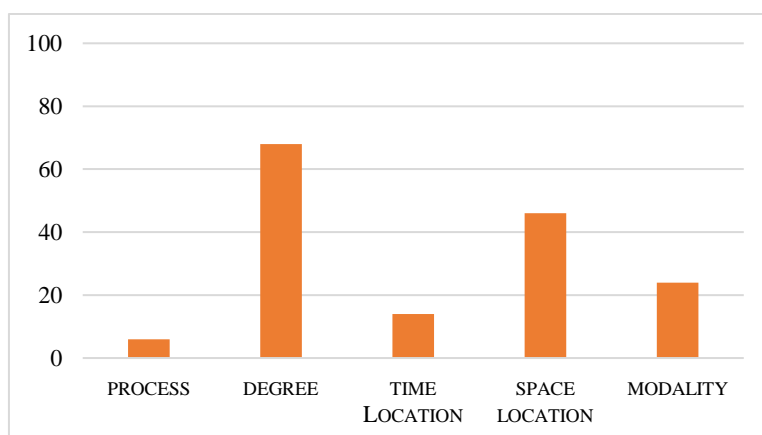


Figure 10. Semantic classification of adverbial meanings displayed by non-inherent adjectives (absolute values)

The data in Figures 9 and 10 show the meaning of 158 concordances that contain non-inherent adjectives preceding nouns. The distribution of the concordances is the following:

- i) The expression of DEGREE and, therefore, the intensifying meaning of non-inherent adjectives is the most common in the data sample, with 68 concordances, i.e. 43% of the non-inherent cases found.
- ii) Non-inherent adjectives that involve SPACE LOCATION amount to 46 concordances, i.e. 29% of the non-inherent cases found.
- iii) Adjectives denoting MODALITY, TIME LOCATION and PROCESS are the least common in the data sample and amount to 24, 14 and 6 concordances, i.e. 15%, 8,9%, and 3,8% of the non-inherent cases found, respectively.

4.2.1.2.2 Semantic patterns of non-inherent adjectives and nouns

In addition to the semantics of non-inherent adjectives, it is important to consider the semantic properties of the nouns they combine with as well as the properties of the nouns that combine with the adjectives in their inherent senses. Hence, as Figure 11 shows, the semantic features of nouns that combine with inherent and non-inherent adjectives are the following:

- i) Inherent adjectives combine more frequently with COUNT, INANIMATE, and CONCRETE nouns such as *walls*, *fireworks*, *cathedral*, and *village*, among others. The number of concordances amounts to 40, 47 and, 35 concordances, i.e. 69,6%, 87,5%, and 60,7% of the cases found, respectively.

- ii) Non-inherent adjectives combine more frequently with COUNT, INANIMATE, and ABSTRACT nouns such as *idea*, *danger*, *experience*, and *emergency*, among others. The number of concordances amounts to 87, 109, and 86, i.e. 55,7%, 87,5%, and 54,4% of the cases found, respectively.

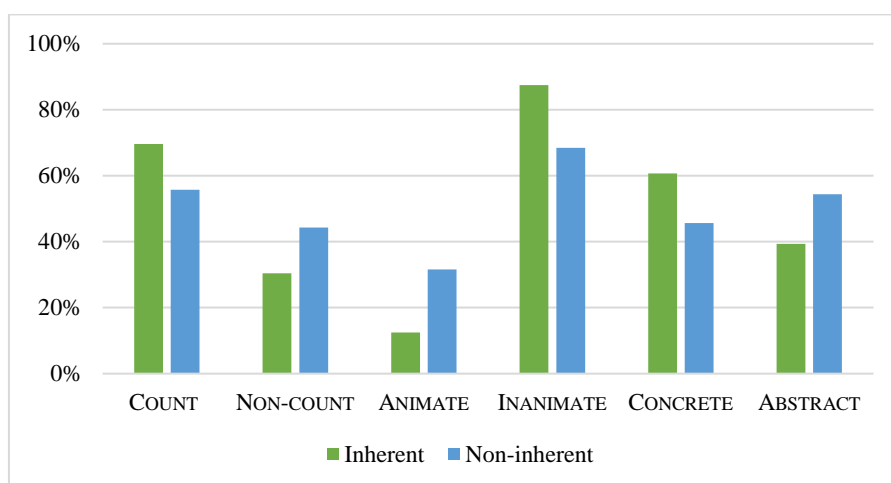


Figure 11. Combination of inherent and non-inherent adjectives with nouns according to semantic type (percentages)

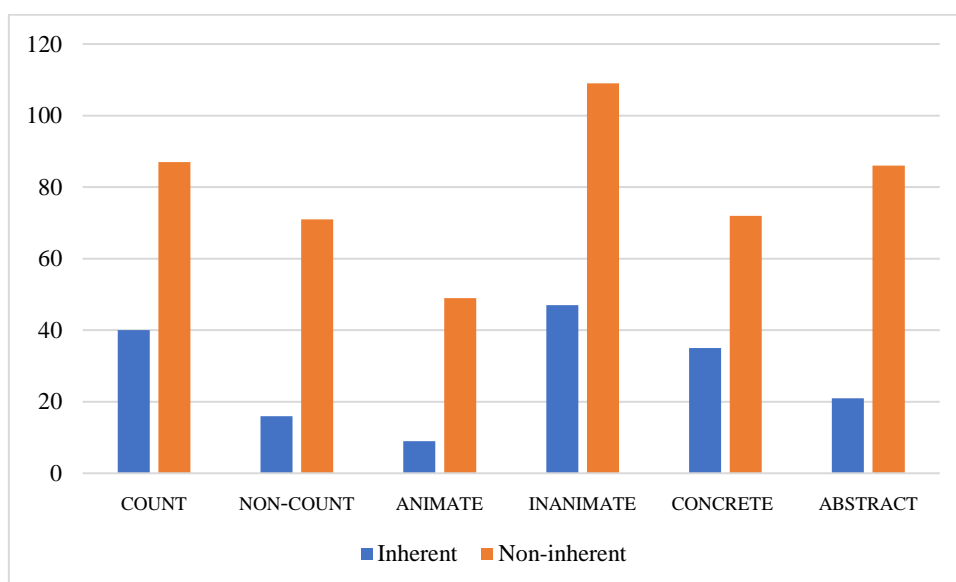


Figure 12. Combinations of non-inherent adjectives with nouns according to semantic type (absolute values)

Regarding the non-inherent sample, the combinations of the semantic types of non-inherent adjectives and nouns in Figure 13 below show the following:

- i) COUNT nouns combine more frequently with non-inherent adjectives expressing SPACE LOCATION and DEGREE in 36 and 23 concordances, i.e. 42% and 37,3% of the cases found, respectively. NON-COUNT nouns mainly combine with non-inherent adjectives expressing DEGREE in 48 concordances, i.e. 62,8% of the cases found.
- ii) ANIMATE nouns combine more frequently with adjectives that express DEGREE or SPACE LOCATION in 14 and 24 concordances, i.e. 26% and 46% of the cases found, respectively. INANIMATE nouns (51%) combine more frequently with non-inherent adjectives that express DEGREE in 57 concordances, i.e. 51% of the cases found.
- iii) CONCRETE nouns combine more frequently with non-inherent adjectives that express SPACE LOCATION in 39 concordances and ABSTRACT nouns combine more frequently with non-inherent adjectives that express DEGREE in 55 concordances, i.e. 55,5% and 62,7% of the cases found, respectively.

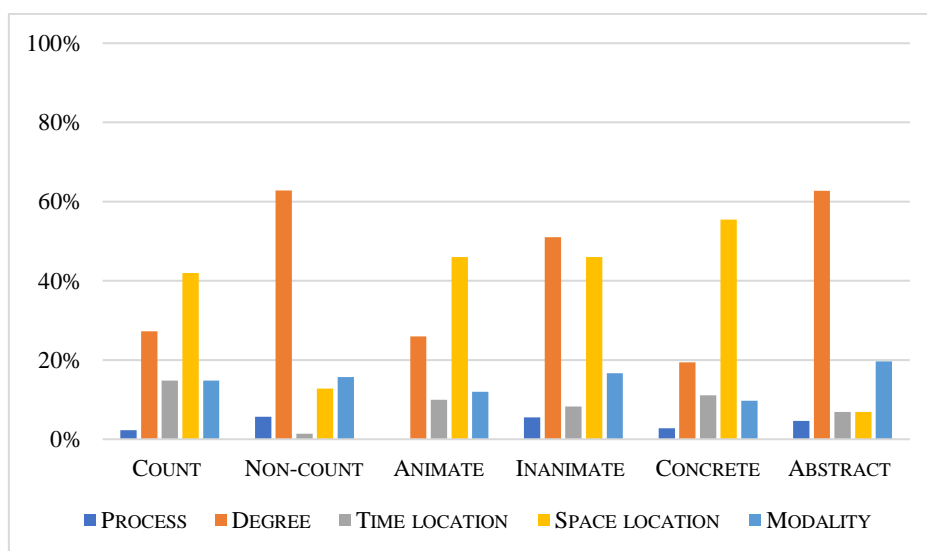


Figure 13. Combinations of non-inherent adjectives and nouns according to semantic types (percentages)

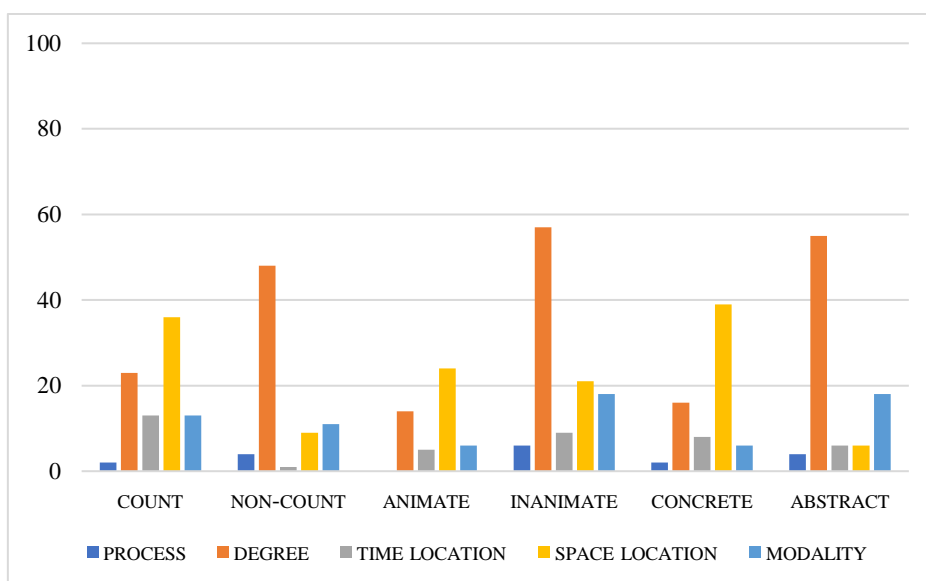


Figure 14. Combinations of non-inherent adjectives and nouns according to semantic type (absolute values)

4.2.2 Subject-relatedness

4.2.2.1 Qualitative analysis

4.2.2.1.1 Semantic patterns

This section includes a description of all the relevant patterns found in the analysis of the corpus data in every period of the English language under study. The examples included in this research are in line with the evidence retrieved for similar cases in Valera (2014) or, for a different structure that also has implications on word-class overlap, in Payne, Huddleston & Pullum (2010). The cases are described below in the order presented in the previous chapter.

4.2.2.1.1.1 Dynamic verbs

Dynamic verbs have been described as a type of verb which is related to the expression of actions that involve movement or the subject's volition to carry out the action denoted by verb. One of the main features of these verbs is that the actions they denote are typically carried out by an agentive subject (Quirk, Greenbaum, Leech & Svartvik 1985: 178). As noted in the literature, dynamic words such as verbs are compatible and more liable to combine with other dynamic words (Kjellmer 1984: 8). For this reason, dynamic verbs usually combine with adverbs that have also been classified as dynamic words. Despite

the compatibility between these word-classes and the possibility of verbs and adverbs to combine, it cannot be argued that the dynamic verbs in the data presented in this section combine with adverbs due to the lack of adverbial meaning of the *-ly* words following the verbs. The behavior of these *-ly* words is more similar to that of subordinate subject complements than to the behavior of manner adverbials, in that they refer to properties or states of the subject instead of to the way the action expressed by the verb is developed. These combinations are illustrated in:

- (71) He was still jet-lagged, which was plausible, but as he crawled into bed he **asked woundedly**: "Hey, where you going?".

Adverbial	>	*[He was still jet-lagged, which was plausible, but as he crawled into bed he asked in a wounded way: "Hey, where you going?"]
Predicative	>	[He was still jet-lagged, which was plausible, but as he crawled into bed he asked [being] wounded: "Hey, where you going?"]

- (72) They are called shedu or lamassu -- they stand here as guardians, but they could take other shapes, they **walked invisibly** behind men in the streets; everyone had his genie, some people say, and they protected them.

Adverbial	>	*[They are called shedu or lamassu -- they stand here as guardians, but they could take other shapes, they walked in an invisible way behind men in the streets; everyone had his genie, some people say, and they protected them]
Predicative	>	[They are called shedu or lamassu -- they stand here as guardians, but they could take other shapes, they walked [being] invisible behind men in the streets; everyone had his genie, some people say, and they protected them]

As shown in the paraphrases, none of these *-ly* words allows an adverbial interpretation, that is to say, they do not express circumstance or manner, but a quality of the subject. The impossibility of the *-ly* words to express adverbial meaning is caused by the incompatibility between the meaning of the verb and the meaning of the *-ly* word because its adjectival base blocks the adverbial

interpretation of the resulting *-ly* word and does not allow the subject to develop the action in the specific way denoted by the *-ly* word. Regardless of their morphology, *woundedly* and *invisibly* could be syntactically analyzed as subject complements because their paraphrases indicate that they behave syntactically like predicative elements. The adjectival bases used to create these *-ly* words refer to inherent properties of the subject such as emotions or feelings and also to physical properties of the subject. As illustrated in the examples below, most of the *-ly* words refer to the state of the subject when the action of the verb is being developed. Therefore, *ashamedly* in (73) refers to the state of the subject that feels ashamed while he looks at the flames, but it does not mean that the subject looks in an ashamed way. The same case can be observed in (74), where *thankfully* expresses that the subject feels thankful because she has found a place to park after searching for it, but the adverbial interpretation of *thankfully* is not possible (there is no thankful way of accelerating).

- (73) He looked across the fire at Lennie's anguished face, and then he **looked ashamedly** at the flames.

Adverbial > *[He looked across the fire at Lennie's anguished face, and then he looked in an ashamed way at the flames]

Predicative > [He looked across the fire at Lennie's anguished face, and then he looked [being] ashamed at the flames]

- (74) She leaned across and took her ticket, the cold rush of air as she wound down her window making her shiver, in spite of her warm suit. April and it was still like this. It seemed that winter would never go. She wound up the window and started to cruise round, her eyes searching for the nice little space that would take her white Golf GTI. She saw a place at the end of the row and **accelerated thankfully**.

Adverbial > *[...her eyes searching for the nice little space that would take her white Golf GTI. She saw a place at the end of the row and accelerated in a thankful way]

Predicative > [...her eyes searching for the nice little space that would take her white Golf GTI. She saw a place at the end of the row and accelerated [being] thankful]

In OE and ME as in PDE, the subject-related *-ly* words in the dataset are also in combination with dynamic verbs, but these *-ly* words do not express adverbial meaning. In OE, the verbs are in combination with *heanlice* ‘ashamedly’ and *bliðe* ‘joyfully’. These *-ly* words do not refer to the way of escaping, or carrying, but to the state of the subject when the actions take place. In (75), the subject was ashamed when he escaped home. The same *-ly* word is used in (75) and (73) in OE and PDE and in both periods the adverbial interpretation is blocked regardless of the verb *ashamedly* combines with, because its adjectival base involves a state that cannot be controlled by the subject. Thus, the subject cannot develop the action denoted by the verb in an ashamed way because s/he does not have control over this state. The same happens in example (76), where the paraphrase indicates that the subject felt joyful when the action of the verb was carried out, but this *-ly* word does not express MANNER.

- (75) þy æfterran geara þæs Faius hicora consul, þe oðre noman wæs haten Gurius, gefeaht wið Somnitu, & **heanlice hamweard** oðfleah (Oros. Hist.adv.pag. 3.22.6).

“In the second year their consul Faius who was also called Gurius, fought against Samnitas, and **ashamedly escaped** home”

Adverbial > *[In the second year their consul Faius who was also called Gurius, fought against the Samnitas, and in an ashamed way escaped home]

Predicative > [In the second year their consul Faius who was also called Gurius, fought against the Samnitas, and [being] ashamed escaped home]

- (76) þæt cild sona aras of deaðe þurh Godd; and seo fostermodor hit **bær bliðe** to ðam fæder, hal and gesund (ÆHom 24 31).

“that child soon arose from death through God; and the foster mother **joyfully carried** it to the father, healthy and sound”

Adverbial > *[that child soon arose from death through God; and the foster mother in a joyful way carried it to the father, healthy and sound]

Predicative > [that child soon arose from death through God; and the foster mother [being] joyful carried it to the father, healthy and sound]

ME examples contain *-ly* words that also refer to the state of the subject when the action denoted by the verb takes place. The view in this thesis is that there is not a glad way of lifting the eyes, a thankful way of thanking somebody, or a sad way of taking a glove: it is the subject who feels glad, thankful or sad when the action takes place. The predicative interpretation of the examples is not only indicated by the paraphrases used, but in examples such as (79), which contains *sadly*, it is also expressed by the context in the sentence because *for the defeat of a champion* favors the predicative interpretation.

- (77) To heuen þei **lifte** her ʒeʒen **glade**, And on her tongis þonkyng made (a1400 Cursor (Trin-C R.3.8)17837).

“To heaven they **lifted** their eyes **gladly**, and on her tongues made their thanks”

Adverbial	>	*[To heaven they lifted their eyes in a glad way, and on her tongues made their thanks]
Predicative	>	[To heaven they lifted their eyes [being] glad, and on her tongues made their thanks]

- (78) She knelyd downe, **thankyd** hym full **thankfully**, Embrasyd hym (c1475 Court Sap.(Trin-C R.3.21)878).

“She knelt down, **thanked** him **thankfully**, embraced him”

Adverbial	>	*[She knelt down, thanked him in a thankful way, embraced him]
Predicative	>	[She knelt down, thanked him [being] thankful, embraced him]

- (79) The damesell **toke up** the glove all **hevyly** for the defaute of a champion ((a1470) Malory Wks.(Win-C)655/18).

“the damsel **took up** the glove all **sadly** for the defeat of a champion”

Adverbial	>	*[the damsel took up the glove all in a sad way for the defeat of a champion]
Predicative	>	[the damsel took up the glove all [being] sad for the defeat of a champion]

Apart from the properties seen in the previous examples, in the PDE data, there are also cases containing subject-related *-ly* words in which the subjects are not animate. In these examples, the *-ly* word typically refers to a nominal element in the clause that is part of the body. It can be seen in:

- (80) "And to think we parted in anger. Over nothing, really." "What was it?" His eyes **flicked irritably** toward me. I wasn't winning any popularity

contests with Headmaster Sel-wyn. "A matter of policy," he replied smoothly.

Adverbial > *["And to think we parted in anger. Over nothing, really." "What was it?" His eyes flicked in an irritable way toward me. I wasn't winning any popularity contests with Headmaster Sel-wyn. "A matter of policy," he replied smoothly.]

Predicative > ["And to think we parted in anger. Over nothing, really. " "What was it?" His eyes flicked [being] irritable toward me. I wasn't winning any popularity contests with Headmaster Sel-wyn. "A matter of policy," he replied smoothly.]

(81) The bladder **wriggled wetly**, split open across the middle, and spoke to Reverend Donnelly.

Adverbial > *[The bladder wriggled in a wet way, split open across the middle, and spoke to Reverend Donnelly]

Predicative > [The bladder wriggled [being] wet, split open across the middle, and spoke to Reverend Donnelly]

The *-ly* word in (80) does not characterize the eyes, it refers to the state of the person to whom the eyes belong, the person who made the questions in the previous part of the sentence. The eyes are not irritable, it is the person that is irritable or bad tempered while flickering. The adverbial interpretation of this example, namely 'in an irritable way', would refer to causing irritation but, instead, it refers to the state of the person who is irritable due to the situation described in the sentence. In the case of *wetly* in (81), it does not refer to the way of wriggling, but to the physical state of the bladder that, as an inner part of the body, is always wet. In this example the verb has been considered dynamic and the bladder can develop the action (this is a case of personification of the bladder as can be seen in the rest of the sentence where it says that the bladder spoke). This type of examples and characterization is also consistent with the register where the example occurs, namely fiction (fantasy and science fiction).

4.2.2.1.1.2 Stance verbs

Stance verbs can be classified between dynamic and stative verbs since the stative/dynamic distinction is not clear-cut and subdivisions of this distinction are needed. These verbs have been defined as a type of intransitive verbs that cannot stand alone and, consequently, need syntactic support (Quirk, Greenbaum, Leech & Svartvik 1985: 205). The syntactic support of stance verbs is typically realized by an adverbial or, less commonly, a subject adjunct. The *-ly* words in the data obtained for this research are morphologically marked as adverbs and follow stance verbs, but these do not behave as adverbials and function as subject predicatives:

- (82) The woman's name was Giselle, and she **lived bilingually** in Montreal.
- | | | |
|-------------|---|---|
| Adverbial | > | *[The woman's name was Giselle, and she lived in a bilingual way in Montreal] |
| Predicative | > | [The woman's name was Giselle, and she lived [being] bilingual in Montreal] |
- (83) A shell of wall **stood brokenly** among the rubble, exposing all that was left of the inside of a house – peeling wallpaper, taps for a bath, a crumbled fireplace.
- | | | |
|-------------|---|---|
| Adverbial | > | *[A shell of wall stood in a broken way among the rubble, exposing all that was left of the inside of a house – peeling wallpaper, taps for a bath, a crumbled fireplace] |
| Predicative | > | [A shell of wall stood [being] broken among the rubble, exposing all that was left of the inside of a house – peeling wallpaper, taps for a bath, a crumbled fireplace] |
- (84) She **stood worriedly** in front of him, brows pulled together, feathery hair over her shoulders and clinging in fine threads to the sweat of her forehead.
- | | | |
|-------------|---|--|
| Adverbial | > | *[She stood in a worried way in front of him, brows pulled together, feathery hair over her shoulders and clinging in fine threads to the sweat of her forehead] |
| Predicative | > | [She stood [being] worriedly in front of him, brows pulled together, feathery hair over her shoulders and clinging in fine threads to the sweat of her forehead] |

In these examples the *-ly* words do not refer to the verbs, but express qualities of the subjects. In (82), the woman does not live in a bilingual way; she is bilingual because she lives in Montreal (a bilingual location where French and English are spoken). The rest of *-ly* words in these examples, *brokenly* and *sleepily*, are in combination with stance verbs that do not imply movement and, as a result, the adverbial interpretation of the verbs is not possible. The adjectival base of *brokenly*, specifically *broken*, in (83) meaning ‘reduced to small pieces’ does not allow the adverbial interpretation of the resulting *-ly* word, even if it takes the suffix *-ly*, because it refers to a feature of the object. Example (84) contains the same verb as (83) and the adverbial interpretation is blocked too, and the *-ly* word refers to the state of the subject and means ‘showing concern’.

Another property of these words is their obligatoriness, because, if these words are deleted, the meaning and/or the acceptability of the sentence will change (unless, as in these examples, the stance verb can rely on a second adverbial as syntactic support, e.g. *in Montreal* or *among the rubble*), because a piece of information about the subject that is given when the *-ly* words appear will be missed. This quality makes these subject-related *-ly* words more obligatory than MANNER adverbs and the rest of the elements following the verb. If these words were manner adverbs as *-ly* words that typically follow stance verbs, they could be deleted and the meaning of the sentences would be preserved. Therefore, the suffix *-ly* does not provide these *-ly* words with adverbial meaning, but it facilitates a syntactic position or provides a different property such as positional freedom. Thus, it could be considered that the reason why these *-ly* words are morphologically marked, even if they do not express adverbial meaning, is the position that they take in the sentence, as the most common element following stance verbs are adverbs.

The OE data show this combination as well. The examples display the same features as PDE examples. In (85), the verb could be translated as ‘attacked’ but its literal meaning is ‘stood’, so it would be classified as a stance verb. The adverbial interpretation of *hetelice* ‘furiously’ is not possible because it refers to the state of the dogs that were furious. In (86) the *-ly* word refers to the state of the subject (‘sad’), and its morphology can be due to its syntactic position, since it takes mid-position in the verb phrase, i.e. as typically taken by *-ly* adverbs. However, example (87) shows a different syntactic pattern that is the coordination of all the elements ending in *-ly*. The *-ly* words in the example can be paraphrased as adverbs to denote MANNER, because the subject can live not thinking about what is right (*wantonly*), as if he is more important than

others (*arrogantly*) and desiring or trying to get an excessive wealth (*greedily*). By contrast, *andiendlice* ‘enviously’ does not allow this adverbial interpretation because, unlike the other *-ly* words, *enviously* refers to how the subject feels during his life. The use of *-ly* suffixation in *enviously* can be due to the syntactic structure of the sentence. If, instead of *enviously*, the writer uses *envious*, the syntactic structure of the sentence becomes more complex, but the use of *enviously* allows a simple syntactic structure and can be understood by the reader.

- (85) hit gelamp þæt se gedwola rad on ðære wucan ymbe sum ærende, þa gestodon hine hundas **hetelice** swyðe (ÆLS (Ash Wed) 51).

“It happened that when the heretic went in that week about an errand, the dogs **stood** very **furiously**”

Adverbial > *[It happened that when the heretic went in that week about an errand, the dogs stood [very] in a furious way]

Predicative > [It happened that when the heretic went in that week about an errand, the dogs stood [being] very furious]

- (86) Ða gebroðra **sarige** ða **sæton** ofer ðæt lic... (ÆLS 31.212).

“The brothers **were** then **sadly sitting** over that body...”

Adverbial > *[The brothers were then in a sad way sitting over that body...]

Predicative > [The brothers were then [being] sad sitting over that body...]

- (87) ThCap 2 32.361.5: gif he gallice & ofermodlice & **andiendlice** & strudgendlice his lif drohtnað (ThCap 1 32.361.12 on æfeste).

“if he wantonly and arrogantly and **enviously** and greedily **lives** his life”

Adverbial > *[if he wantonly and arrogantly and in an envious way and greedily lives his life]

Predicative > [if he wantonly and arrogantly and [being] envious and greedily lives his life]

In the examples of this combination in ME, the *-ly* words refer to features of the subjects. In (88), *handsomely* does not express MANNER, i.e. it does not refer to a handsome way of standing, but to the appearance of the city that is characterized as handsome. In (89), *steadfastly* refers to the attitude of the subject that is firm in his/her cause, but not to a firm way of standing. In (90), *sadly* also refers to the state of the subject when sitting because, as expressed

by *all of them were troubled and left their meal*, that causes sadness in the subject. As in the previous examples, the predicative interpretation of the *-ly* word is supported by the rest of the sentence.

- (88) The wynd ... contrarie ... made hem in a citee for to tarie That **stood** ful **myrie** [vr. meryly] vp on an hauen syde ((c1390) Chaucer CT.NP.(Manly-Rickert)B.4261).

“The wind ... contrary... made them stay in a city that **stood** very **handsomely** up on the side of the haven.”

Adverbial > *[The wind ... contrary... made them stay in a city that stood very in a handsome way up on the side of the haven]

Predicative > [The wind ... contrary... made them stay in a city that stood very handsomely up on the side of the haven]

- (89) Bei schullen be ... cursed & taken to prison zif þei stonden sadde in goddis cause (c1430(c1400) Wycl.Prelates (Corp-C 296)79).

“they shall be ... cursed and taken to prison if they stand steadfastly in God’s cause”

Adverbial > *[they shall be ... cursed and taken to prison if they stand in a steadfast way in God’s cause]

Predicative > [they shall be ... cursed and taken to prison if they stand [being] steadfast in God’s cause]

- (90) So **sadly** he **sat** in that thought that alle thei were troubled and lefte theire mete (a1500(?c1450) Merlin (Cmb Ff.3.11)226).

“So **sadly** he **sat/was sitting** in that thought that all of them were troubled and left their meal.”

Adverbial > *[So in a sad way he sat/was sitting in that thought that all of them were troubled and left their meal]

Predicative > [So [being] sad he sat/was sitting in that thought that all of them were troubled and left their meal]

4.2.2.1.1.3 Stative verbs

The term *stative verb* has been used for the description of a type of verb that describes a state rather than an action (Quirk, Greenbaum, Leech & Svartvik 1985: 178). These verbs are less liable to combinations with dynamic words

such as adverbs and more liable to combinations with nouns or adjectives, i.e. stative words too (Kjellmer 1984: 8-14). Based on these arguments, it would not be expected to find stative verbs followed by adverbs, but by adjectives, because adverbs cannot express the manner in which a state is developed. Stative verbs in our data are followed by *-ly* words that are morphologically marked as adverbs, but a closer look at the data shows that these *-ly* words do not behave like adverbs do, and instead behave like predicative complements that typically follow stative adverbs. The verbs included in these examples have been classified as *stative*, because the senses of the verbs used in the examples do not involve an action. The examples of this case are the following:

- (91) Hien frowned; his lower lip **protruded wetly**, like a pouting baby's...
 Adverbial > *[Hien frowned; his lower lip protruded in a wet way, like a pouting baby's]
 Predicative > [Hien frowned; his lower lip protruded [being] wet, like a pouting baby's]
- (92) Her thoughts **flapped worriedly** about, from the bullet in Clovis's side to Mercy Hospital.
 Adverbial > *[Her thoughts flapped in a worried way about, from the bullet in Clovis's side to Mercy Hospital]
 Predicative > [Her thoughts flapped [being] worried about, from the bullet in Clovis's side to Mercy Hospital]
- (93) The day of the Sussex Rally, 21 March, **dawned snowily**, but proceeded well, with classes by Betty Hartley and Pat Shere.
 Adverbial > *[The day of the Sussex Rally, 21 March, dawned in a snowy way, but proceeded well, with classes by Betty Hartley and Pat Shere]
 Predicative > [The day of the Sussex Rally, 21 March, dawned [being] snowy, but proceeded well, with classes by Betty Hartley and Pat Shere]

The *-ly* words in the previous examples do not express adverbial meaning, because the verbs that precede them do not involve movement or action controlled by an agentive subject. The subjects in these sentences are semantically classified as EXPERIENCER or AFFECTED, because the *-ly* words characterizing them by referring to their state or physical property and the

subject of the sentences cannot control whether they carry out the action expressed by the verb or not. The verb in (91) does not refer to a mental process or to an action, but to the state of the subject that is wet. In (92), the *-ly* word refers to the subject to whom the thought belongs and not directly to the thought. The subject gets agitated and is nervous while this happens. In (93), it is the day that is snowy when it dawned (there is no snowy way of dawning, because it is an uncontrollable weather condition).

In the OE data sample, *-ly* words combined with stative verbs also refer to the subject and block the adverbial interpretation. In (94), there is no white way of shining, and *hwite* ‘whitely’ refers to the appearance of the subject or, in the the sentence, it could refer to a more peripheral meaning such as ‘innocent’. Regardless of the meaning, there is no white or innocent way of shining and *whitely* characterizes only the subject. The word *hate* ‘hotly’ in (95) refers to the high temperature of the bath, not to a hot way of welling, and *sadly* in (96) refers to the state of the bishop who feels sad because he suffers, not to a way of suffering.

- (94) hwæt sæcge we þæt his clapæs tacnoden ... buton þa halgæ lāpungæ, þæt is, alræ haligre heap and samnung? sopllice þa gædering bið hwit iworden þurh fulluhtes bæðe, and heo **scinæð hwite and brihte** beforen Godes eagum þurh monie halige dæde (HomU 2 129).

“Truly the gathering will become white through the bath of baptism and it **will shine whitely and brightly** begore God’s eyes through many holy deeds.”

Adverbial	>	*[Truly the gathering will become white through the bath of baptism and it will shine in a white way and in a bright way begore God’s eyes through many holy deeds]
Predicative	>	[Truly the gathering will become white through the bath of baptism and it will shine [being] white and bright begore God’s eyes through many holy deeds]

- (95) bæð **hate weol** (Jul 581).

“the bath **was welling hotly**”

Adverbial	>	*[the bath (= body of water) was welling in a hot way]
Predicative	>	[the bath (= body of water) was welling [being] hot]

- (96) & se bysceop hefelice sargade be þam fyllre & minre forwyrde; forþon
be he me mid syndrige lufan lufade (Bede 5 (O) 6.402.6).

“The bishop **sadly suffered** for my fall and destruction because he
loved me with a special love”

Adverbial > *[The bishop in a sad way suffered for my fall
and destruction because he loved me with a
special love]

Predicative > [The bishop [being] sad suffered for my fall
and destruction because he loved me with a
special love]

ME subject-related *-ly* words in combination with stative verbs also refer to
properties of the subject such as temperature and weight in (97) and (98).
However, there is an example that is very similar to one of the examples in
PDE: example (99) below and example *More than two million young
Vietnamese on both sides died innocently and unnecessarily because of foreign
political theories* from the PDE data sample. Both contain the verb *die* and the
-ly words, namely *sinfully* and *innocently*, refer to the subject in both. These *-
ly* words characterize the subject at the moment of dying, not a way of dying.

- (97) Whane þe sone **shane hayte** & bright (c1400 St.Anne(1)(Min-U
Z.822.N.81)2339).

“when the sun **shone hotly** and bright”

Adverbial > *[when the sun shone in a hot way and bright]

Predicative > [when the sun shone [being] hot and bright]

- (98) Yf it so be þat þe oon side of þe wounde **hange heuily** & saggyng
from þat opir (c1475(1392) *MS Wel.564 (Wel 564)65b/a).

“If it were so that it on one side of the wound **were hanging heavily**,
and sagging on the other”

Adverbial > *[If it were so that it on one side of the wound
were hanging in a heavy way, and sagging on
the other]

Predicative > [If it were so that it on one side of the wound
were hanging [being] heavy, and sagging on
the other]

- (99) Þe kaytif ... **corsedlich deied** (a1400 Siege Jerus.(1) (LdMisc
656)1330).

“the captive ... **died sinfully**”

Adverbial	>	*[the captive ... died in a sinful way]
Predicative	>	[the captive ... died [being] sinful]

4.2.2.1.1.4 Copulative verbs

Copulative verbs have been defined as linker verbs whose main function is that of joining a subject and a subject complement (Quirk, Greenbaum, Leech & Svartvik 1985: 129-130). Subject complements that follow copulative verbs are typically realized by adjective or noun phrases, but never by adverb phrases. However, the examples of subject-relatedness found in our data include subject-related *-ly* words that follow copulative verbs, and their morphology does not match their function. This could be considered as the most relevant combination that subject-relatedness presents, since this shows that the suffix *-ly* is not used with derivational purposes and that, even if these *-ly* words are morphologically marked as adverbs, they are not adverbs:

- (100) Last week we **felt dizzily** like a party to some of Wall Street's deeper complexities.

Adverbial	>	*[Last week we felt in a dizzy way like a party to some of Wall Street's deeper complexities]
Predicative	>	[Last week we felt [being] dizzy like a party to some of Wall Street's deeper complexities]

- (101) Then she **appeared prettily** in the light of day, blinking like a child, shaking her shining.

Adverbial	>	*[Then she appeared in a pretty way in the light of day, blinking like a child, shaking her shining]
Predicative	>	[Then she appeared [being] prettily in the light of day, blinking like a child, shaking her shining]

- (102) The nation **turned gratefully** to Warren G. Harding, whom no one ever thought of as an intellectual (though Harding was not hostile to the breed; he appointed Taft Chief Justice of the United States). The chairman of the Republican Convention that had nominated Harding was Henry Cabot Lodge. "It was delightful," wrote H. L. Mencken in his convention coverage, "to observe the sardonic glitter in Lodge's eye, his occasional ill-concealed snort...."

Adverbial	>	*[The nation turned in a grateful way to Warren G. Harding, whom no one ever thought of as an intellectual (though Harding
-----------	---	--

		was not hostile to the breed; he appointed Taft Chief Justice of the United States)]
Predicative	>	[The nation turned [being] grateful to Warren G. Harding, whom no one ever thought of as an intellectual (though Harding was not hostile to the breed; he appointed Taft Chief Justice of the United States)]

The *-ly* words following these copulative verbs are not compatible with their adverbial interpretation and allow only predicative interpretation. In (100), *dizzily* is used to describe the feeling or sensation that has been experienced, as *feel* in this sentence means ‘to perceive or experience a sensation or state’ so that any action compatible with the adverbial interpretation of the *-ly* word is carried out. The meaning of *appear* in (101) is ‘to have an appearance’, ‘to seem’, or ‘to look’ and does not allow the adverbial interpretation to express that the subject seems or looks in a pretty way. Instead, it refers to the physical aspect of the subject who looks pretty in the light of day. Finally, the meaning of *turn* in (102) is ‘to become’ and, to understand this sense of the verb, it is necessary to consider the information given in the rest of the paragraph to which the example belongs. This sentence is part of a magazine report about politics where Harding is represented as the hope of citizens who were expecting a reliable politician. Thus, *gratefully* in (102) refers to the state of the people in the nation and not to a way of turning in the sense ‘moving the body in a direction’. The verbs in all these examples express only the relation between the subjects and their subject predicatives that are unusually realized by *-ly*-marked units. These *-ly* words refer to states of the subjects instead of ways of doing actions and, therefore, the suffix *-ly* does not contribute to the meaning of *dizzily*, *prettily*, and *gratefully*. The use of *-ly* suffixation in these units could be attributed to: i) the use of *-ly* as a stylistic feature that makes the words sound more poetic as examples (100), (101) and (102) are part of fictional texts, and ii) a process of language economy, since the use of these *-ly* words allows to use only one word where a more complex clause would be needed. Here, as in previous sections, it can also be observed that these *-ly* words are more obligatory than adverbs. Adverbs are not obligatory and their deletion does not change the meaning of the sentence. However, unless an important piece of information in the original sentence would be omitted, unlike adverbs, these *-ly* words cannot be deleted. Therefore, these subject-related *-ly* words do not behave as adverbs of MANNER and can be omitted, but as adjectives that characterize the subject and are compulsory clause constituents. In (103) and (104) below, *obscurely* refers to the comment that was vague and *thoughtfully*

refers to the state of the person. If the suffix *-ly* is removed, the meaning of the sentence remains unchanged and these words have the same function and meaning as with the suffix. Therefore, if *obscure* and *thoughtful* replace *obscurely* and *thoughtfully* in (103) and (104), respectively, the meaning of the sentences is unaltered, even though the *-ly* words after the copulative verbs have been replaced by their adjectival bases.

(103) 'Where have you been, sir?' Adam asked politely. (A good-mannered boy, just out of school.) 'Only Japan. About ten years ago.' 'The Japanese are a very clean people,' Mrs Hobbs said, it **seemed obscurely**.

Adverbial > *['Where have you been, sir?' Adam asked politely. (A good-mannered boy, just out of school.) 'Only Japan. About ten years ago.' 'The Japanese are a very clean people,' Mrs Hobbs said, it seemed in an obscure way.]

Predicative > ['Where have you been, sir?' Adam asked politely. (A good-mannered boy, just out of school.) 'Only Japan. About ten years ago.' 'The Japanese are a very clean people,' Mrs Hobbs said, it seemed obscure.]

(104) She smiled at me and sat down and **remained thoughtfully** for a while with her chin resting on her hand.

Adverbial > *[She smiled at me and sat down and remained in a thoughtful way for a while with her chin resting on her hand]

Predicative > [She smiled at me and sat down and remained thoughtful for a while with her chin resting on her hand]

As in the previous examples, *permanently* in (105) refers to the state of the subject, because in the OE example *fæste* 'permanently' refers to the memory that will remain over time. In this case, *permanently* can also be replaced by *permanent* without change in the sentence meaning. Example (106) presents a different syntactic structure. Due to the lack of syntactic order in OE, the verb appears at the end of the sentence, but the most important feature in this example is the structure of coordination of *abominably* and *full of bitterness* because, even if *abominably* has taken *-ly* suffixation, it characterizes the subject and performs the same function as *full of bitterness*. In this example, *abominably* does not express a way of carrying out an action but, together with *full of bitterness*, it refers to the appearance of the mouth that is abominable.

- (105) se papa heht gewrit on his byrgenne awritan, ðæt ... seo gemynd his wilsumnisse ðurh ealle **woruld fæste** awunode (Bede 5 7.406.4).

“the pope ordered an inscription to be written on his tomb so that...the memory of his devotion **remained permanently** forever”

Adverbial > *[the pope ordered an inscription to be written on his tomb so that ... the memory of his devotion remained in a permanent way forever]

Predicative > [the pope ordered an inscription to be written on his tomb so that ... the memory of his devotion remained permanent forever]

- (106) para muð **awyrgydlice** & biternysse full **ys** byð quorum os maledictione et amaritudine plenum est (PsGlC 13.3).

“their mouth **abominably** and full of bitterness **is** and will be”

Adverbial > *[their mouth in an abominable way and full of bitterness is and will be]

Predicative > [their mouth abominable and full of bitterness is and will be]

As in the combinations with stative verbs (see §4.2.2.1.1.3), similarities can be observed between (101) above and (107) below. Both examples contain the same verb and the *-ly* words following the verb do not express a way of appearing. In the case of (107), the predicative interpretation is supported by the rest of the sentence where the appearance of the subject is specified.

- (107) Mary dede **appere** ... to hem both two, **Angrely** & wyth a brynnynge chere (1447 Bokenham Sts.(Arun 327)5832).

Mary **appeared** ... to both of them, **angrily** and with a burning face

Adverbial > *[Mary appeared ... to both of them, angrily and with a burning face]

Predicative > [Mary appeared ... to both of them, angrily and with a burning face]

4.2.2.1.2 Special cases

4.2.2.1.2.1 The morphology of adjectival bases

One of the properties that can be considered in the description of the examples is the suffix used on the adjectival bases of these *-ly* words. There seems to be a relation between the affix used in the creation of the adjectival base from which the *-ly* word is derived and the ability of this *-ly* word to convey adverbial meaning. In adjectival bases where more than one affix is possible, e.g.

interested/interesting, delightful/delighted or *embarrassedly/embarrassingly*, one of the bases is more liable to derive adverbs than the other. Examples of this distinction are given in:

- (108) The door to the library opened to admit a young man whose physical resemblance to the Earl was marked. Intelligent gray eyes appraised Ransome momentarily before the newcomer crossed the distance that separated him from his companions. He walked with a slight limp, Ransome **observed interestedly**. John Falconer was a year or two shy of thirty

Adverbial > *[He walked with a slight limp, Ransome observed in an interested way. John Falconer was a year or two shy of thirty]

Predicative > [He walked with a slight limp, Ransome observed [being] interested. John Falconer was a year or two shy of thirty]

- (109) A century ago the very latest in canoe technology and fashion was on exhibit at the annual congress of the American Canoe Association, held at Willsboro Point on Lake Champlain. A woman who attended **wrote delightedly** of the "fairy fleet, flying about us in the wind with long swallow-curves, or along the shore..."

Adverbial > *[A woman who attended wrote in a delighted way of the "fairy fleet, flying about us in the wind with long swallow-curves, or along the shore..."]

Predicative > [A woman who attended wrote [being] delighted of the "fairy fleet, flying about us in the wind with long swallow-curves, or along the shore..."]

- (110) The day that Lesbia asked him that surprise question, not the usual "How much do you like me?," but the unpublished "How much do you love me?," Catullus (since in our culture love is a man's thing and among men) **answered embarrassedly** in verse: " I love you ... as much as a father can love his son ... as much as a father-in-law can love his son-in-law ... "

Adverbial > *[The day that Lesbia asked him that surprise question, not the usual "How much do you like me?," but the unpublished "How much do you

love me?," Catullus (since in our culture love is a man's thing and among men) answered in an embarrassed way in verse: "I love you ... as much as a father can love his son ... as much as a father-in-law can love his son-in-law ..."]

Predicative > [The day that Lesbia asked him that surprise question, not the usual "How much do you like me," but the unpublished "How much do you love me?, "Catullus (since in our culture love is a man's thing and among men) answered [being] embarrassed in verse: "I love you ... as much as a father can love his son ... as much as a father-in-law can love his son-in-law ..."]

The meaning of an adjective created by *-ed* suffixation differs from the meaning of an adjective created from the same base by *-ing* suffixation. The change in meaning can be observed in (108), if *interestedly* is replaced by *interestingly*, since *interestedly* refers to the state of the subject while observing, but *interestingly* refers to the way the subject observes, which can be described as having an interesting attitude. The same happens in (109), where *delightedly* refers to the state of the subject who writes about something she has interest in, but *delightfully* would refer to the way of writing that creates a pleasant text for the reader or causes delight in the reader. In (110), *embarrassedly* is participant-oriented and therefore characterizes the subject (there is no embarrassed way of answering, it refers to how the subject feels when answering since, from the previous parts of the sentence, it seems that the subject answers an uncomfortable or uneasy question). Conversely, if the *-ly* word used is *embarrassingly*, it could mean that the subject answers in a way that causes confusion in the addressee, but *embarrassedly* does not allow the adverbial interpretation. As previously reported (Jiménez-Pareja 2022), this evidence supports the claim that adjectival bases created with the suffix *-ed* are more liable to derive subject-related *-ly* words than their counterparts derived with suffixes such as *-ful* or *-ing* that can derive manner adverbs. This evidence is in line with previous research reporting that *-ly* suffixation of adjectives derived with the suffix *-ing* has become really productive since the 14th century and is still productive process in PDE (Killie 1998).

4.2.2.1.2.2 The characterization of syntactic objects

One of the features observed during the collection of the OE and ME data is the ability of the *-ly* words to characterize the syntactic object in the sentence instead of the subject. The number of cases of object characterization is lower than the number of cases of subject characterization. Still, the relevance of this feature cannot be ignored, as it entails characterization of nominal elements by *-ly*-marked units classified as adverbs. Some of the examples where this feature appears are the following:

- (111) *ðu gestaðoladest eorðan swiðe wundorlice & fæstlice, þæt heo ne helt on nane healfe ne on nanum eorðlicum þinge ne stent* (Bo 33.81.10).
“thou have established the earth very **wondrously** and **firmly** so that it does not tilt to either side or does not stand on any earthly thing”

Example (111) of the OE data sample shows how the *-ly* word *firmly* characterizes the syntactic object that precedes it in the sentence, namely *the earth*. The adverbial interpretation of *firmly* is blocked due to the incompatibility between *firmly* and *establish* (*firmly* here does not refer to a firm manner of establishing something meaning ‘with determination’, but to a property of the earth that is characterized as solid; this interpretation is reinforced by the last part of the sentence). The *-ly* word that is in coordination with *firmly*, specifically *wondrously*, could be considered a case of subject-orientation (there can be a wondrous or wonderful way of establishing the earth, but it can also refer to the wondrous aspect of the earth after it was established).

The examples below are part of the ME data sample, and they display the same type of modification as (111). The *-ly* words *brightly*, *thickly*, *darkly*, *clearly* and *sadly* refer to features of the syntactic object, because their adjectival bases block the adverbial interpretation of their *-ly* counterparts and refer to the physical appearance and the state of the objects. In the case of *brightly* and *splendidly*, the reference is to the complexion of the object, which can be defined as ‘having a healthy glow’ and ‘marked by much grandeur’. The *-ly* words in (113) refer to the physical appearance of the object that is perceived as thick and dark at a given time. *Sadly* in (114) characterizes *his fellows* (there is no sad way of finding). In (114), the incompatibility between the meaning of the *-ly* word and the meaning of the verb is also present (there could be a sad way of coming meaning with a specific movement that shows the sadness of the subject, but there is no sad way of finding, so the only element modified by *sadly* is the syntactic object). The adjectival meaning of the *-ly* words in these examples results from the incompatibility of *-ly* and the verb due to the

intensive relation between the adjectival bases and their superordinate nominals.

- (112) Crist wolde her on worlde sceawen his a3ene ansyne ... swa **beorhtlice** & swa **þrymlice** (c1175(?OE) Bod.Hom.(Bod 343)110/12).
“Christ would show his appearance/face here to/in the world ... so **brightly** and so **splendidly**”
- (113) Sum time thou shalt see me thikkeliche and derkeliche ... and sum time cleerliche (c1450 Pilgr.LM (Cmb Ff.5.30)98).
“Sometimes thou shalt see me **thickly** and **darkly** ... and sometimes clearly.”
- (114) He came to hys herbergye And fonde hys felowes **heuelye** (a1500(?a1475) Guy(4) (Cmb Ff.2.38)3608).
“He came to his lodgings and found his fellows **sadly**”

In subject-orientation, two conditions were reported to favor the characterization of the subject, namely the lexico-semantic compatibility of the *-ly* adverb and the subject that maintain an intensive relation, and the position of the *-ly* adverb in the sentence. The first condition was considered to be valid, while the second was discarded because some adverbs can be subject-oriented regardless of their position in the sentence (Valera 1998). In relation to the previous examples, it could be argued that sentence position favors the type of reference of the *-ly* words, that is to say, a different position of the *-ly* word can change the element in the sentence this word refers to. If the distribution of the *-ly* word in (114) changes, the reference of the *-ly* word will change as well. Thus, the *-ly* word in the sentence *He came to his lodgings and sadly found his fellows* does not have the same type of reference as *He came to his lodgings and found his fellows sadly*:

The type of characterization in the previous examples takes subject-relatedness beyond the characterization of syntactic subject that has been found to occur in every period of English and opens new avenues of research for this type of modification in PDE.

4.2.2.1.2.3 Polysemy and types of subject-relatedness

In OE and ME, the ability of some *-ly* adverbs to be subject-related depends on the sense of the *-ly* word or the verb that is used. Thus, it could be argued that polysemy, in the standard sense of the term (cf. Valera 2020 for a review) plays a role in the ability of OE and ME *-ly* adverbs to express subject-relatedness

since some senses of the adverbs allow subject-relatedness, but others allow the adverbial interpretation.

One of the adverbs that can be classified as subject-related or not according to its meaning in the sentence is *fæste*. The DOE provides four senses of *fæste*, three of which display subject-relatedness in the examples obtained, and one allows the expression of manner. The senses of *fæste* as ‘not to be easily moved or shaken’, ‘to remain valid’ referring to a statement, and ‘to remain permanent’ referring to memory, do not allow adverbial interpretation as seen in (115), (116) and (117) below. These senses denote properties of the subject that block the adverbial interpretation for the lack of compatibility between the verb and the adverb. However, when *fæste* means “‘deeply’ in relation to the act of sleeping”, it can express manner, as in (118), where the meaning of *fæste* is not compatible with the subject (the subject in the example cannot be characterized as ‘deep’), but instead there is a deep way of sleeping.

- (115) þonne **ætstent** þæt hus **fæste**, forþan þe hit wæs getimbrod on þam stane (ÆHomM 12 276).

“then **stood** the house **firmlly** because it was built on the rock”

Adverbial	>	*[then stood the house in a firm way because it was built on the rock]
Predicative	>	[then stood the house [being] firm because it was built on the rock]

- (116) getiðode he ðæs for Christes lufan ... and his cwyde **fæste stode** (Ch 939 20).

“he granted that for Christ’s love ... and his statement **stood fastly**”

Adverbial	>	*[he granted that for Christ’s love ... and his statement stood in a valid way]
Predicative	>	[he granted that for Christ’s love ... and his statement stood [being] valid] ²⁰

- (117) se papa heht gewrit on his byrgenne awritan, ðæt ... seo gemynd his wilsumnisse ðurh ealle **woruld fæste** awunode (Bede 5 7. 406.4)

“the pope ordered an inscription to be written on his tomb so that ... the memory of his devotion **remained permanently** forever”

Adverbial	>	*[the pope ordered an inscription to be written
-----------	---	---

²⁰ Although the literal translation of *fæste* could be ‘fast’, the meaning that applies to the examples corresponds to ‘valid’, so the paraphrase uses the PDE form *valid*.

- on his tomb so that ... the memory of his devotion remained in a permanent way forever]
- Predicative > [the pope ordered an inscription to be written on his tomb so that ... the memory of his devotion remained permanent forever]
- (118) þænne he wiste þæt menn **fæste slæpen**, he wolde on dihlum stowum hine georne gebiddan (Leof 23).
 “when he knew that people **were sleeping soundly**, he would eagerly pray in secret places”
- Adverbial > [when he knew that people were sleeping in a sound/deep way, he would eagerly pray in secret places]
- Predicative > *[when he knew that people were sleeping being sound/deep, he would eagerly pray in secret places]

Another example of how meaning influences subject-relatedness in OE is the adverb *hefige*. In order to interpret this adverb, it is necessary to consider the meaning of the adverb, but also the meaning of the verb that precedes the adverb. When *hefige* is ‘painfully’, as in (119), the adverbial meaning is not possible, but it is due to the semantic incompatibility between the verb and the meaning of the adverb, because the meaning of the verb is ‘to become’ and it is not compatible with the expression of MANNER. Conversely, *hefige* as ‘with difficulty’ allows the adverbial interpretation when the verb ‘go’ implies ‘to reach a place’. Thus, *hefige* blocks the adverbial meaning in the sense ‘painfully’ and in combination with certain verbs, but it allows the adverbial interpretation in the sense ‘with difficulty’.

- (119) eft ge on heortan hokedon inwit, worhton wraðe; forþan ðæs wite eft on eowre handa **hefige geeode** (PPs 57.2).
 “Again you conceived wickedness in your hearts and plotted wrath; for that reason the punishment **went painfully** in your hands”
- Adverbial > *[Again you conceived wickedness in your hearts and plotted wrath; for that reason the punishment went in a painful way in your hands]
- Predicative > [Again you conceived wickedness in your

hearts and plotted wrath; for that reason the punishment went painful in your hands]

- (120) Iesus ait discipulis suis quam difficile qui pecunias habent in regnum dei introibunt ðe hælend cwæð to ðegnum his swiðe unaðe ꝛ hefige ðaðe gistrione habbas in rice Godes ingað (MkGl (Ru) 10.23).

“The Saviour said to his disciples that very uneasily and **with difficulty/hardly** will those who have treasures **go** in God’s kingdom”

Adverbial > [The Saviour said to his disciples that very uneasily and with difficulty will those who have treasures go in God’s kingdom]

Predicative > *[The Saviour said to his disciples that very uneasily and [being] difficult will those who have treasures go in God’s kingdom]

Examples of this behavior in ME are adverbs such as *angerly* and *derkeliche*. For the former, the dictionary provides the sense ‘ill-temperedly’ and the meaning ‘cruelly, sorely and severely’. The first does not allow adverbial interpretation in (121), due to the sense of the adverb and to the sense of the verb it combines with. The meaning of the verb in (121) is ‘look or seem’, so *angerly* is semantically not compatible with *appeared* and refers to the subject’s aspect. In (122) and (123), the meaning of *angerly* is compatible with the verb and *angerly* expresses MANNER. In (122), the subject answers in anger or showing anger, and in (123), the meaning of *angerly* is ‘severe’, which is compatible with the verb in the sentence and the expression of adverbial meaning.

- (121) Mary dede **appere** ... to hem both two, **angrely** & wyth a brynnyng chere (1447 okenham Sts.(Arun 327)5832).

“Mary **appeared** ... to both of them, **angrily** and with a burning face”

Adverbial > *[Mary appeared ... to both of them, in an angry way and with a burning face]

Predicative > [Mary appeared ... to both of them, angry and with a burning face]

- (122) The sayde Mayster Harry right shortely, weywardly, and **angerly answered** ((1447-8) Shillingford82).

“The said master Harry **answered** very shortly, waywardly and **angrily**.”

Adverbial > [The said master Harry answered very

		shortly, waywardly and in an angry way.]
Predicative	>	*[The said master Harry answered very shortly, waywardly and [being] angry]

- (123) Gret wrong ye do, To worche this man so myche woo, Or **pynen** hym so **angerly** (a1425(?a1400) RRose (Htrn 409)3511).

“Much wrong ye do, to do this man so much woe, or **torment** him so **severely**”

Adverbial	>	[Much wrong ye do, to do this man so much woe, or torment him so in a severe way]
-----------	---	--

Predicative	>	[Much wrong ye do, to do this man so much woe, or torment him [being] so severely]
-------------	---	---

The adverb *derkeliche* in (124) and (125) means ‘obscurely’ and, figuratively, ‘vaguely’ when it refers to speaking or writing. The first sense blocks the adverbial interpretation because, like *angerly* in (121), it refers to the appearance of the syntactic object. The second sense allows adverbial interpretation because *vaguely* is compatible with a way of speaking and does not maintain an intensive relationship with the subject.

- (124) Sum time thou **shalt see** me **thikkeliche** and **derkeliche** ... and sum time cleerliche (c1450 Pilgr.LM (Cmb Ff.5.30)98).

“Sometimes thou **shalt see** me **thickly** and **darkly** ... and sometimes clearly.”

Adverbial	>	*[Sometimes thou shalt see me in a thick way and in a dark way ... and sometimes in a clear way]
-----------	---	--

Predicative	>	[Sometimes thou shalt see me thick and dark ... and sometimes clear]
-------------	---	---

- (125) Plinus and also orocius **speken** ... more openly þan oþer, þat speke þerof more **derkelyche** ((a1398) *Trev.Barth.(Add 27944)173b/a).

“Pliny and also Orosius **speak** ... more openly than others, who speak of this more **vaguely**.”

Adverbial	>	[Pliny and also Orosius speak ... more openly than others, who speak of this in a vaguer way]
-----------	---	--

Predicative	>	*[Pliny and also Orosius speak ... more openly than others, who speak of this [being] vaguer]
-------------	---	---

The behavior of *-ly* words in OE and ME anticipates one of the features of subject-relatedness in PDE because two types of subject-relatedness, namely intrinsic and extrinsic subject-relatedness, have been described for these *-ly* words in PDE (see Valera 2014). According to the sense of the *-ly* word in a given example within the data sample, there are cases of intrinsic and extrinsic subject relatedness. The former type is present in *-ly* words that can never express adverbial meaning because the stative sense denoted by their adjectival bases blocks the adverbial interpretation of the resulting *-ly* word. The latter type occurs in *-ly* words formed from adjectival bases with dynamic senses that allow adverbial interpretation in combination with some verbs.

Intrinsic subject-relatedness is present in color adjectives and other adjectives denoting a property of the subject that cannot be controlled, e.g. a physical property like ‘being fat’ or ‘wet’. In (126) and (127) below, *fatly* and *wetly* are used to characterize the subject as it refers to the physical appearance of rodents and lawn. The adjectival bases *fat* and *wet* are semantically not compatible with the expression of MANNER after *-ly* suffixation, because adjectives refer to the constitution and physical state of people or animals, and there is no fat or wet way of carrying out an action. Other adjectives, such as *wounded* as the base for *-ly* in (128), have several senses, but they all block the adverbial interpretation of the resulting *-ly* word. When the sense of *wounded* is ‘suffering from physical harm or injury’, there is no semantic compatibility between the *-ly* word and any verb, and the adverbial interpretation is blocked. If the meaning of *wounded* is ‘feeling damaged’, the adverbial interpretation is blocked because this meaning is not compatible with the expression of MANNER (there is no wounded way of acting and the adjective refers to an uncontrollable state of the subject).

- (126) Bucktoothed rodents that sometimes **galloped fatly** across the road from one hayfield to another.

Adverbial > *[bucktoothed rodents that sometimes galloped in a fat way across the road from one hayfield to another]

Predicative > [bucktoothed rodents that sometimes galloped [being] fat across the road from one hayfield to another]

- (127) Russell's thick green lawn **glittered wetly** under a spidery skin of moonlight.

Adverbial > *[Russell's thick green lawn glittered in a wet way under a spidery skin of moonlight]

Predicative > [Russell's thick green lawn glittered [being]
wet under a spidery skin of moonlight]

(128) No one in the house ever asks about it. Not a peep is heard from her sisters, though Sophie **skulks woundedly**.

Adverbial > *[No one in the house ever asks about it. Not a peep is heard from her sisters, though Sophie skulks in a wounded way.]

Predicative > [No one in the house ever asks about it. Not a peep is heard from her sisters, though Sophie skulks being wounded.]

Extrinsic subject-relatedness emerges as a result of the semantic incompatibility between a specific verb and an *-ly* word. It is a feature of some combinations where the sense of the adjectival base activated in the example blocks the adverbial interpretation of the resulting *-ly* word, because that sense is lexically compatible with the subject but not with the verb. Extrinsic subject-relatedness can be observed in examples such as (129) below, showing incompatibility between the meaning of *broken* and the meaning of *stand* in its past form *stood*. *Broken* blocks the adverbial interpretation because it means ‘separated into parts’, so the resulting *-ly* word is not compatible with the verb. However, in (130) *broken* means ‘having a continuity interrupted’ and is compatible with the expression of MANNER and, therefore, with the verb as there may be a discontinuous or interrupted way of weeping. In (131) and (132), a contrast can be made between literal ‘low temperature’ and figurative ‘showing a lack of enthusiasm’. The literal sense of *cold* in (131) does not allow adverbial interpretation of the *-ly* word, as it refers to a property of the subject, specifically the snow flurries that are cold. Conversely, *cold* in (132) refers to the attitude of the subject when the action is developed, as the subject speaks in a distant way.

(129) A shell of wall **stood brokenly** among the rubble, exposing all that was left of the inside of a house – peeling wallpaper, taps for a bath, a crumbled fireplace.

Adverbial > *[A shell of wall stood in a broken way among the rubble, exposing all that was left of the inside of a house – peeling wallpaper, taps for a bath, a crumbled fireplace.]

Predicative > [A shell of wall stood [being] broken among

the rubble, exposing all that was left of the inside of a house – peeling wallpaper, taps for a bath, a crumbled fireplace.]

- (130) Momma **wept brokenly**, squirming into the pillow
 Adverbial > [Momma wept in a broken way, squirming into the pillow]
 Predicative > *[Momma wept [being] broken, squirming into the pillow]
- (131) As a few snow flurries **touched coldly** against her cheeks and eyelids and lips, she wondered what to do next
 Adverbial > * [As a few snow flurries touched in a cold way against her cheeks and eyelids and lips, she wondered what to do next]
 Predicative > [As a few snow flurries touched coldly against her cheeks and eyelids and lips, she wondered what to do next]
- (132) “Yeah, well, considering that our last conversation wasn’t particularly pleasant, I thought it would be better for Pete to handle updates,” Myka **stated coldly**, not a hint of warmth in her face
 Adverbial > [“Yeah, well, considering that our last conversation wasn’t particularly pleasant, I thought it would be better for Pete to handle updates,” Myka stated in a cold way, not a hint of warmth in her face]
 Predicative > *[“Yeah, well, considering that our last conversation wasn’t particularly pleasant, I thought it would be better for Pete to handle updates,” Myka stated [being] cold, not a hint of warmth in her face]

The behavior of subject-related *-ly* words in the various periods of English shows some similarities because adverbs such as *angerly* and its PDE form *angrily* display the same behavior in ME and PDE. Having the same sense, the ability of *angerly* and *angrily* to be subject-related or manner adverbs depends on their combination with a specific verb, as shown in the previous examples.

Based on the examples of subject-relatedness, the intrinsic type of subject-relatedness seems to be always determined by the adjectival base involved in the creation of the subject-related *-ly* word. The meaning of these adjectival bases is not compatible with the expression of MANNER and lacks in compatibility with the verb when the subject-related *-ly* word is formed. The extrinsic type of subject-relatedness results from the semantic incompatibility between the sense of the adjectival base of the *-ly* word and the sense of the verb in a given combination.

This section shows the relevance of senses in the ability of OE and ME adverbs to be subject-related, and the relation of this feature with the types of subject-relatedness in PDE. Of all the subject-related *-ly* adverbs in the data sample, the extrinsic type of subject-relatedness is most common. It is worth mentioning that all the adjectives in the data sample display stative senses, so they block the adverbial interpretation of the *-ly* words formed from that adjectival base and produce subject-related *-ly* words.

4.2.2.1.3 Stative adjectives and *-ly* suffixation

One of the main properties that was noticed during the data analysis is that all the adjectival bases of the *-ly* words are stative. Previous research on *-ly* adverbs that premodify adjectives noted that stativity may have an influence on the interpretation of the *-ly* adverb (Díaz-Negrillo 2014: 469-471). According to this research, “head adjectives that are premodified by “*-ly*” adverbs and are stative or are used statively may inhibit the adverbial reading so that the only remaining denotation is the predicative relation with the co-occurring noun” (Díaz-Negrillo 2014: 470). Besides, a contrast can be observed when the same premodified head adjective is used dynamically and allows the adverbial interpretation. Based on this, stative adjectives are more liable to derive subject-related *-ly* adverbs. However, it has been hypothesized that stative adjectives do not have the ability to derive adverbs and, therefore, take *-ly* suffixation (Kjellmer 1984), this type of suffixation raises an important question: what are the stative adjectival bases that can take this suffixation. In order to answer this question, the following parts of this section present the analysis of semantic and syntactic conditions that have been considered relevant in the potential of adjectives to derive adverbs. These semantic conditions are the properties [CONTROL] by the subject and by the *-ly* words, and [TEMPORARINESS] applied to the *-ly* word, while the syntactic condition analyzed is the position of the *-ly* words in the sentence.

Of all the stative adjectival bases found in the data and allowing this suffixation, there is one adjective that never allows the adverbial interpretation

of the resulting *-ly* word regardless of sense. This is the case of the stative adjectival base of *wetly* which amounts to a considerable number of subject-related *-ly* words in the data. As *wetly* best illustrates the behavior of stative adjectival bases that allow *-ly* suffixation, these words will be referred to as the *wetly* type.

The main feature to consider in the analysis of the *wetly* type is that the stative adjectival bases involved refer to properties of the subject that cannot be controlled. Therefore, the analysis presented here is divided into three parts according to the main clause constituents involved in this analysis: §4.2.2.1.3.1 focuses on the semantic role of the subject, §4.2.2.1.3.2 analyzes the relevance of the position of the *wetly* type in the sentence, and §4.2.2.1.3.3 describes specific features of the bases of the *wetly* type in contrast with other *-ly* words.

4.2.2.1.3.1 The subject

In the literature about the relevant features involved in the ability of adjectives to derive adverbs by *-ly* suffixation it has been argued that agentive subjects usually occur in combination with adverbs because this type of subjects have the ability to control the way the action expressed by the verb is developed as indicated by the adverb. Based on this argument, it would be expected that adverbs following verbs that combine with agentive subjects could express adverbial meaning or, at least, be subject-oriented, i.e. an *-ly* adverb that performs the syntactic function adverbial and the predicative function. Conversely, when the adverb is in combination with a non-agentive subject, it would be subject-related, i.e. subject-oriented *-ly* adverbs that display a predicative function. However, the *wetly* type occurs with agentive and non-agentive subjects and, even if the adjectival bases of these words are stative, they allow *-ly* suffixation without expressing adverbial meaning, as in the following examples:

- (133) Meg brought me a popped can of Bud Light, which I **accepted gratefully**

Adverbial	>	*[Meg brought me a popped can of Bud Light, which I accepted in a grateful way]
-----------	---	---

Predicative	>	[Meg brought me a popped can of Bud Light, which I accepted [being] grateful]
-------------	---	---

- (134) She clung to her mother's skirt and **gnawed wetly** on a heel of toast

Adverbial	>	*[She clung to her mother's skirt and gnawed in a wet way on a heel of toast]
-----------	---	---

- | | | |
|---|---|---|
| Predicative | > | [She clung to her mother's skirt and gnawed
[being] wet on a heel of toast] |
| (135) Behind the house the crest of Burnt Mountain beetled darkly against
the wide, empty sky | | |
| Adverbial | > | *[Behind the house the crest of Burnt
Mountain beetled in a dark way against the
wide, empty sky] |
| Predicative | > | [Behind the house the crest of Burnt Mountain
beetled [being] dark against the wide, empty
sky] |

As can be observed in these paraphrases, the *-ly* words cannot express adverbial meaning, even if the subjects with which they co-occur can be classified as AGENT, specifically in (133) and (134). In (133), *grateful* does not characterize a way of accepting something but refers to the state of the subject that is grateful when s/he accepts the syntactic object. *Wetly* in (134) refers not to the way the girl gnawed, but to a physical property of the mouth of the girl (wet). The semantic role of the subject in (135) is different from the semantic roles in the previous examples, namely AFFECTED. In (135), if an action is carried out in a dark way, we could think that its adverbial interpretation is 'with evil intentions' so there is a way of doing that, but in this example *dark* refers to the color of the mountain (there is no evil way of beetling, since the sense of the verb is 'to stand out': the mountain can be seen behind the house). This verb does not involve movement or an action that can be developed in a specific way, and the mountain is not an agentive subject and cannot develop any action.

The *-ly* words in these examples behave as predicatives, because they can only characterize the subject and do not express adverbial meaning regardless of the subjects' semantic role and the ability of the adjectival base to take *-ly* suffixation. All these adjectival bases involve properties of the subjects that cannot be controlled and, even if the subject is agentive and has the inherent property [+CONTROL], which allows s/he to control the action expressed by the verb, the sense of the adjectival bases does not allow adverbial interpretation. It could be argued that, in a way, the meaning of the adjectival base can block the ability of the subject to control whether the action can be carried out in a specific way or not. Consequently, the semantic property [CONTROL] in the subject is not relevant in the ability of adjectives to take *-ly* suffixation, because some adjectival bases can take this type of suffixation without expressing MANNER, as observed in adjectival bases of subject-related *-ly* words.

OE and ME adverbs also appear in combination with agentive subjects that can develop the action expressed by the verb but, as in PDE, the semantic lack of compatibility between the verbs and the adverbs does not allow the adverbial interpretation, so the subjects cannot develop the action in a specific way regardless of their agentivity.

- (136) þy æfterran geare þæs Faius hieora consul, þe oðre noman wæs haten Gurius, gefeaht wið Somnitus, & heanlice hamweard oðfleah (Or 3 10.76.8).

“In the second year their consul Faius who was also called Gurius, fought against the Samnitas, and **shamefully escaped** home”

Adverbial > *[In the second year their consul Faius who was also called Gurius, fought against the Samnitas, and in a shameful way escaped home]

Predicative > [In the second year their consul Faius who was also called Gurius, fought against the Samnitas, and [being] shameful escaped home]

- (137) So sadly he sat in that thought that alle thei were troubled and lefte theire mete (a1500(?c1450) Merlin (Cmb Ff.3.11)226).

“So **sadly** he **sat** in that thought that all of them were troubled and left their meal.”

Adverbial > *[So in a sad way he sat in that thought that all of them were troubled and left their meal]

Predicative > [So [being] sad he sat in that thought that all of them were troubled and left their meal]

Subjects in the examples above cannot develop the action denoted by the verb in a shameful or sad way. In (136), the subject is the agent of the action because the verb involves movements and volition of the subject for the action to be carried out. However, *shamefully* is not compatible with adverbial interpretations such as causing shame on someone or in a disapproving way, as it refers to the subject that is or feels ashamed while escaping. In (137), there is no semantic compatibility between the adverb and the verb, and the adverb refers to the state of the subject and not to a way of sitting. Therefore, in the OE and ME data sample, the semantic role of the subject does not influence the ability of stative adjectives to take subject-relatedness, because the stative

adjectives in the data can take subject-relatedness and do not derive manner adverbs, but subject-related *-ly* words.

One more aspect that can also be noticed is that *wetly* does not always refer to the physical property of the subject that is covered with liquid. It can also refer to the state of the subject that feels feeble. For a full understanding of the example, it is necessary to consider the context of the example and all the information given in the parts of the sentence that precede *wetly*. In examples such as (138), it is understood that the subject is or feels feeble because of the previous information given in the paragraph where the example appears.

- (138) People were wearing disaster dresses to the Oscars. Some were getting fished out of hotel bathtubs. Others were having meltdowns on Fifth Avenue, running in front of taxis and dropping their pants. Leda wandered the halls. In the waiting rooms, people **stared wetly** at the clock.

Adverbial	>	*[People were wearing disaster dresses to the Oscars. Some were getting fished out of hotel bathtubs. Others were having meltdowns on Fifth Avenue, running in front of taxis and dropping their pants. Leda wandered the halls. In the waiting rooms, people stared in a wet way at the clock.]
Predicative	>	[People were wearing disaster dresses to the Oscars. Some were getting fished out of hotel bathtubs. Others were having meltdowns on Fifth Avenue, running in front of taxis and dropping their pants. Leda wandered the halls. In the waiting rooms, people stared [being] wet at the clock.]

Here, *wet* does not mean that the subject is covered with liquid, but that the subject is feeble meaning ‘physically weak from sickness’. People are not staring in a wet way, but they look sick or weak when they stare at the clock.

4.2.2.1.3.2 The verb phrase

This section focuses on the position of the *wetly* type in the sentence and shows the possible syntactic structures that can be found containing this type of *-ly* words. These *-ly* words can take three different positions in the sentence, specifically preverbal, mid- and postverbal position and, therefore, the position of the *wetly* type does not have an influence on the semantics of the *-ly* words

in this type, as they can never express adverbial meaning. Thus, *-ly* words included in the *wetly* type are never adverbs regardless of their position in or close to the verb phrase and their morphology. This feature could be considered relevant because it has been argued that, for subject-oriented *-ly* adverbs, the position of the *-ly* adverb close to the verb phrase, specifically immediately after the verb or in post-verbal position, is an important factor (Guimier 1991: 97). However, the position of the adverb is not significant in subject-relatedness as the most important feature is the meaning of the clause constituents. The position of the *wetly* type in the data will be presented in three groups according to the place that the *-ly* words take in the sentence:

- i) Preverbal position: the *wetly* type appears immediately before the verb phrase. The *-ly* words in these examples do not express adverbial meaning and are derived from stative adjectival bases by *-ly* suffixation; these are subject-related *-ly* words. Examples of these words in preverbal position are given in:

- (139) He had it! Surely he did! The stuff was expanding like a balloon. Then **wetly exploded**. THWACK!

Adverbial	>	*[He had it! Surely he did! The stuff was expanding like a balloon. Then in a wet way exploded. THWACK!]
Predicative	>	[He had it! Surely he did! The stuff was expanding like a balloon. Then [being] wet exploded. THWACK!]

- (140) It occurs to Gruner that maybe it was the dog's food in the mug, and he **worriedly wonders** how long the dog has been here

Adverbial	>	*[It occurs to Gruner that maybe it was the dog's food in the mug, and he in a worried way wonders how long the dog has been here]
Predicative	>	[It occurs to Gruner that maybe it was the dog's food in the mug, and he [being] worried wonders how long the dog has been here]

The adverbial interpretation of these words is not possible, and even if they have the mobility and distribution of adverbs, they only perform predicative function and consequently characterize the subject. In (139), there is not a wet way of exploding, the meaning of the adjectival bases of this *-ly* word does not allow an adverbial interpretation in combination with any verb. The same happens to *worriedly* in (140), because the suffix *-ed* used to derive the

adjective indicates that it refers to the state of the person and does not allow adverbial interpretation. In these examples there is a lack of compatibility between the meaning of the *-ly* word and the meaning of the adverb, because the *-ly* words cannot express how the action denoted by the verb is developed.

The question that can be raised here is: why does the writer use the *-ly* form if no adverbial meaning is possible? This form can be used to provide the word with a specific position in the sentence, because the sentence containing an adjective instead of an adverb would be less acceptable. Thus, if the sentences are *The stuff was expanding like a balloon. Then wet exploded* instead of the original sentence in (139) or *he worried wonders how long the dog has been here* instead of (140), the sentences containing adjectives are less acceptable than the counterparts containing adverbs. Adjectives usually occur in prenominal or postverbal position and it is not common for them to appear in preverbal position, so the sentence where the adjectival form is used is questionable. For these sentences to be acceptable, it would be necessary to change the adjective to postverbal position or change the sentence to indicate what was wet. If the adverbial form is used, the writer does not need to modify the sentence and make it longer to include that information. The use of the suffix *-ly* allows a shorter clause constituent to express something that would need a longer and heavier clause constituent in the subject. Thus, *-ly* suffixation in stative adjectival bases is possible to create subject-related *-ly* words and allows a different position in the sentence without changing its meaning, as it is shown in the previous examples.

Based on previous research, another important factor to consider in the orientation of *-ly* adverbs is the position of the adverb close to the noun phrase because it has been argued that subject-orientation is favored when the *-ly* adverb is in initial or mid position (Guimier 1991: 97), that is to say, the *-ly* adverb is between the subject and the verb. However, this argument has been questioned because: i) some adverbs will never allow subject-oriented regardless of their position in the sentences, and ii) the main property for these adverbs to be subject-oriented is that their adjectival bases maintain an intensive relation with the subject (Valera 1998: 265). Thereby, subject-related *-ly* adverbs of the *wetly* type as in (139) and (140) maintain an intensive relation with the subject that allows subject-relatedness, while their adverbial interpretation is not possible due to the incompatibility between the verb and the adjectival bases of *-ly* words. The *wetly* type is close to the subject that it characterizes in all the examples, but the feature that allows the characterization of the subject is not the position of these words, but their meaning.

- ii) Postverbal position: the *wetly* type appears immediately after the verb. A substantial number of examples show this distribution due to the tags used to obtain the data, and because other tags return examples of very common adverbs that are not relevant here because their function is that of premodification (as intensifiers). This position is typical of adverbs, specifically manner adverbs, but the function of the *-ly* words in our data differs from that of the function of manner adverbs since its function is predicative. This has also been argued to be the most common distribution of subject-related *-ly* adverbs (Jiménez-Pareja 2022). These features can be seen in:

- (141) He dared to take a few steps more when his eyes had adjusted, and found himself in a small round cavern with a ten-foot ceiling laced with tendrils of light rock glowing faintly in green. The ceiling **glistened wetly**, and the floor was wet. John took samples of liquid and glowing rock, his heart thumping with excitement

Adverbial > *[The ceiling glistened in a wet way, and the floor was wet. John took samples of liquid and glowing rock, his heart thumping with excitement]

Predicative > [The ceiling glistened [being] wet, and the floor was wet. John took samples of liquid and glowing rock, his heart thumping with excitement]

- (142) He took a week off from work – no problem for him, considering all the unused vacation time he’d accumulated, which had even gotten to be a joke around the office – and drove to the lawyer’s, where he picked up the keys, accompanied by condolences Val **accepted grimly**. It turned out, he learned, that the words “sorry for your loss” fall quite un-comfortably on the ears when one doesn’t feel that much of a loss at all

Adverbial > *[He took a week off from work – no problem for him, considering all the unused vacation time he’d accumulated, which had even gotten to be a joke around the office – and drove to the lawyer’s, where he picked up the keys, accompanied by condolences Val accepted in a grim way]

Predicative > [He took a week off from work-no problem for

him, considering all the unused vacation time he'd accumulated, which had even gotten to be a joke around the office – and drove to the lawyer's, where he picked up the keys, accompanied by condolences Val accepted [being] grim]

In (141), *wetly* does not refer to a wet way of glistening, but to the state of the ceiling (covered with liquid). It can be understood from the rest of the sentence because the writer explains that the subject is in a cavern, and, there is liquid s/he is going to take samples of. In the description of the cavern the writer wants the reader to imagine how the ceilings were wet so they glistened being wet. If the writer does not use the *-ly* word, s/he has to rephrase the sentence in order to say that both the ceiling and the floor were wet, and that the ceiling was glistening, but by using the *-ly* word the writer can express the same meaning in a clause structure that is shorter and easier for the reader. The same happens in examples such as *His nose was running with blood that glistened wetly in the flickering lamplight* where the blood was wet, as it is a liquid, and glistened while it was coming out the nose of the subject. Both subjects, the ceiling and the blood, glistened and looked wet because of the light in the cavern and of the lamp respectively (there is no wet way of glistening). In (142), *grimly* does not refer to a specific way of accepting condolences, it refers to the state of the subject in that he was nervous when he accepted the condolences. The subject is not happy about leaving the office and people express their condolences, but the subject is nervous about it (there is no grim way of accepting condolences).

The subject-related *-ly* words in the examples above do not express adverbial meaning which indicates that the position of the *wetly* type close to the verb phrase, in particular immediately after the verb, is not a factor in the interpretation of the *wetly* type as an adverb, as it was previously claimed to be in the interpretation of subject-oriented adverbs (Guimier 1991: 97). The semantic compatibility or intensive relationship of the adjectival base and the subject is more relevant than the distribution of these words when it comes to the characterization of the subject by the *wetly* type, as previously seen when it takes preverbal position.

- iii) Mid position: the data analyzed in the COCA do not include examples of the *wetly* type in mid-position. This is due to the huge quantity of concordances containing intensifiers that are returned by the tag used to obtain this type of combination. However, the BNC has reported evidence of the *wetly* type in mid position, i.e. the *-ly* word appears

between the auxiliary and the main verb. Even if this evidence has been found only in the BNC, this feature of subject-related *-ly* words contribute to establishing the conditions for stative adjectives to take *-ly* suffixation. Furthermore, the relevance of this position could be higher than expected, since adjectives do not appear in this position, whereas adverbs, normally intensifiers, do.

- (143) His horse, Contralto, **was dazedly looking** around himself, as if wondering whether the grass covering his fetlocks was real or illusory
- | | | |
|-------------|---|--|
| Adverbial | > | *[His horse, Contralto, was in a dazed way looking around himself, as if wondering whether the grass covering his fetlocks was real or illusory] |
| Predicative | > | [His horse, Contralto, was [being] dazed looking around himself, as if wondering whether the grass covering his fetlocks was real or illusory] |
- (144) Wasn't he gorgeous? Wasn't he totally different from the boys who **had** fumblingly and rather horridly and **wetly**, she thought, **kissed** her and said they quite fancied her?
- | | | |
|-------------|---|--|
| Adverbial | > | *[Wasn't he gorgeous? Wasn't he totally different from the boys who had fumblingly and rather horridly and in a wet way, she thought, kissed her and said they quite fancied her?] |
| Predicative | > | [Wasn't he gorgeous? Wasn't he totally different from the boys who had fumblingly and rather horridly and [being] wet, she thought, kissed her and said they quite fancied her?] |

In (143) and (144), the *wetly* type takes a position in the sentence that is taken only by adverbs, but it does not behave as an adverb, because *dazedly* and *wetly* express adjectival meaning and characterize the subject. There is no dazed way of looking, the writer refers to the state of the horse that is dazed and therefore wonders whether the grass is real or not. In addition, one of the features that can be important in the description of these examples is the coordination structure in (144) (considering that words appear in coordination with other words that are part of the same word-class or behave similarly, semantically or

syntactically). However, *wetly* does not behave semantically like *fumingly* and *horribly*, because *fumingly* and *horribly* express adverbial meaning. The only reason why these words are in coordination is their morphology (all take the suffix *-ly*). Thus, the suffix *-ly* can be added to stative adjectival bases in this type of coordinate phrases to provide the resulting *-ly* word with a specific position in the sentence without changing its meaning. This feature supports the hypothesis that *-ly* is an inflectional suffix that only provides the words with mobility or a position in the sentence, but not with adverbial meaning.

Subject-related adverbs in OE and ME also take the three syntactic positions that have been reported to occur in PDE. However, there is an important feature of OE to consider. In OE, there was no fixed word order for the syntactic constituents of a clause, even if there were several word orders used to express the information appropriately. In ME, as language was evolving from a synthetic to an analytic language, the syntactic structure of the clause was undergoing a grammaticalization by fixation of the word order (see Chapter 2). Previous research about the distribution of adverbs in ME argued that, during this period, postposed adjectives, small clauses, and adverbs could occur in the same distribution and, therefore, there was a tendency for adverbs to occur in the position of adjectives whenever they appeared in postnominal or preverbal position (Fischer 2004). The different syntactic positions of OE and ME subject-related *-ly* words are provided below.

- (145) & se bysceop **hefelice sargade** be þam fylle & minre forwyrde; forþon þe he me mid syndrige lufan lufade (Bede 5 (O) 6.402.6).

“The bishop **sadly suffered** for my fall and destruction because he loved me with a special love”

Adverbial > *[The bishop in a sad way suffered for my fall and destruction because he loved me with a special love]

Predicative > [The bishop [being] sad suffered for my fall and destruction because he loved me with a special love]

- (146) Ða gebroðra **sarige ða sæton** ofer ðæt lic (ÆLS 31.212).

“The brothers **were sadly sitting** over that body”

Adverbial > *[The brothers were in a sad way sitting over that body]

Predicative > [The brothers were sad sitting over that body]

- (147) Decius cwæð. Lecgað ða isenan clutas hate glowende to his sidan (ÆCHomI, 29 423.144).

“Decius said: lay the iron pieces **glowing hotly** to his side”

Adverbial > *[Decius said: lay the iron pieces glowing in a hot way to his side]

Predicative > [Decius said: lay the iron pieces glowing [being] hotly to his side]

- (148) þe Egle ... sittip abroode heuyliche þeruppon ((a1398) *Trev.Barth.(Add 27944)142a/b).

“the eagle ... sits **spread out heavily** thereupon”

Adverbial > *[the eagle ... sits spread out in a heavy way thereupon]

Predicative > [the eagle ... sits spread out [being] heavy thereupon]

In ME, there are also examples of subject-related adverbs in initial position in the sentence. These adverbs also precede the subject, but their paraphrases illustrate that they do not behave like other adverbs in initial position and they refer to the subject. These subject-related *-ly* words are morphologically like adverbs and take the distribution of some adverbs, but a closer look at their meaning and syntactic behavior reveals that these units are semantically like adjectives that function like predicative complements, as can be seen from the paraphrases that illustrate their predicative meaning:

- (149) In þe faireste lond huy weren ... **Picke** it **was** i-set wit treon (c1300 Sleg.Brendan (LdMisc 108)695)

“in the fairest of lands they were ... **thickly** it **was** set with trees”

Adverbial > *[in the fairest of lands they were ... in a thick way it was set with trees]

Predicative > [in the fairest of lands they were ... [being] thick it was set with trees]

4.2.2.1.3.3 The subject-related adverb

4.2.2.1.3.3.1 Control

Unlike other stative adjectival bases, the adjectival bases of the *wetly* type, i.e. stative adjectival bases that create subject-related *-ly* words, are semantically classified as [–CONTROL]. By [CONTROL] here we refer to the ability of the subject to control her/his state or a property while the action of the verb is

developed. Some adjectives such as *thoughtful*, *sleepy*, *angry* or *cold*, among others, have dynamic senses that allow the adverbial interpretation of the resulting *-ly* words in combination with some verbs, but other adjectives or stative sense of the previously mentioned do not allow the adverbial interpretation of the resulting *-ly* words, because the states or qualities denoted by the adjectives are uncontrollable. Thus, adjectives own or lack the property [CONTROL] according to whether the subject has the ability to show the state or quality expressed by the adjective. Stative adjectival bases like *wet*, *thankful* or *delighted* refer to physical or mental properties/states that are uncontrollable and cannot derive adverbs. Thus, some adjectives that only display stative senses will always be [-CONTROL] and create subject-related *-ly* words if they can take *-ly* suffixation, because their stative nature blocks an adverbial interpretation of the resulting *-ly* word. This is illustrated in the examples below:

- (150) Abner walked over to the ball and pushed it. It **groaned wetly** as he rolled it across the floor

Adverbial > *[Abner walked over to the ball and pushed it. It groaned in a wet way as he rolled it across the floor]

Predicative > [Abner walked over to the ball and pushed it. It groaned [being] wetly as he rolled it across the floor]

- (151) Already the others in his house **burned darkly** into the night

Adverbial > *[Already the others in his house burned in a dark way into the night]

Predicative > [Already the others in his house burned [being] dark into the night]

- (152) Rachel **escaped gratefully**. Outside she blinked at the sunlight, even under the shade from the canopy, until her eyes adjusted

Adverbial > *[Rachel escaped in a grateful way. Outside she blinked at the sunlight, even under the shade from the canopy, until her eyes adjusted]

Predicative > [Rachel escaped [being] grateful. Outside she blinked at the sunlight, even under the shade from the canopy, until her eyes adjusted]

Adjectives such as *wet*, *dark* and *grateful* in (150), (151) and (152) can take *-ly* suffixation, but they cannot express adverbial meaning, because they are stative and refer to uncontrollable properties. As the subject cannot control whether s/he shows the property denoted by the adjective, the adverbial interpretation of these *-ly* words is not possible. The adjectives *wet* and *dark* refer to uncontrollable physical properties of the subjects that are covered by liquid or do not have color or light, respectively. In (152), *grateful* also refers to an uncontrollable state of the subject that cannot decide when she feels grateful or not. It does not refer to a way of escaping. Thus, *-ly* suffixation is not blocked for uncontrollable stative bases, but these adjectives do not allow the adverbial interpretation of the *-ly* words.

The type of adjectives found in the formation of OE and ME adverbs also refers to uncontrollable properties or states of the subject. Most adjectives of temperature, color, or state do not express MANNER when they create adverbs because these properties cannot be controlled by the subject when carrying out an action. In the examples below, the subjects cannot decide whether they develop the action in a hot, white, pale or piteous way because the meanings of the adjectival bases are not compatible with the meaning of the verbs. In (155), for example, *piteously* refers to an uncontrollable state of the subject that is affected by pity and lacks compatibility with the verb (there is no piteous way of trembling).

- (153) sette him regnas reþe swylce, **hate** of heofenum hagol **byrnende**, se lige forgeaf land Egypta (PPs 104.28).

“established over them terrible rains, likewise, hail **hotly burning** of the sky, that gave flame to the land of Egypt”

Adverbial > *[established over them terrible rains, likewise, hail in a hot way burning of the sky, that gave flame to the land of Egypt]

Predicative > [established over them terrible rains, likewise, hail [being] hot burning of the sky, that gave flame to the land of Egypt]

- (154) wið heafodece, wyl in wætere pollegian & leac, mintan, fenmintan & þæt ðridde cyn mintan þæt **bloweð white** (Med 3 34.1).

“Against headache, put in water pennyroyal, leek, mint, fenmint and the third kind of mint that **blows whitely**”

Adverbial > *[Against headache, put in water pennyroyal, leek, mint, fenmint and the third kind of mint that blows whitely]

Predicative > [Against headache, put in water pennyroyal,
leek, mint, fenmint and the third kind of mint
that blows whitely]

- (155) And therewithal she wepte tenderly, And **quok** for fere, **pale** and **pitously**, Ryght as the lamb that of the wolf is biten (c1430(c1386) Chaucer LGW (Benson-Robinson)2317).

“And then she wept (or was/started weeping) tenderly, and **trembled** (was/started trembling), **palely and piteously**, right as a lamb that is bitten by a wolf”

Adverbial > *[And then she wept (or was/started weeping) tenderly, and trembled (was/started trembling), in a pale way and in a piteous way, right as a lamb that is bitten by a wolf]

Predicative > [And then she wept (or was/started weeping) tenderly, and trembled (was/started trembling), [being] pale and piteous, right as a lamb that is bitten by a wolf]

4.2.2.1.3.3.2 Temporariness

All the adjectives involved in the creation of *-ly* words of the *wetly* type share another important feature, which is their temporary nature. These words can be semantically classified as [+TEMPORARY], i.e. the states and properties expressed by the adjectival bases of these *-ly* words have a specific duration. Examples of this type of adjectives are the following:

- (156) "Wow, Bob, wow!" Anna **murmured hungrily**. # "Tuna roll, or a nut?" I offered. She shook her head.

Adverbial > *["Wow, Bob, wow!" Anna murmured in a hungry way. # "Tuna roll, or a nut?" I offered. She shook her head]

Predicative > ["Wow, Bob, wow!" Anna murmured [being] hungry. # "Tuna roll, or a nut?" I offered. She shook her head]

- (157) The man's eyes **narrowed nervously**, but he did not offer the violence of a reply.

Adverbial > *[The man's eyes narrowed in a nervous way, but he did not offer the violence of a reply]

Predicative > [The man's eyes narrowed [being] nervously,

but he did not offer the violence of a reply]

- (158) "What is it? What's wrong now?" He **blinked redly** at Ily as he shook the arm he'd been sleeping on.

Adverbial	>	*["What is it? What's wrong now?" He blinked in a red way at Ily as he shook the arm he'd been sleeping on]
Predicative	>	["What is it? What's wrong now?" He blinked [being] red at Ily as he shook the arm he'd been sleeping on]

The adjectival bases used in the creation of the *-ly* words in the examples above have two properties in common; [-CONTROL] and [+TEMPORARY]. The states and properties denoted by the adjectival bases of the examples have a specific duration because the subject is not always *hungry*, *nervous* or *wet*. In (156) and (157), *hungry* and *nervous* are not permanent states of the subject. Color adjectives that are usually classified as permanent are also characterized as [+TEMPORARY] in the data found for the context of the sentence where the example occurs. The subject is characterized as red in (158), maybe the color of his face because he was embarrassed. Thus, he is not red because it is his color, he is characterized as red because the situation described in the sentence makes him feel embarrassed.

- (159) She **watched blindly** as the Philberts left. They were the only people she felt she could call on in Denver, and they were acquaintances

Adverbial	>	*[She watched in a blind way as the Philberts left. They were the only people she felt she could call on in Denver, and they were acquaintances]
Predicative	>	[She watched [being] blindly as the Philberts left. They were the only people she felt she could call on in Denver, and they were acquaintances]

- (160) This technique, [...], consists of a monochromatic underpainting with layers of glazes and scumbled color **applied transparently or semitransparently**

Adverbial	>	*[This technique, [...], consists of a
-----------	---	--

		monochromatic underpainting with layers of glazes and scumbled color applied in a transparent way or in a semitransparent way]
Predicative	>	This technique, [...], consists of a monochromatic underpainting with layers of glazes and scumbled color applied [being] transparent or semitransparent]

A small subset of adjectival bases in the data like *blind*, *invisible* and *transparent* or *semitransparent* denote permanent properties of the subject that cannot be controlled while the action expressed by the verb is carried out. Even if these properties are permanent, they are still not controllable, as the subject does not have the ability to develop the action in a blind, invisible or transparent way. This shows that *-ly* suffixation is also possible in permanent stative adjectival bases, but only when they are semantically classified as [–CONTROL]. Thus, the semantic properties [–CONTROL] and [+TEMPORARY] are common to all the stative adjectival bases that allow *-ly* suffixation, but in adjectival bases that are [–TEMPORARY], [CONTROL] seem to be the main semantic feature in this type of suffixation because, unlike the semantic feature [+TEMPORARY], [–CONTROL] is common to all the adjectival bases in the data.

As in PDE, the OE and ME data show that the majority of adjectives denote temporary properties of the subject. Most of the adjectives refer to temporary states of the subject such as *thankful*, *hot* or *angry*. The adjectival bases used in the creation of the adverbs in the examples do not characterize the subjects permanently since the bath in (163) will be hot for a limited period of time. Similarly, being *thankful* or *angry* are feelings that last for a certain period of time and only refer to temporary states of subjects.

(161) ac þa hæðenan weras his word **hefiglice onfengcon** & hine mid teonwordum wæron ehtende (GD 3 (C) 37.250.19).

“But the heathen men **received** his words **angrily** and prosecuted him with abuses”

Adverbial	>	*[But the heathen men received his words in an angry way and prosecuted him with abuses]
-----------	---	--

Predicative	>	[But the heathen men received his words [being] angrily and prosecuted him with abuses]
-------------	---	---

(162) hwilum of heofnum **hate scineð**, blicð þeos beorhte sunne (GenB 810).
 “at times from heaven **hotly shines**, glitters this bright sun”

Adverbial	>	*[at times from heaven in a hot way shines, glitters this bright sun]
Predicative	>	[at times from heaven [being] hot shines, glitters this bright sun]

(163) bæð **hate weol** (Jul 581).

“bath **was welling hotly**”

Adverbial	>	*[bath was welling in a hot way]
Predicative	>	[bath was welling [being] hot]

(164) She knelyd downe, **thankyd** hym full **thankfully**, Embrasyd hym
(c1475 Court Sap.(Trin-C R.3.21)878).

“She knelt down, **thanked him thankfully**, embraced him”

Adverbial	>	*[She knelt down, thanked him in a thankful way, embraced him]
Predicative	>	[She knelt down, thanked him [being] thankful, embraced him]

(165) Mary dede **appere** ... to hem both two, **Angrely** & wyth a brynnynng
chere (1447 Bokenham Sts.(Arun 327)5832).

“Mary **appeared**... to both of them, **angrily** and with a burning face”

Adverbial	>	*[Mary appeared ... to both of them, in an angry way and with a burning face]
Predicative	>	[Mary appeared ... to both of them, [being] angrily and with a burning face]

The properties found in the OE and ME data are in line with the properties described elsewhere for PDE, there is a prevalence of the semantic property [–CONTROL] over the property [+TEMPORARY], as can be observed in (163) above. In (162) *hot* does not refer to a temporary property of the sun that is hot during a certain period of time, but to a permanent property of the sun. Therefore, [+TEMPORARY] is one of the properties displayed by most of the examples in the data sample, but when adjectives are [–TEMPORARY], the property [–CONTROL] is still present and prevails over [TEMPORARY].

4.2.2.2 Quantitative analysis

This section focuses on the quantitative description of the features of subject-related *-ly* adverbs and the register where these *-ly*-marked units are more frequent. This section is structured as follows: section 4.3.2.1 includes the most and least frequent semantic patterns and their evolution in the different periods

of the language. Section 4.3.2.2 provides quantitative data on the semantic features of the adjectival bases. Finally, section 4.3.2.3 elaborates on the registers where subject-relatedness is more frequent and, on the similarities and differences between periods of the language.

4.2.2.2.1 Semantic patterns

The semantic patterns presented in this section include the most and least relevant combinations of verbs and subject-related *-ly* words in the total dataset of 601 concordances. Four semantic types of verbs, namely DYNAMIC, STANCE, STATIVE and COPULATIVE, have been identified in every period of the history of English.

As shown in Figure 15 below, the patterns follow a similar development through the periods of the history of the language, but some characteristics are worth mentioning:

- i) The percentage of concordances containing combinations where a dynamic verb is followed by a subject-related *-ly* word is slightly higher in PDE compared to the percentages in OE and ME. In PDE, this combination is the most common occurring in 384 concordances in the BNC and COCA, while in OE and ME it occurs in 17 and 13 concordances, i.e. 74,85%, 33% and 35% of the combinations, respectively²¹.
- ii) The combination of stance verbs is almost the least frequent in every period, but the use of these verbs is higher in OE and ME with 7 and 5 concordances, i.e. 14% of the examples in each period. In PDE, there are 21 concordances containing this type of verbs, i.e. 4% of the examples.
- iii) The combination of stative verbs and subject-related *-ly* words is the most frequent in OE and ME with 21 and 18 concordances, 41% and 48% of the concordances, respectively. In PDE, the number of concordances found is 104, i.e. 20% of the examples, half of the percentage in previous periods.
- iv) Combinations of copulative verbs are less frequent in every period, but it should be noticed that there are 6 concordances of this combination in OE, i.e. 12% of the concordances. This type of verb is almost as

²¹ The statistical comparison of the data results from the individual calculation of the percentages corresponding to every period of the language.

frequent as stance verbs with 7 concordances, i.e. 14% of the combinations in the same period.

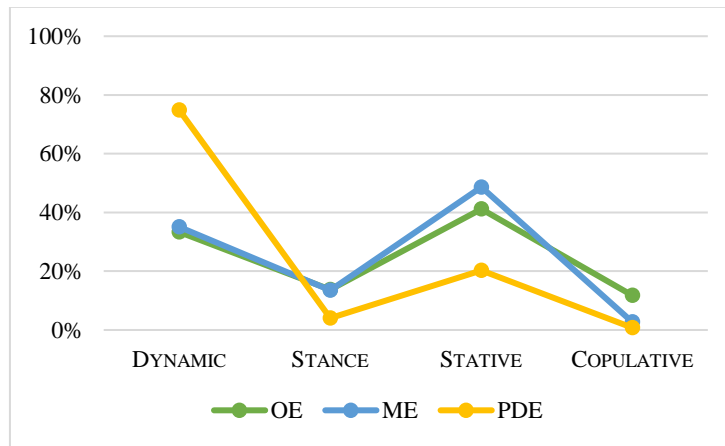


Figure 15. Semantic patterns used in OE, ME, and PDE (percentages)

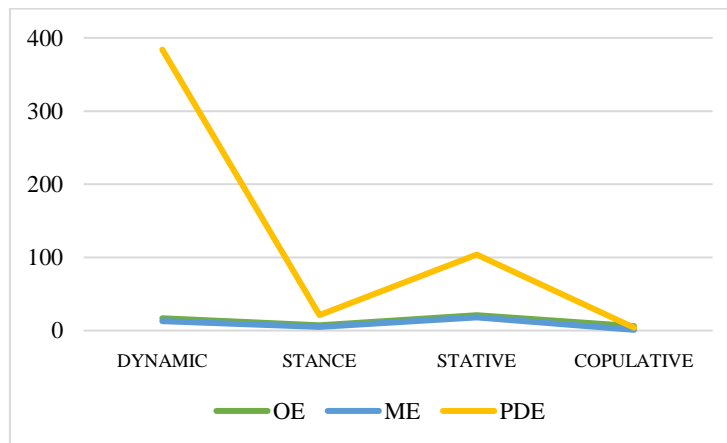


Figure 16. Semantic patterns used in OE, ME, and PDE (absolute values)

4.2.2.2.2 Semantic features of adjectival bases

One of the features included in the analysis of adjectival bases used in the creation of subject-related *-ly* words is the semantic type of these adjectival bases. There are three main types of adjectives, namely adjectives denoting STATE, PHYSICAL PROPERTIES, and HUMAN PROPENSITY. The use of these types of adjectives is illustrated in Figure 17 below.

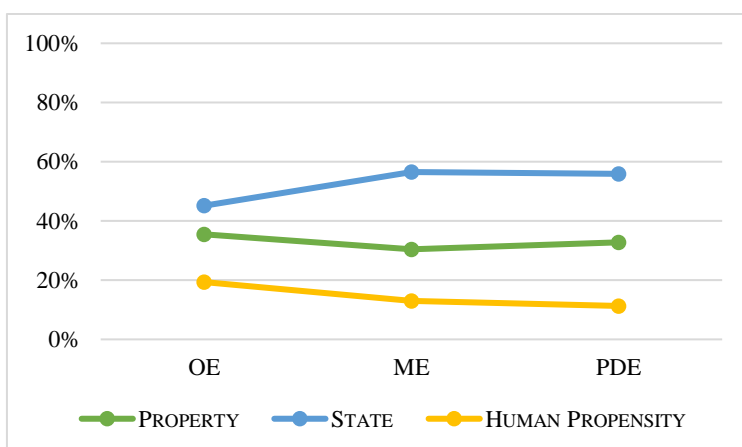


Figure 17. Semantic types of adjectives in OE, ME, and PDE (percentages)

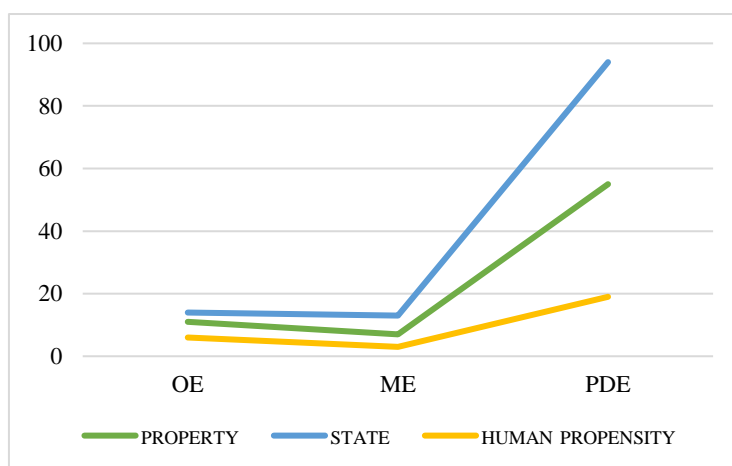


Figure 18. Semantic types of adjectives in OE, ME, and PDE (absolute values)

There is a decreasing tendency in the use of adjectives denoting HUMAN PROPENSITY since their use was higher in OE with 6 concordances (19%), but it decreased in ME with 3 concordances (13%), and in PDE with 19 concordances (11%). The use of adjectives of PHYSICAL PROPERTIES is steady through the three periods under study with 11, 7, and 55 concordances in OE, ME, and PDE, i.e. 35%, 30%, and 33% of the examples, respectively. The number of adjectives of STATE is also steady in every period with 14, 13, and 94 concordances in OE, ME, and PDE, i.e. 45%, 57%, and 56% of the concordances, respectively. This type is the most common and includes almost half of the adjectives in the data sample.

Other semantic properties of the adjectival bases included in the data analysis was their classification as controllable and temporary. As seen in Figure 19, all the adjectives in the data sample are [-CONTROL] with 31 adjectives in OE, 23 adjectives in ME, and 168 adjectives in PDE, i.e. 100% of the adjectives in each period. The majority of adjectives are [+TEMPORARINESS] with 21 adjectives in OE, 20 adjectives in ME, and 142 adjectives in PDE, i.e. 68%, 87% and 85% of the adjectives, respectively.

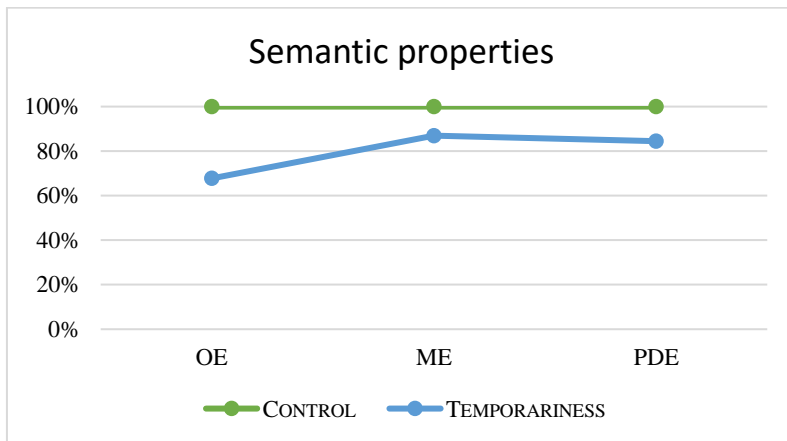


Figure 19. Classification of adjectives with the semantic features [CONTROL] and [TEMPORARINESS] in OE, ME, and PDE (percentages)

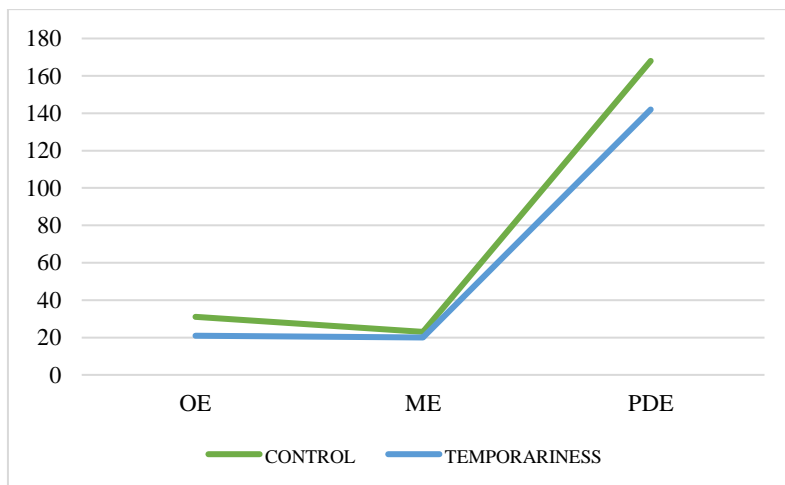


Figure 20. Classification of adjectives with the semantic features [CONTROL] and [TEMPORARINESS] in OE, ME, and PDE (absolute values)

The use of adjectives regarding their semantic type and also the semantic features under study presents more similarities in ME and PDE. The use of adjectives denoting HUMAN PROPENSITY has diminished in ME and PDE, so there has been a decreasing tendency in the use of these adjectives from OE onwards. Conversely, the use of adjectives of STATE has increased from OE to ME and PDE and represents almost the 60% of the semantic classes of adjectives used in ME and PDE. Regarding the semantic properties CONTROL and TEMPORARINESS, while uncontrollable adjectives distribute themselves evenly through the three periods, temporary adjectives are most common in ME and in PDE than in OE. Thus, an increase can be observed from OE to ME and PDE. Subject-relatedness is always present, but its use has evolved over time, and ME and PDE share several properties when it comes to the semantic type of adjectives and the semantic properties of the adjectives that slightly differ from the properties observed in OE.

4.2.2.2.3 Register

One of the most salient properties in the concordances under study is register. The use of subject-related *-ly* words in the three periods of the history of English seems to be influenced by the spread of register-specific styles, particularly by registers related to fiction. Therefore, registers such as fiction in PDE, and courtly/romance text and narrative passages of the homiletic genre in OE and ME prevail in the data collected.

The distribution of the results in PDE, shown in Table 13 below, has been established according to the register specified in PDE corpora. As there are some differences between the corpora used,²² concordances under the registers *prose* and *poetry* appear under the same tag in both corpora. Table 13 shows the distribution of the concordances in BNC and COCA. The first column of the table shows the register, the second and fourth columns show the number of concordances in the dataset that have been found under the register indicated in the BNC and COCA, respectively, and the third and fifth columns illustrate the percentage of the number of concordances in the dataset out of the complete set of concordances collected, namely 513 concordances that display subject-relatedness in both corpora.

²² Regarding register, the BNC distinguishes between the registers *poetry* and *prose*, while the COCA only indicates that the example belongs to fiction. Hence, for the purposes of the present research, the distinction between prose and poetry has not been made. However, for further data analysis and in order to clarify the percentage of poetry texts in the COCA, it would be necessary to manually classify the texts under *fiction* as poetry or prose.

Table 13. The distribution of results according to register in BNC and COCA

Register	BNC data		COCA data	
	No. of concordances	Percentage	No. of concordances	Percentage
Spoken	0	0.0	4	1.1
Fiction	154	86.0	260	77.8
Magazine	1	0.5	37	11.0
Newspaper	4	2.2	24	7.1
Academic	0	0.0	9	2.6
Non-academic	4	2.2	0	0.0
Miscellaneous	16	8.9	0	0

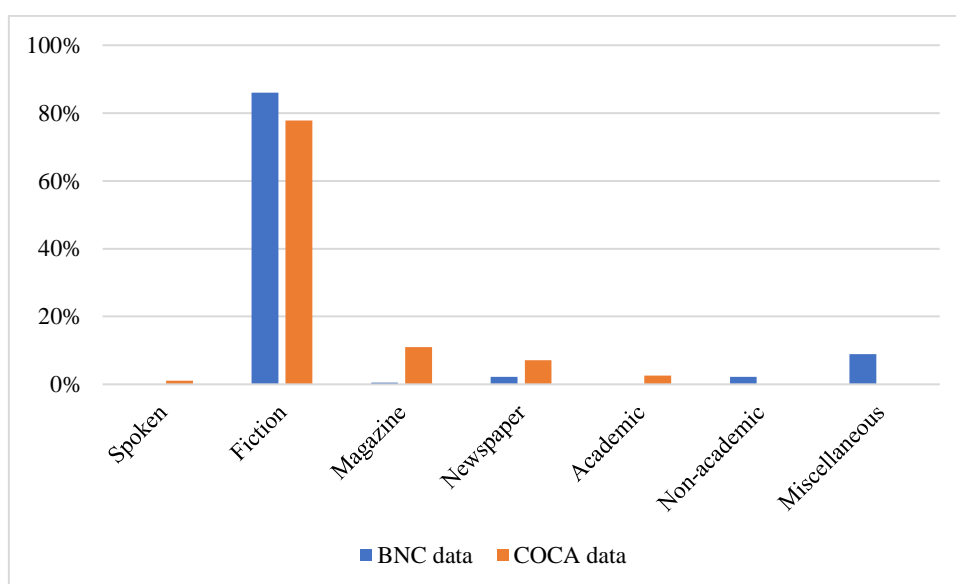


Figure 21. The distribution of the results in the BNC and COCA

In the concordances of subject-relatedness analyzed, the highest percentage of data is always found under the same register, so 86% of the cases in the BNC and over 78% of the cases in the COCA fall under the field *fiction*. The remaining 14% of concordances in the BNC and 22% of concordances in the COCA are classified under other registers such as *magazine*, *newspaper*, *non-academic* and *miscellaneous* in the BNC and *spoken*, *magazine*, *newspaper* and *academic* in the COCA. The registers found in both corpora thus diverge slightly in the use of subject-relatedness. For example, while subject-related -ly words are used in spoken language and academic texts in the COCA (even if the percentage of this register is not high), there are no concordances in these

registers in the BNC. By contrast, other registers such as *non-academic* or *miscellaneous* appear in the BNC, but not in the COCA.

The register of data from OE and ME has been divided into two groups: i) registers related to prose, and ii) registers related to poetry. Due to the properties of the texts available for these periods, all the registers are related to written texts and no examples of spoken language were recorded. Thus, Tables 14 and 15 show the distribution of the concordances in OE and ME prose and poetry, respectively. The first column of each table shows the register and sub-register of concordances, the second and fourth columns indicate the number of concordances found in every register and sub-register in OE and ME, and the third and fifth columns show the percentage of those concordances over the total set of concordances displaying subject-relatedness in OE and ME.

Table 14. The distribution of the results in OE and ME for the register *prose*

Register	OE data		ME data	
	No. of concordances	Percentage	No. of concordances	Percentage
Prose	48	58.5	38	50.6
Sub-register				
Scientific	2	4.1	4	10.5
Homiletic	13	27	22	57.8
Legendary	11	22.9	3	7.8
Legal	2	4.1		
Historical	6	12.5		
Philosophical	3	6.2		
Liturgical	2	4.1		
Biblical	8	16.6		
Religious epic	1	2.0		
Courtly/Romance			5	13.1
Chronicle			1	2.6
Romance			1	2.6
Religious			1	2.6
Allegorical			1	2.6

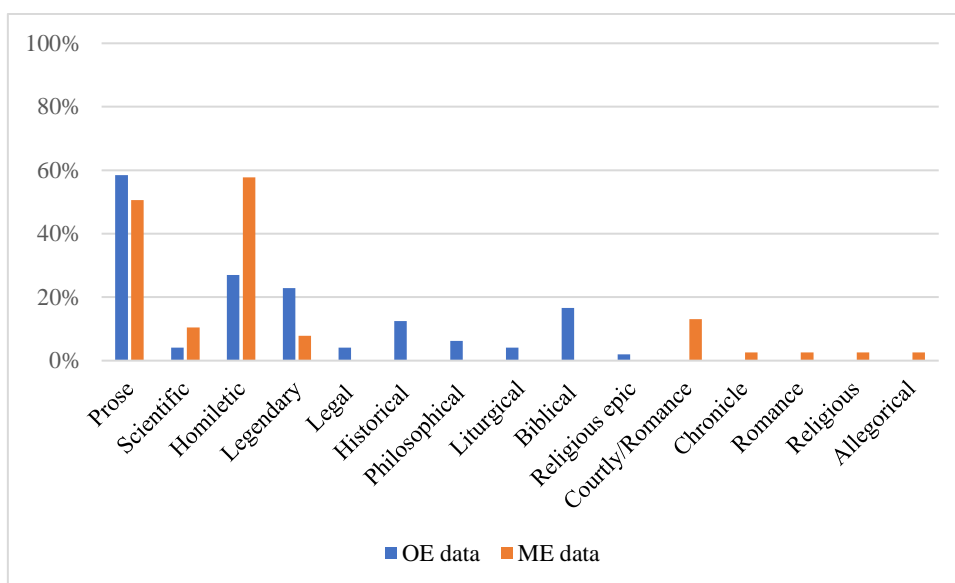


Figure 22. The distribution of the results in OE and ME for the register *prose*

Table 15. The distribution of results in OE and ME in *poetry*

Register	OE data		ME data	
	No. of concordances	Percentage	No. of concordances	Percentage
Poetry	34	41.4	35	46.6
Sub-register				
Religious	15	44.1	6	17.1
Biblical	10	29.4	1	2.8
Legendary	1	2.9		
Philosophical	1	2.9		
Scientific	1	2.9		
Heroic epic	1	2.9		
Religious epic	1	2.9		
Homiletic	2	5.8		
Secular	2	5.8		
Courtly/epic romance			17	48.5
Epic			2	5.7
History			4	11.4
Allegory			1	2.8
Dream vision			1	2.8
Romance			1	2.8
Lyric			1	2.8
Historiographic			1	2.8

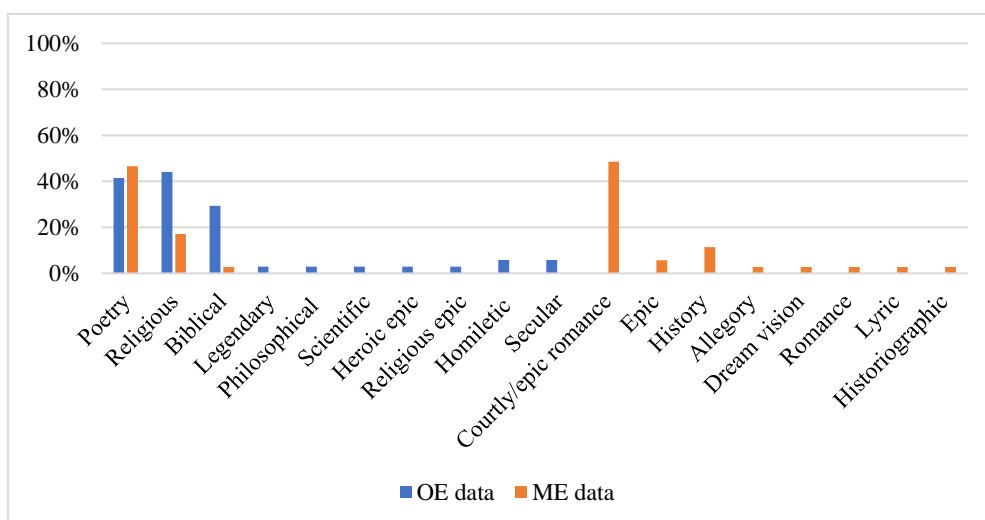


Figure 23. The distribution of the results in OE and ME for the register *poetry*

The prevailing register in OE and ME is prose with 58% of concordances in OE and 50% of concordances in ME. The percentage of concordances in poetry is also high, and the most prominent sub-registers are *religious* and *biblical* (44% and 29%, respectively) in OE and *courty/epic romance* (48%) in ME. Regarding prose, the most salient sub-register in both periods is *homiletic* (27% in OE and 58% in ME). This use of subject-related *-ly* words in OE and ME can be associated with the production of narrative material as well as the use of these words in *romance*.

The prevailing registers in the three periods under study, illustrated in Figure 12 below, are all related to the same use of subject-related *-ly* words, i.e. in fiction. The use of subject-related *-ly* words in specific registers can be related to previous research on the productivity of various morphemes. It has been argued that the productivity of some morphemes may be conditioned by variables as register or domain (Bauer 2014). Therefore, the findings hereby presented support the assumption that the possibility of occurrence of subject-related *-ly* words is determined by specific registers (Valera 2014), particularly *fiction* for the data concerning this thesis.

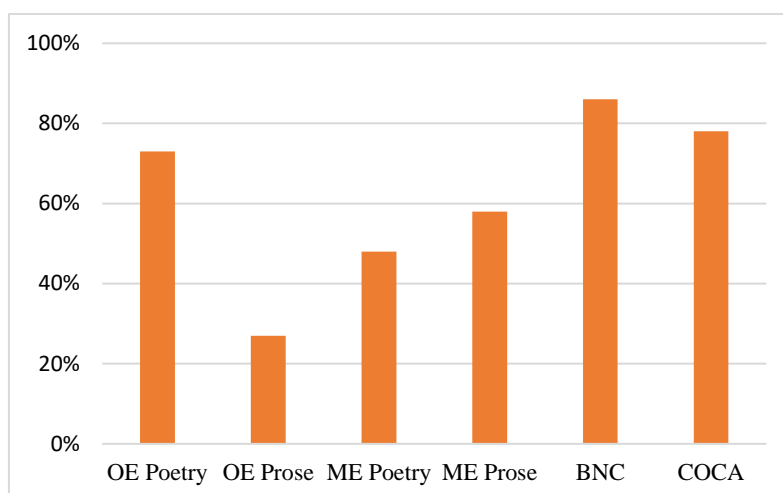


Figure 24. Concordances for the register *fiction* in OE, ME and PDE (percentages)

4.2.3 Summary

This section provides the results of the analysis of 213 concordances containing combinations of inherent and non-inherent adjectives and nouns and 601 concordances containing subject-related *-ly* adverbs and verbs. These results show several features of these units that evidence the occurrence of subject-relatedness outside color adjectives and the heterogeneity in the use of non-inherent adjectives.

Regarding the quantitative analysis of non-inherent adjectives, most non-inherent adjectives in the data sample function as intensifiers and, therefore, express DEGREE. Another adverbial meaning that is most commonly expressed by non-inherent adjectives is SPACE LOCATION, while meanings such as MODALITY, TIME LOCATION and PROCESS are least frequent. The combinations of inherent and non-inherent adjectives with nouns show that inherent and non-inherent adjectives combine with COUNT and INANIMATE nouns, while inherent adjectives combine with CONCRETE nouns, and non-inherent adjectives combine with ABSTRACT nouns. Within the set of non-inherent adjectives, the combinations show that the majority of NON-COUNT, INANIMATE, ABSTRACT nouns combine with adjectives denoting DEGREE, while most CONCRETE nouns combine with adjectives of SPACE LOCATION. The qualitative analysis of non-inherent adjectives provides corpus evidence of adjectives that express adverbial meanings such as DEGREE or MANNER. The results elaborate on the importance of the senses of the adjectives in their ability to develop non-inherent senses, since some senses

of adjectives lead to non-inherent senses, while others are only descriptive and characterize the subject. The data also support previous arguments where this has been considered a process of lexical readjustment of non-inherent adjectives (see §4.2.1.1).

Regarding the quantitative analysis of subject-relatedness, the same patterns have been found in the data collected from OE to PDE. Subject-related *-ly* adverbs combine with DYNAMIC, STANCE, STATIVE, and COPULATIVE verbs in every period of the history of the language. The most common combination in PDE is the one containing dynamic verbs, while around 50% of the patterns in OE and ME contain stative verbs. The least common combination contains stance and copulative verbs, although the percentage of copulative verbs in OE is relatively high considering this type of combination and amounts to 12% of the semantic patterns of this period. The semantic type of adjectives shows a decrease in the use of adjectives denoting human propensity since it was higher in OE, but the percentage decreased in the subsequent periods of the language. Conversely, the use of adjectives denoting states experienced a slight increase from OE to PDE and is the most common semantic type of adjective used for subject-related *-ly* words in each of the periods. The semantic classification of adjectives as controllable and temporary does not present relevant differences, since the complete set of adjectives in every period is [–CONTROL] and more than 70% of cases are [+TEMPORARY]. Finally, the quantitative analysis of the distribution of subject-related *-ly* words show that the prevailing register for these words is *fiction*. In PDE, this is in line with previous research where it is argued that specific registers favor the use of some suffixes. In OE and ME, the registers where the use of subject-related *-ly* words was higher can be associated with the production of narrative text and the use of these units in romance, which can be seen as related to fiction in PDE.

The qualitative analysis of subject-related *-ly* adverbs illustrate the relevance of the lack of semantic compatibility between the clause constituents in the ability of these *-ly* adverbs to be subject-related. This lack of compatibility has been considered a key factor in combinations of stative and copulative verbs with subject-related *-ly* words. The combination of these *-ly* words with copulative verbs is especially relevant, since these verbs link a subject with a subject complement and, regardless of the morphology of subject-related *-ly* words, these return a predicative interpretation. In the PDE data, aspects such as the morphology of the adjectival bases involved in the formation of the *-ly* words are also important, because certain suffixes, such as *-ed*, derive adjectives that refer to the state of the subject and do not allow the adverbial interpretation of the *-ly* words derived from those adjectival bases.

This has been observed when the adjectives derived by *-ed* suffixation have an adjectival counterpart in *-ing*. Thus, taking the adjectives *worried* and *worrying* as an example, the former would block an adverbial interpretation of *worriedly* referring only to the state of the subject, while the latter allows the adverbial interpretation of *worryingly*.

In the OE and ME data, subject-related *-ly* words occur in syntactic structures where they modify the object instead of the subject and show the relevance of polysemy in the ability of these *-ly* units to characterize the subject. In relation to polysemy, some *-ly* words can express adverbial or predicative meaning according to the meaning of the word in a particular example, and the compatibility between the verb and the *-ly* word. This feature is in line with the types of subject-relatedness that have been proposed in PDE, where subject-relatedness can be intrinsic or extrinsic (Valera 2014). Subject-relatedness was reported to occur in color adjectives (Valera 2014), but this chapter presents evidence of subject-related *-ly* words derived from a variety of semantic classes of adjectives so that the productivity of subject-related *-ly* words is not restricted to a narrow semantic class of adjectives. One of the features of these adjectives is that these *-ly* words have been created from stative adjectival bases, i.e. the sense of the adjectives involved in the formation of these words is stative in the examples analyzed. It has been argued that this type of adjectives, namely stative adjectives, cannot take *-ly* suffixation. However, the description of the data provides evidence of *-ly* suffixation of stative adjectival bases and the relevant and irrelevant factors for this type of *-ly* suffixation when a subject-related *-ly* word is created. Thus, the semantic features [–CONTROL] and [+TEMPORARY] have been considered to be relevant factors, while the syntactic structure of the verb phrase and the subject's semantic role have been considered irrelevant factors.

4.3 Discussion

4.3.1 Introduction

The analysis of several lists of concordances for data collection of non-inherent adjectives and subject-related *-ly* adverbs and over 817 examples for data analysis shows that non-inherent adjectives display a wide variety of adverbial meanings and that subject-related *-ly* words are created from adjectival bases of various semantic types. Non-inherent adjectives express adverbial meaning like MANNER, DEGREE, SPACE or TIME LOCATION. These adjectives can be derived from nouns by using several suffixes such as *-al* and *-ic*, or can be morphologically simple, like the adjectives *complete* and *perfect*. Subject-related *-ly* words always express predicative meaning and their adjectival bases

go well beyond color adjectives, which shows that this is not a feature of a narrow semantic class. These *-ly*-marked words can also combine with various types of verbs and in various syntactic structures.

The cases of non-inherent adjectives and subject-related *-ly* words presented in §4.2 show that the separation of adjectives and adverbs is not clear-cut in that these *-ly*-marked and unmarked units exceed the limits of each category within the interface and raise questions about the value of the suffix *-ly* and, more generally, about the classification of adjectives and adverbs:

- i) What is the value of the morphological mark in adjectives and adverbs?
- ii) Does the suffix *-ly* affect the meaning of adjectives and adverbs?
- iii) What is the best classification for presumed adjectives and adverbs?

The main purpose of the present section is to answer these questions. To that end, it is structured as follows: section 4.3.2 presents on the profile of *-ly* words and their ability to express subject-relatedness. Section 4.3.3 focuses on the criteria used to differentiate between inflection and derivation and the relevance of these criteria in the lexical units under study. Section 4.3.3 elaborates on the value of the suffix *-ly* and the categorial status of adjectives and adverbs. Finally, section 4.3.4 summarizes the section.

4.3.2 The profile of *-ly* words

One of the properties of *-ly* words is that some are more liable to display subject-relatedness than others. According to the readiness of *-ly* words to express adverbial or predicative meaning, three groups can be established:

- i) Adverbs that always display subject-orientation. This group of adverbs contains units such as *carefully*. Of the concordances analyzed, all the combinations containing this adverb were classified as subject-oriented. Examples like (166) below show the ability of these adverbs to display subject-orientation, as they can refer to the subject and the verb. The sense of *carefully* ‘with care’ is compatible with the action expressed by the verb (the subject pushes with care or caution avoiding to cause damage). The sense of the adjectival base *careful* ‘applying care, solicitous attention, or pains to what one has to do’ is also activated in the example, so the predicative interpretation of the *-ly* word is possible too.

- (166) Sand **pushed carefully** through, unwilling to damage a single stalk
 Adverbial > [Sand pushed in a careful way through,

		unwilling to damage a single stalk]
Predicative	>	[Sand pushed as he was careful/being careful through, unwilling to damage a single stalk]

In subject-orientation, it can be argued that the state or property of the subject denoted by the adjectival base (predicative interpretation) is what causes the action to be developed in a specific manner (adverbial interpretation) i.e. Sand pushes in a careful way because he is a careful person. Therefore, both the adverbial and predicative interpretations are closely related, because the senses of the adjectival bases and the *-ly* adverbs are compatible with the subject and the predicate, respectively.

- ii) Adverbs that may have two interpretations, as they can be viewed as subject-oriented or subject-related. One of the challenges for the classification of the *-ly* words analyzed is that some *-ly* words pose interpretation problems. It may be argued that an adverbial interpretation of the *-ly* word classified as the second group may apply in a given example, while these examples can also be viewed as instances of subject-relatedness²³. Therefore, the second group of adverbs, such as *gratefully* or *drunkenly*, may be interpreted variously according to the speaker's view of the example or the combination where the example is found. The classification of examples such as (167) is difficult because, even if the adverbial interpretation of the example is fuzzy, some speakers could find it difficult to interpret it as subject-related (because the action expressed by the verb implies movement and a grateful way of crawling may be envisaged).

- (167) The beds passed the children's bounce test, and then they **crawled gratefully** between the crisp cotton sheets and winked out
- | | | |
|-------------|---|--|
| Adverbial | > | ?*[The beds passed the children's bounce test, and then they crawled in a grateful way between the crisp cotton sheets and winked out] |
| Predicative | > | ?*[The beds passed the children's bounce test, |

²³ This consideration comes as a result of the input received from some linguists about examples containing certain adverbs such as *gratefully*. Some linguists consider them tricky adverbs that could sometimes be seen as subject-oriented. Thus, to be on the safe side, in some examples, they are considered intermediate cases.

and then they crawled [being] grateful
between the crisp cotton sheets and winked
out]

Besides, some concordances can be classified as intermediate cases of subject-relatedness, because these are cases of extrinsic subject-relatedness. As seen in previous parts of this thesis (see §4.2.2.1.2.3), some *-ly* words, such as *coldly* or *brokenly*, display subject-relatedness or not, according to the sense of the *-ly* word. This is for the semantic compatibility, or the lack thereof, between the sense of the *-ly* word and the verb. The incompatibility between the clause constituents leads to subject-relatedness.

- iii) Adverbs that always display subject-relatedness. This group includes *-ly* words, such as *toothlessly* and *weightlessly*, that never express adverbial meaning and are subject-related in all the concordances where they occur. The behavior of these adverbs is illustrated in example (168), where the *-ly* word blocks an adverbial interpretation. *-ly* words like *toothlessly* display adverbial meaning because these words do not even have adverbial meaning in the dictionary.

- (168) Her mother **mumbled toothlessly** that, after I had a new wife, my former wife left her and the children to take solace in Buddha
- | | | |
|-------------|---|--|
| Adverbial | > | *[Her mother mumbled in a toothless that,
after I had a new wife, my former wife left her
and the children to take solace in Buddha] |
| Predicative | > | [Her mother mumbled [being] toothless that,
after I had a new wife, my former wife left her
and the children to take solace in Buddha] |

The OED entry for *toothlessly* refers back to the base ('see toothless'), and no definitions are provided for the *-ly*-marked unit. The sense of *toothlessly* seems to be the sense of its adjectival base. The purpose of using *toothlessly* in the example is just to characterize the subject by referring to a physical property of it. The use of these *-ly* words show how subject-related *-ly* words are produced, even when there is no previous adverbial form for the adjectival base in question.

The three groups of *-ly* words above show a gradient in subject-relatedness that goes from *-ly* words that can perform an adverbial function to intermediate cases that can perform adverbial function or be subject-related to *-ly* words that completely block the adverbial interpretation. As with non-inherent adjectives,

one of the most remarkable properties of *-ly* words is their meaning, as subject-relatedness results from the semantic incompatibility between the verb and the *-ly* word. Nevertheless, the semantic class of the adjectival base of the *-ly* words could also play a role in the ability of these words to be subject-related or to perform adverbial meaning. Most of the adjectival bases of subject-related *-ly* words are adjectives that denote STATE such as *worried* or *grateful* (56%) or PHYSICAL PROPERTY such as *toothless* or *white* (33%). These adjectives tend to refer to uncontrollable properties that do not allow the development of the action in a specific way. Thus, the semantic class and the meaning of the adjective determine the compatibility between the resulting *-ly* and the adverbs and the ability of the *-ly* word to express adverbial meaning.

4.3.3 Inflection and derivation in the adjective/adverb interface

The distinction between inflectional and derivational morphology has been long discussed and the arguments about the criteria to apply for this distinction are manifold (see §2.4.2.4). Although there is no agreement on the general definition of inflection and derivation, the literature provides a list of features that are prototypical of one or the other category. They can be summarized as follows (Plank 1994: 1671-1677; Bauer, Lieber & Plag 2013: 533-534; Haspelmath 2024: 54-61):

- i) Inflection typically provides a regular form; derivation may not be regular and can provide a range of forms.
- ii) Inflection is semantically regular; derivation may not present this semantic regularity.
- iii) Inflection is fully productive; derivation may show gaps in productivity.
- iv) Inflection allows the prediction of cell filling; derivation may not be complete.
- v) Inflection is determined by syntax; derivation is not relevant to syntax.
- vi) Inflection is obligatory; derivation may be optional.
- vii) If inflection and derivation occur at the same time, derivational affixes are typically added closer to the root than inflectional affixes.
- viii) Inflection does not add significant meaning to the base; derivation adds meaning to the base.
- ix) Inflection preserves the word-class; derivation may change the grammatical category.

The properties listed above present a dichotomy of inflectional and derivational morphology. This distinction would imply that suffixes that present one of the

properties will have all the others (Plank 1994: 1672). Nevertheless, suffixes that are typically considered as derivational or inflectional can have properties that belong to the other category. The existence of intermediate cases that do not meet all the properties of inflectional or derivational morphology has been considered a reason to argue that there is a common space shared by inflection and derivation (Bybee 1985: 81-87; Dressler 1989; Plag 2003: 196, among others).

As for the classification of *-ly* as inflectional or derivational, one of the major arguments in favor of a single category is concerned with syntax. Inflectional morphology is regarded as obligatory in a syntactic structure, while derivational morphology is not obligatory (Aronoff & Fudeman 2011: 168; Štekauer 2015: 222; Spencer 2016: 37). Based on this assumption, it has been argued that the complementary distribution of adjectives and adverbs is an argument in favor of the single category (Lyons 1966; Edmonds 1976; Sugioka & Lehr 1983; Bybee 1985; Radford 1988; Baker 2003; Payne, Huddleston & Pullum 2010). Non-inherent adjectives and subject-related *-ly* words illustrate this complementary distribution and show the relevance of syntactic position in the use of *-ly*. Regarding non-inherent adjectives, the paraphrases in §4.2 illustrate how some of them can be recovered from an adverbial structure. The use of the adjectival form is required by the syntactic structure where they occur as they precede a noun, but the meaning and function of the adjectives do not differ from the meaning and function of the adverbs in the paraphrases

A similar behavior can be observed in subject-related *-ly* words, because the use of the *-ly* word is preferred to the use of the adjective in certain syntactic structures. In some combinations, as those containing a stance verb, the use of the *-ly*-marked form is required by the verb's need for a syntactic support, which is typically realized by an adverbial. In combination with dynamic verbs, it would also be expected to find the *-ly*-marked form as these verbs are more liable to combine with dynamic words (Kjellmer 1984: 8). However, combinations containing stative or copulative verbs do not meet this criterion, because these verbs are more likely to combine with adjectives. In these cases, the use of *-ly* could be attributed to the need to simplify the syntactic structure in use. Consider example (169), where *appear* is a copulative verb ('seem'), but the use of the *-ly* word makes the syntactic structure possible. If the sentence contains an adjective, the syntactic structure would change too, for example, *then she who was pretty appeared in the light of day [...]*, but this syntactic structure is more complex.

- (169) Then she **appeared prettily** in the light of day, blinking like a child, shaking her shining hair.

One of the factors that can influence the choice of one syntactic structure or another is the register where the examples occur. The majority of examples in the dataset have been found under the same register, namely *fiction*. It could be argued that in certain registers, such as *fiction*, some syntactic structures are preferred. In the case of these adjectives and adverbs, their use in a simple syntactic structure could be preferred because, this syntactic structure

- i) retains the meaning of the complex one, and
- ii) makes easier reading.

Based on these properties of non-inherent adjective and subject-related *-ly* words, it could be argued that the morphology of these adjectives and adverbs is required by the syntactic structure where they occur, which is in line with the argument that the morphology that depends on syntax is inflectional (Miller 1991:95). This syntactic criterion is closely related to the one that classifies inflection as obligatory and derivation as optional. Therefore, *-ly* in the syntactic structures presented is obligatory due to the verb used or to the register where the concordances occur.

Productivity has also been a major argument in the distinction of inflection and derivation. Inflectional processes tend to be more productive (Gaeta 2007: 182; Haspelmath 2024: 56) and can be related to the property of completeness, i.e. inflectional paradigms are complete because they need to provide forms to every slot available (Haspelmath 2024: 56). For example, the inflectional forms for past tense in English show that some processes can be more productive than others, but the general inflectional morphology to express past tense is highly productive (Bauer, Lieber & Plag 2013: 540-541). Nevertheless, the criterion of productivity is not completely satisfactory, since it seems to be a feature of individual affixes (Bauer, Lieber & Plag 2013: 243). In turn, the derivational process of adverb formation in English has been considered very productive. The suffix *-ly* can be attached to almost every adjective in the English lexicon, with exceptions for morphological reasons (Bauer 1983: 89; Bybee 1985: 84; Quirk, Greenbaum, Leech & Svartvik 1985: 1556; Anderson 1992: 195) and for semantic reasons (Kjellmer 1984: 4-8). The latter are concerned with the creation of *-ly* adverbs from stative adjectives. This type of suffixation is considered to be blocked because a dynamic interpretation, i.e. an adverbial interpretation, of the resulting *-ly* word is not possible. It is in the creation of *-ly*-marked units from stative adjectival bases where the inflectional use of *-ly* takes place. The data in §4.3.1.1.3 show that

stative adjectival bases do allow *-ly* suffixation under the appropriate conditions to create subject-related *-ly* words. Thus, the productivity of *-ly* is higher than previously considered, although it has to be noted that, despite *-ly* suffixation, the adverbial interpretation of the *-ly* word is still blocked, so this type of suffixation does not derive a new word.

Another criterion for the distinction between inflection and derivation is the position of derivational and inflectional affixes since the former tend to occur closer to the root. This is not a decisive factor in the classification of *-ly*, because this suffix normally occurs after the derivational suffixes used to create the base adjective. A relevant morphological criterion in the inflection/derivation distinction that is displayed by subject-related *-ly* words is the so-called exclusive morphology (Hockett 1958: 210). According to this criterion, inflectional suffixes reject the addition, to the same base, of another inflectional suffix. In the case of adjectives and adverbs, the inflectional suffixes that can be added to the bases are, for example, those used to express comparative and superlative degree. Subject-related *-ly* words in the data do not allow the use of suffixes to express comparative and superlative degree. Consider example (170a), where *wetlier* cannot be used to express comparative degree. These *-ly* words also reject the use of periphrastic structures to express degree as in (171a).

- (170) Pieces of clay **clattered wetly** on stone
 a. *Pieces of clay **clattered wetlier** on stone
- (171) The crowd **converged thirstily** on the bar, each grabbing a tankard
 a. *The crowd converged **more thirstily** on the bar, each grabbing a tankard

Regarding the morphological regularity of subject-related *-ly* words, there are no inflectional or derivational alternatives to the *-ly* words in the sentence. Inflectional morphemes are characterized by a regular form, while derivational morphemes may present several alternatives for the same meaning, i.e. it is possible to use *warmth* and *warmness* in the same context, but it is not possible to use *-s* or *-es* for the plural of the same word (Bauer, Lieber & Plag 2013: 534; Haspelmath 2024: 55-56). Subject-relatedness is only possible by adding the suffix *-ly* and there are no alternatives to create words with the same properties. The adjectival base used to create subject-related *-ly* words is the only alternative that can be used to express the same meaning. Nevertheless, the use of the adjective poses, as explained above, problems in the syntactic constructions where subject-related *-ly* words occur.

Of the criteria proposed for inflectional and derivational morphology, there are three criteria that are closely related. These criteria involve the semantic regularity of inflection, the inability of inflectional suffixes to add lexical meaning and the creation of word-forms instead of changing the word-class. The analysis in previous parts of this chapter has aimed to show the semantic properties of the adjectives and adverbs under study. The paraphrases used to analyze the data illustrate how the meaning of subject-related *-ly* words does not differ from the meaning of their adjectival bases. Based on the data provided, it can be argued that *-ly* does not add lexical meaning to the adjectival base it is attached to and, therefore, no derivational process can be observed in subject-relatedness. For the *-ly* words in the data to be adverbs derived from adjectives, it would be necessary for them to express any of the meanings associated with *-ly* adverbs, namely *in a ... way*, *to a ... degree*, or *in a ... respect*.

The application of the inflectional and derivational criteria to subject-related *-ly* words shows that the behavior of these *-ly* words meets the criteria of inflectional morphology because of the following properties:

- i) syntactic obligatoriness,
- ii) high productivity,
- iii) exclusive and regular morphology, and
- iv) lack of lexical meaning and word-class change.

4.3.4 The value of *-ly* and the category status of adjectives and adverbs

The classification of adjectives and adverbs has been intensively discussed and is an issue that remains unanswered because of a lack of consensus. The view on the classification of these word-classes is directly affected by the classification of *-ly* as inflectional or derivational. Non-inherent adjectives and subject-related *-ly* words show patterns that exceed the limits of the adjective/adverb interface. The analysis in §4.2.1.1 illustrates that non-inherent adjectives do not need *-ly* suffixation to express adverbial meaning, and subject-related *-ly* words do not express adverbial meaning even if they take *-ly* suffixation. Thus, there is a mismatch between the form and the meaning of these words that challenges their traditional classification. The description of the behavior of *-ly* in the previous section leads to the classification of the suffix as an inflectional one and raises two important questions:

- i) what is the best classification for adjectives and adverbs?

- ii) what is the grammatical meaning and, therefore, the inflectional paradigm of *-ly*?

The literature argues for the classification of the suffix as inflectional or derivational according to several features of *-ly* adverbs. Some linguists base their classification on morphological properties and others on syntactic features of *-ly* adverbs (see 2.4.2.4). However, to the best of my knowledge, no inflectional paradigm has been assigned to or proposed for *-ly*. Inflectional paradigms are usually classified in eight classical dimensions (Stump 2001; Kibort 2010; Corbett 2012; Haspelmath 2024):

- i) case
- ii) person
- iii) number
- iv) gender
- v) tense
- vi) aspect
- vii) mood
- viii) voice

The problem that these classical paradigms present for the classification of *-ly* is that these focus on the word-classes noun and verb. The grammatical meanings assigned to these inflectional paradigms do not apply to the meaning of *-ly*, so they do not provide an answer for the hypothetical inflectional paradigm of *-ly*. In addition to these eight classical inflectional dimensions, adjectives are inflected to express DEGREE, but the inflectional paradigm of adjectives lacks a slot for the grammatical category of *-ly* in subject-relatedness.

The first possibility for an inflectional paradigm that could be considered for the cases under study is a paradigm named RELATEDNESS, but the meaning of *-ly* does not involve the semantic relation between the *-ly* word and the subject. It seems that the inflectional behavior of *-ly* in subject-relatedness is caused by syntactic reasons. Thus, a paradigm that refers to the syntactic value of *-ly* would be more appropriate for its description. Based on this premise, inflectional *-ly* should be classified within a paradigm that considers a grammatical category of morphology that is sensitive to the grammatical environment where the word occurs, as in Bickel & Nichols for other suffixes (2007: 169). If subject-related *-ly* is used because some verbs, such as stance verbs, need syntactic support, the inflectional paradigm of *-ly* could be named ARGUMENTATIVE, referring to the argument that completes the syntactic needs of a verb. Nevertheless, the combinations of *-ly* words show that these also combine with stative and copulative verbs that do not need

syntactic support realized by adverbs, and that register plays an important role. Therefore, an inflectional paradigm for *-ly* should refer to its syntactic properties, but not the syntactic needs of verbs. In this case, a paradigm named DISTRIBUTIONAL referring to ‘position in the sentence’ would be more suitable for *-ly*. This inflectional paradigm for *-ly* provides insight into the classification of subject-related *-ly* words and therefore also the classification of adjectives and adverbs.

This classification of *-ly* has an impact on the classification of adjectives and adverbs. The research conducted in this thesis cannot provide an answer to the general classification of adjectives and adverbs as one or two word-classes, because it only focuses on two specific groups of adjectives and adverbs. However, under the evidence provided, and according to the results and their interpretation, the view that the separation between adjectives and adverbs is not as clear as assumed in the conventional word-class system may be retaken. Based on the properties of *-ly* as an inflectional suffix when it produces subject-related *-ly* words and the meaning of these *-ly* words, subject-related *-ly* words could be considered part of the word-class adjective. Consequently, instead of subject-related *-ly* adverbs, these *-ly* words would be classified as marked adjectives. The classification proposed in this thesis supports the view in previous research (e.g. in Giegerich 2012) and provides additional evidence of the behavior of *-ly* words that is in line with the classification of adjectives and adverbs as a single grammatical category.

4.3.5 Summary

Regarding the meaning of *-ly* words, a scalarity in the ability of these words to express subject-relatedness can be noticed. The data include three groups of *-ly* words according to their interpretation, namely predicative or adverbial. The first group includes subject-oriented *-ly* adverbs that can express adverbial and predicative meaning. The second group includes *-ly* words that are classified as subject-related in the majority of examples, but that could also allow the adverbial interpretation in certain contexts. The third group includes *-ly* words that never allow an adverbial interpretation and, despite their morphology, always characterize the subject. This third group illustrates patterns that exceed the limits in the adjective/adverb interface.

Subject-related *-ly* words pose questions about the value of *-ly*. This discussion shows that the behavior of *-ly* in subject-relatedness comply with the requirements of inflectional morphology. Syntax plays an important role in the use of these *-ly* words, because the morphology of these words seems to be required by the syntactic construction where they occur. The register where

subject-relatedness occurs is also a reason why some syntactic structures could be preferred to others. The productivity of *-ly* is higher in subject-relatedness, because it is not limited to dynamic adjectives and can also be attached to stative adjectives. Subject-relatedness also shows exclusive morphology by which no inflectional affixes can be added to subject-related *-ly* words. Despite their morphology, the lexical meaning of subject-related *-ly* words does not differ from the meaning of their adjectival bases so that no derivational process seems to be involved in their creation and there is no word-class change.

Regarding the value of *-ly* and the classification of adjectives and adverbs, there is no classical inflectional paradigm where *-ly* can be included. Therefore, based on the properties of the suffix, an inflectional paradigm named DISTRIBUTIONAL has been proposed for subject-related *-ly*. This classification of *-ly* has a direct influence on the classification of adjectives and adverbs and subject-related *-ly* words should be classified in the word-class adjective. These results are in line with previous research that argues for the absence of a lexical category adverbs and the existence of marked adjectives.

5. CONCLUSIONS

5.1 Introduction

This thesis explores the adjective/adverb interface and tries to shed some light on the value of the suffix *-ly* and its role in the classification of adjectives and adverbs. The thesis consists of six chapters: Chapter 1 introduces the research topic and elaborates on the justification of the research. Chapter 2 provides the review of the previous literature focusing on the different units within the adjective/adverb interface and their classification. Chapter 3 describes the corpora and the method used for data collection and data analysis. Chapter 4 presents the results obtained and their quantitative and qualitative analysis, and also discusses the classification of adjectives and adverbs as well as the classification of the suffix *-ly*. Finally, this chapter draws some conclusions about the research.

5.2 Background

The classification of words into word-classes has always been the subject of debate and, therefore, several classifications have been put forward according to various criteria. Some classifications based on syntactic principles argue that there are more than ten different word-classes divided into two main groups, namely *parts of speech* and *function words* (Fries 1952). Other classifications that are based on morphological criteria argue that there are eight word-classes that are grouped as open word-classes and closed word-classes (Michael 1970). This debate is not limited to the general classification of word-classes, and adjectives and adverbs have also been a point of discussion with regards to their classification. Traditional grammars consider these word-classes as separate categories where adjectives express properties or states of a noun, and adverbs are used to express circumstance or intensification (Quirk, Greenbaum, Leech & Svartvik 1985).

The separation of these two categories is not so clear-cut as established in traditional grammars, because the words classified within these grammatical categories mix and share several correspondences (Feuillet 1991). Thus, adjectives and adverbs, due to their semantic and syntactic proximity, challenge the distinction between these categories in their categorial space (Givón 1993) or interface (Hummel 2014). This categorial space or interface is the space where the properties displayed by adjectives and adverbs are not typical of the word-class where these are classified and their distinction as members of one word-class or the other poses difficulties.

In the adjective/adverb interface, there are two types of units that could have implications in the classification of these word-classes. These are *-ly*-unmarked units denominated non-inherent adjectives, and *-ly*-marked units classified under the term subject-related *-ly* adverbs. Non-inherent adjectives within the scope of this research are attributive-only adjectives that do not characterize the noun and perform adverbial functions such as intensification. Subject-related *-ly* words are subject-oriented *-ly* adverbs that no longer perform the adverbial function and only retain the predicative one, that is to say, these *-ly* words are participant-oriented. Adjectives and adverb belonging to these groups are not prototypical units of their word-classes and belong in the adjective/adverb interface, for the mismatch between their form and their function.

The study of units that present a mismatch like that of non-inherent adjectives and subject-related *-ly* words has led to classifications that go beyond the adjective/adverb interface. Research on the morphology of *-ly* adverbs argued that the suffix *-ly* involved in the creation of *-ly* adverbs is an inflectional suffix that does not derive adverbs and provides the *-ly*-marked units with various properties. In this view, the word-class adverb is disregarded and there are two types of adjectives according to the use of the suffix *-ly*, namely marked and unmarked adjectives.

5.3 Conclusions

The present research has focused on the identification and description of non-inherent adjectives that do not characterize the subject and perform adverbial functions such as intensification or manner, and *-ly* adverbs that do not perform adverbial function and perform the predicative function typically associated with adjectives. After the analysis of 53,737 and 52,182 concordances to identify non-inherent adjectives and subject-relatedness, respectively, this research provides quantitative and qualitative data of the words under study.

Regarding non-inherent adjectives, the results provide additional evidence on the importance of several factors in the ability of adjectives to develop non-inherent senses:

- i) The first factor is the descriptive meaning of the adjective and is illustrated by adjectives such as *total* or *spectacular*. Some descriptive meanings of these adjectives can characterize the noun they precede, but others develop non-inherent senses of the adjectives and can only express DEGREE or PROCESS.
- ii) The second factor is the semantic compatibility between the adjective and the noun and is closely related to the first factor. There are adjectives such as *real* that develop noun-intensifying uses, because their descriptive meaning is not compatible with the descriptive meaning of the noun.
- iii) The third factor is the use of an indefinite or definite article before the adjective. The data show that, in combinations containing adjectives such as *original*, the use of an indefinite article favors predicative interpretation, while the use of a definite article favors adverbial interpretation.

Regarding subject-relatedness, the description of the results includes synchronic and diachronic data. The present research contributes to the description of subject-related *-ly* adverbs in several ways:

- i) Subject-relatedness is not a feature of a narrow semantic class of adjectives such as color adjectives. Adjectival bases involved in the creation of subject-related *-ly* words are classified within several semantic classes of adjectives:
 - a. properties: adjectives typically referring to physical features of the subject such as *fat*, *heavy*, and *pretty*, among others,
 - b. human propensity: adjectives such as *bilingual*, *envious*, or *competitive*, among others, and,
 - c. mental states: adjectives typically denoting mental states such as *concerned*, *delighted* or *grateful* among others.
- ii) Subject-related *-ly* adverbs occur with a wide variety of semantic types of verbs, namely DYNAMIC, STATIVE, STANCE and COPULATIVE. The same semantic patterns have been found in every period of the language, but the combinations containing dynamic verbs are the most frequent in every period, while combinations containing copulative verbs are least frequent.

- iii) OE and ME subject-related *-ly* adverbs show that the subject is not the only element that can be modified by these *-ly*-marked units. Evidence from OE and ME illustrate the potential for these *-ly* units to modify syntactic objects.
- iv) Diachronic data show the relevance of polysemy in the ability of subject-related *-ly* words to perform the predicative function, since some senses allow predicative interpretation of the *-ly* word, while others are compatible with adverbial meaning. This is in line with the two types of subject-relatedness proposed in the previous literature (Valera 2014), where subject-relatedness can emerge as an intrinsic property of the *-ly* word that will always block its adverbial interpretation, or as an extrinsic property of the *-ly* word that will express adverbial meaning or not, according to the verb that it combines with.
- v) Subject-related *-ly* words show that *-ly* suffixation of stative adjectival bases is possible when the resulting *-ly* word has been created from an adjectival base that presents semantic properties such as [–CONTROL] and [+TEMPORAL]. However, some adjectival bases present constraints in the creation of subject-related *-ly* words depending on the suffix that has been used for the creation of the adjectival base. The results show differences in the ability of adjectives to express subject-relatedness when the suffix used to create the adjective is *-ed* or *-ing*, and *-ful*. When adjectives take *-ly* suffixation, adjectives derived by using the suffixes *-ing* and *-ful* such as *interestingly* or *delightfully* are more liable to express adverbial meaning than those adjectives derived by using the suffix *-ed* such as *interestedly* and *delightedly* that block the adverbial meaning of the resulting *-ly* word and refer to the state of the subject.

The above poses questions about the classification of adjectives and adverbs and the value of *-ly*. The results evidence patterns of adjectives and adverbs that exceed the limits of the adjective/adverb interface. The morphology of these lexical units leads to their classification as two separate word-classes, but their semantics support their classification as one word-class. The properties of the suffix *-ly* meet the conditions of inflectional morphology, such properties being the following:

- i) syntactic obligatoriness,
- ii) high productivity,
- iii) exclusive and regular morphology, and
- iv) lack of lexical meaning and word-class change.

Based on the data provided and the features of *-ly*, this piece of research argues for a classification of *-ly* as an inflectional suffix that provides *-ly*-marked units with a specific position in the sentence and facilitates the use of simple syntactic structures. Since there is no inflectional paradigm that conforms to the properties of *-ly*, it has been argued that an inflectional paradigm called DISTRIBUTIONAL referring to ‘position in the sentence’ might be suitable for these *-ly*-marked units. In this view, subject-related *-ly* words should be considered marked adjectives.

5.4 Limitations and further research

This thesis adds evidence to the adjective/adverb interface and sheds light on the classification of subject-related *-ly* words and adjectives. However, some limitations need to be approached in order to provide a deeper description of the units under study and explore the questions that arise after the results presented above.

The search for non-inherent adjectives during data collection does not include a general list of adjectives. This is due to the limitations presented by the BNC and COCA, namely the corpora did not provide concordance lists when the search syntax for general combinations of adjectives preceding nouns was introduced. This is due to the great number of combinations of this type. Therefore, the searches made to obtain data were limited to adjectives classified as non-inherent in previous research and derived adjectives that respond to searches by suffixes.

Subject-relatedness has been found under a specific register, specifically *fiction*, in both corpora, but the data from the COCA corpus shows a wider variety of registers in which subject-related *-ly* words are used. This could be due to the date of the data in the corpus, since the COCA corpus has been updated every year until 2020, while the BNC contains data until the 1990s. An analysis of the evolution of registers in which subject-relatedness appears over time in PDE could clarify whether the productivity of subject-relatedness has been increasing and expanding to different registers in PDE, or not.

One of the morphological properties of subject-related *-ly* words in PDE is that the suffix used to derive the adjectival bases of these words seems to influence their ability to express subject-relatedness. This can be observed in adjectives that have two forms according to the suffix used to derive them. Therefore, in pairs of adjectives such as *interested/interesting*, *worried/worrying*, *delighted/delightful*, the resulting *-ly* words from the

adjectives ending in *-ed* are more liable to express subject-relatedness. The relevance of the morphology of the adjectival base used to create subject-related *-ly* words remains in need of further research. The data collected does not allow a comparison of all the possible pairs of adjectives that can be found in English, so it could be necessary to search for all the adjectives that have several forms and then use specific searches for every adjective based on a query syntax similar to *[vv*] worriedly*, *[vv*] worryingly*, *[vv*] delightedly*, etc. The list obtained should be analyzed by applying the paraphrases that test the adverbial and predicative interpretation.

Regarding the syntactic structure of sentences containing subject-related *-ly* words, the main position of these *-ly*-marked units in PDE is postverbal, but they occur in various positions in OE and ME. This difference could be caused by limitations of the corpora used to retrieve data in PDE and differences between these corpora and the ones used for OE and ME. Diachronic corpora provide a list of adverbs that include the example where the adverbs occur, but the use of tags to obtain the data in synchronic corpora only provide the syntactic structure specified in the tags. For this reason, it would be necessary to use a different query syntax to search for various syntactic positions of *-ly* words and identify subject-relatedness in PDE. Besides, the distribution of subject-related *-ly* words in the previous periods of the history of English seems to favor the characterization of syntactic objects. Therefore, a query syntax where an adverb occurs in the same position as in OE and ME could be useful to identify or discard the ability of these *-ly* words to characterize the syntactic object in PDE.

The analysis of OE and ME adverbs only covers adverbs starting with the letter A-I. This is caused by the corpus choice and the data available in the corpus when the analysis was developed. Although the corpora chosen present several advantages (see Chapter 3), the development of the OE corpus is work in progress so data for the analysis of subject-relatedness in OE and ME can still be added when new entries of the corpus are available. Thus, the number of subject-related *-ly* words may increase when all the letters of the alphabet are added and the texts can be analyzed in search of subject-relatedness.

Regarding diachronic data, specifically ME adverbs, it could be argued that, due to the leveling process, there could be some confusion in the classification of ME adverbs. The data collection process for the analysis in this thesis has focused on units clearly classified as adverbs and considered the adverbial counterpart to the OE adverbs. This issue could only be avoided by looking at a complete text where the adverb occurs and comparing the form of

the adverb with other forms of the same adverb in other parts of the same text to check whether the other forms of the adverbs carry the adverbial suffix *-e*. However, the corpora used only provided the sentences where the examples occur and we do not have access to the source of the example.

Finally, one of the questions that emerges from the data is whether mobility affects relatedness, i.e. if the subject-related *-ly* words can take a different position in the sentence and still refer to the subject. The scope of the *-ly* words in various positions could be tested by changing the position of the *-ly* words in the dataset and checking their predicative and adverbial meaning. Another possibility is to use synchronic corpora to search for subject-relatedness in *-ly* words in several positions in the sentence. The last option would require a new method to retrieve as many examples as possible.

5. CONCLUSIONES

5.1 Introducción

La presente tesis explora la interfaz adjetivo/adverbio y trata de esclarecer el valor que tiene el sufijo *-ly* en la morfología flexiva y derivativa, así como su rol en la clasificación de adjetivos y adverbios. Esta tesis consiste en cinco capítulos: el capítulo 1 introduce el tema de esta investigación y detalla la justificación de la investigación. El capítulo 2 presenta la revisión de los estudios previos, centrándose en las unidades en la interfaz adjetivo/adverbio y su clasificación. El capítulo 3 describe el método usado en la recolección y el análisis de datos. El capítulo 4 presenta los resultados obtenidos y la discusión de esos resultados que se centra la clasificación de *-ly* en la morfología flexiva y derivativa y la clasificación de adjetivos y adverbios. Finalmente, este capítulo presenta la conclusión de la tesis.

5.2 Antecedentes

La clasificación de las clases de palabras ha sido objeto de numerosos debates y, por lo tanto, varias clasificaciones para las unidades léxicas del inglés han sido propuestas dependiendo de una variedad de criterios. Algunas clasificaciones se basan en principios sintácticos y proponen diez clases de palabras diferentes que se recogen en dos grupos principales, específicamente ‘parts of speech’ y ‘function words’ (Fries 1952). Otras clasificaciones se basan en criterios morfológicos y argumentan que hay ocho clases de palabras que se agrupan en ‘clases de palabras abiertas’ y ‘clases de palabras cerradas’ (Michael 1970). Este debate no está limitado a la clasificación general de palabras, sino que los adjetivos y los adverbios han causado mucho debate. Las gramáticas tradicionales consideran que adjetivos y adverbios son dos clases de palabras separadas, estando los adjetivos relacionados con la expresión de propiedades

o características de un sustantivo y los adverbios con la expresión de manera o circunstancia (Quirk, Greenbaum, Leech & Svartvik 1985).

Los límites entre estas clases de palabras no están claramente establecidos en las gramáticas tradicionales y así se ve reflejado en las propiedades que comparten (Feuillet 1991). Por tanto, la proximidad semántica y sintáctica de adjetivos y adverbios presenta un reto en su clasificación y coloca a algunos miembros de estas categorías en su espacio categorial (Givón 1993) o interfaz (Hummel 2014). Este espacio categorial o interfaz es el espacio en el que las propiedades de adjetivos y adverbios no son las típicamente asociadas con cada clase de palabra y su distinción se dificulta.

En la interfaz adjetivo/adverbio hay dos tipos de unidades que podrían tener repercusión en su clasificación. Estas unidades son los adjetivos no inherentes y los adverbios relacionados con el sujeto. Las primeras son unidades morfológicamente no marcadas que han sido descritas como adjetivos atributivos que no caracterizan al sustantivo que preceden y, en el ámbito de esta tesis, que expresan significado adverbial. Los adverbios relacionados con el sujeto son unidades morfológicamente marcadas que han sido descritas como adverbios orientados al sujeto que solamente retienen la función predicativa típicamente asociada a adjetivos. Estos adjetivos y adverbios muestran un comportamiento que no corresponde a las unidades de estas clases de palabras descritas en las gramáticas tradicionales y, debido a la discordancia entre su forma y su función, se encuentran en la interfaz adjetivo/adverbio.

El estudio de unidades léxicas, como los adjetivos y adverbios en los que se centra esta tesis, ha llevado a clasificaciones de estas clases de palabra que van más allá de los límites de su interfaz. Estudios previos sobre la morfología de los adverbios acabados en *-ly* han argumentado que este sufijo es flexivo. Desde este punto de vista, la clase de palabra adverbio sería eliminada dando lugar a dos tipos de adjetivos, específicamente marcados y no marcados.

5.3 Conclusiones

La presente tesis se ha centrado en la identificación y descripción de adjetivos no inherentes y adverbios relacionados con el sujeto. Tras el análisis de 53.737 concordancias para la recolección de adjetivos no inherentes y 52.182 concordancias para la recolección de adverbios relacionados con el sujeto, esta investigación ofrece datos cuantitativos y cualitativos de estos adjetivos y adverbios.

En relación a los adjetivos no inherentes, los resultados contribuyen a la descripción de los factores relevantes en la habilidad de los adjetivos de desarrollar sentidos no inherentes:

- i) El primer factor es el significado descriptivo de los adjetivos: adjetivos como *total* o *spectacular* muestran que algunos de sus significados descriptivos pueden caracterizar a los sustantivos que estos adjetivos preceden, pero en otras combinaciones los adjetivos desarrollan un sentido no inherente por el que solo expresan GRADO o PROCESO.
- ii) El segundo factor, que está estrechamente relacionado con el primero, es la compatibilidad semántica entre el adjetivo y el sustantivo. Hay adjetivos que aparecen precediendo al mismo sustantivo en varias concordancias, pero la habilidad de caracterizar al sustantivo depende de la compatibilidad semántica entre adjetivo y sustantivo en un contexto sintáctico concreto.

Con respecto a los adverbios relacionados con el sujeto, la descripción de los resultados incluye datos sincrónicos y diacrónicos. La presente tesis contribuye al estudio de la relación al sujeto de la siguiente manera:

- i) La relación al sujeto no es una característica de un grupo de adjetivos concreto, sino que se da en las siguientes clases semánticas de adjetivos:
 - a. adjetivos que expresan propiedades físicas,
 - b. adjetivos que expresan ‘propensión humana’, y
 - c. adjetivos que se refieren a estados mentales.
- ii) Los adverbios relacionados con el sujeto aparecen en una gran variedad de patrones semánticos entre los que hay verbos dinámicos, ‘stance’, estáticos y copulativos.
- iii) El sujeto no es el único elemento al que pueden hacer referencia estos adverbios, ya que los datos diacrónicos muestran que, en los periodos correspondientes al inglés antiguo y al inglés medio, estos adverbios podían aparecer en otra posición sintáctica y caracterizar al objeto sintáctico.
- iv) Los datos diacrónicos muestran la importancia de la polisemia en la habilidad de las unidades morfológicamente marcadas de expresar relación al sujeto. Algunos sentidos de estas palabras permiten una interpretación adverbial, mientras que otros no son compatibles con dicha interpretación. Esta característica está relacionada con los tipos de relación al sujeto propuestos para inglés moderno (Valera 2014).

- v) Los adverbios relacionados con el sujeto permiten la sufijación mediante *-ly* de bases adjetivales estáticas sin que esta sufijación afecte al significado del adjetivo. Los adverbios que muestran esta propiedad tienen dos rasgos semánticos comunes, concretamente [-CONTROL] y [+TEMPORAL]. Los resultados también muestran que en bases adjetivales que pueden formarse con dos sufijos diferentes como, por ejemplo, *interested/interesting* ‘interesado/interesante’, las bases adjetivales formadas con el sufijo *-ed* con más susceptibles a la expresión de relación al sujeto.

Los puntos expuestos en los párrafos anteriores plantean algunas preguntas sobre el valor de *-ly* y la clasificación de adjetivos y adverbios. Los resultados muestran patrones de adjetivos y adverbios que traspasan los límites de su interfaz. La morfología de estas unidades léxicas favorece su clasificación como clases de palabras separadas, pero sus características semánticas apoyan una clasificación unificada. Además, las propiedades del sufijo *-ly* en los adverbios relacionados con el sujeto se ajustan a los criterios de la morfología flexiva, siendo estas propiedades las siguientes:

- i) obligatoriedad sintáctica,
- ii) alta productividad,
- iii) morfología exclusiva que no permite el uso de otros sufijos flexivos, y
- iv) ausencia de significado léxico y, por tanto, cambio de la clase de palabra.

Conforme a los datos descritos y las características del sufijo *-ly*, esta tesis ha propuesto la clasificación de *-ly* como un sufijo flexivo que proporciona a estas unidades morfológicamente marcadas con una posición sintáctica concreta y facilita una estructura sintáctica más simple en registros específicos. Dado que parece no existir un paradigma flexivo que describa el comportamiento de este *-ly*, se ha propuesto que un paradigma denominado DISTRIBUTIONAL con el significado ‘posición sintáctica’ puede ser adecuado para estas unidades marcadas. Según este enfoque, los adverbios relacionados con el sujeto deberían pasar a ser considerados adjetivos marcados.

5.4 Limitaciones y posibles investigaciones futuras

Esta tesis contribuye al estudio de la interfaz adjetivo/adverbio y la clasificación de estas clases de palabras. Sin embargo, hay algunas limitaciones que necesitan ser abordadas para poder proporcionar una descripción más exhaustiva de las unidades objeto de esta investigación.

En la recolección de datos para el estudio de adjetivos no inherentes, no fue posible analizar listas de adjetivos generales. Una de las limitaciones presentadas por BNC y COCA es la imposibilidad de acceder a listas de más de 5.000 bigramas. Además de esto, el número de bigramas que contienen adjetivos seguidos de sustantivos es tan elevado que los corpus no daban resultados. Por tanto, fue necesario hacer búsquedas que incluían adjetivos clasificados como no inherentes en la literatura previa y dividir las búsquedas por sufijos.

La mayoría de los casos de relación al sujeto han sido encontrados en un mismo registro, concretamente ficción y prosa, pero COCA muestra una variedad de registros más amplia que BNC. Este fenómeno puede estar causado por la fecha en la que cada corpus ha sido actualizado, ya que COCA contiene datos más actuales. Un análisis cronológico de la evolución de los registros en los casos de relación al sujeto podría clarificar si el uso de este tipo de unidades se está extendiendo a otros registros.

Una de las propiedades de los adverbios relacionados con el sujeto es el sufijo con el que sus bases adjetivales han sido creadas. Como se ha explicado anteriormente, hay sufijos que son más susceptibles a crear adverbios relacionados con el sujeto. Los datos obtenidos han permitido comparar algunos pares de adjetivos, pero la medida en la que esto pasa o en cuántos pares de adjetivos se da esta distinción son temas que necesitan ser abordados en investigaciones futuras.

La estructura sintáctica en la que pueden aparecer los adverbios relacionados con el sujeto en inglés moderno no ha sido completamente explorada. La sintaxis de búsqueda usada en los corpus restringía las búsquedas a adverbios en posición posverbal. Como los datos de inglés antiguo y medio muestran que estos adverbios pueden aparecer en otras posiciones sintácticas, sería necesario elaborar otras sintaxis de búsqueda y analizar los resultados obtenidos para identificar adverbios que pueden caracterizar elementos nominales. Con relación a la sintaxis, una de las preguntas que puede surgir de estos datos es si la movilidad afecta al referente del adverbio. Este estudio podría hacerse cambiando la posición de las unidades marcadas en nuestros datos o utilizando sintaxis de búsquedas diferentes en los corpus.

En relación con los datos diacrónicos, los datos analizados solo cubren los adverbios que comienzan por las letras A-I porque estas eran las letras disponibles en el corpus en el momento de recolección de datos. Un análisis del resto de adverbios podría incrementar el número de casos de relación al sujeto

y mostrar nuevas propiedades de estas unidades o aportar más evidencias a los datos descritos.

Finalmente, uno de los problemas en el análisis de datos diacrónicos es el proceso de nivelación que tuvo lugar mayormente durante el periodo de inglés medio. El método elaborado para la recolección de datos tuvo en cuenta este proceso y solo se analizaron adverbios que eran considerados los homólogos de los adverbios en inglés antiguo. Un análisis más preciso requeriría el análisis de toda las unidades adjetivales y adverbiales del texto en el que aparece el ejemplo considerado como relación al sujeto para comprobar si el proceso de nivelación se refleja en el texto. Sin embargo, los corpus utilizados proporcionan las oraciones donde cada ejemplo aparece por lo que no hay acceso al texto completo.

APPENDICES

Appendix 1. Semantic analysis: PDE subject-related -ly adverbs

	Semantic	features							
			Subject				Verb		Adjective
Examples BNC	Predicative	Adverbial	Concrete	Anim	Hum	Semantic Role	Stative/dynamic	Process	Stative/dynamic
soldiers gathered sleepily	1	1	C	A	H	AG	D	MAT	S
I walked quickly		1	C	A	H	AG	STANCE - D	MAT	D
she accelerated thankfully	1		C	A	H	AG	D	MAT	S
Their shotguns aimed hungrily	1		C	A	NH	AG	D	MAT	S
Corbett asked disappointedly	1		C	A	H	SAY	D	VER	S
She asked colourlessly	1		C	A	H	SAY	D	VER	S
[Mr Berkley] burrowed gratefully	1		C	A	H	AG	D	MAT	S
Steve breathed worriedly	1		C	A	H	AG	D	MAT	S
The breeze blew freshly	1		A	IN	NH	PHE	D	MAT	S
He bit thoughtfully	1		C	A	H	AG	D	MAT	S
Robyn bit worriedly	1		C	A	H	AG	D	MAT	S
We clung helplessly	1		C	A	H	AG	D	MAT	S
Cheryl clutched hopelessly	1		C	A	H	AG	D	MAT	S
She collapsed wearily	1		C	A	H	AFF	D	MAT	S
She called hopefully	1		C	A	H	SAY	D	VER	S
Paulette came sleepily	1		C	A	H	AG	D	MAT	S
He charged drunkenly	1		C	A	H	AG	D	MAT	S

Fakrid croaked angrily	1		C	A	H	AG	D	MAT	S
She cried thankfully	1		C	A	H	AG	S	MAT	S
Her finger curled thankfully	1		C	A	H	AG	D	MAT	S
He crawled gratefully	1		C	A	H	AG	D	MAT	S
Kalchu continued absentmindedly	1		C	A	H	AG	D	MAT	S
They continued thankfully	1		C	A	H	AG	D	MAT	S
She confirmed dazedly	1		C	A	H	SAY	D	VER	S
Bees droned happily	1		C	A	NH	AG	D	MAT	S
She departed uncomfortably	1		C	A	H	AG	D	MAT	S
She demanded sleepily	1		C	A	H	SAY	D	VER	S
She denied confusedly	1		C	A	H	SAY	D	VER	S
She demanded frustratedly	1		C	A	H	SAY	D	VER	S
All decamped gratefully	1		C	A	H	AG	D	MAT	S
She decided angrily	1		C	A	H	EXP	D	MEN	S
She decided confusedly	1		C	A	H	EXP	D	MEN	S
She decided sleepily	1		C	A	H	EXP	D	MEN	S
The day dawned snowily	1		?	IN	NH	EVENT	S	MAT	S
His eyes flickered uncomfortably	1		C	A	H	AG	D	MAT	S
Her eyes flickered worriedly	1		C	A	H	AG	D	MAT	S
Crow flew guiltily	1		C	A		AG	D	MAT	S
Wolfe's leg muscles flexed impotently	1		C	A	H	AG	S	MAT	S

Her shorts flapped wetly	1		C	IN	NH	INS	D	MAT	S
The reflected flames flashed tinily	1		C	IN	NH	PHE	S	MAT	S
His limbs flailed impotently	1		C	A	H	AFF	S	MAT	S
Flully young flopped sleepily	1		C	A	H	AFF	S	MAY	S
Blanche followed thankfully	1		C	A	H	AG	D	MAT	S
She fumed jealously, irately	1		C	A	H	EXP	S	MEN	S
He fidgeted disconsolately	1		C	A	H	AG	D	MAT	S
He fell gratefully	1		C	A	H	AG	S	MAT	S
Who fell dementedly	1		C	A	H	AG	S	MAT	S
He faded impotently	1		C	A	H	EXP	S	MEN	S
His sandy hair grew spikily	1		C	A	H	AFF	D	MAT	S
He grinned guiltily	1		C	A	H	AG	D	MAT	S
She giggled sleepily	1		C	A	H	AG	D	MAT	S
The big studio hushed expectantly	1		C	IN	NH	AG	D	MAT	S
It hung impermeably	1		C	IN	NH	INS	D	MAT	S
A filthy dress hung shapelessly	1		C	IN	NH	INS	D	MAT	S
Portadown forwards hovered hungrily	1		C	A	H	AG	D	MAT	S
She hoped guiltily	1		C	A	H	EXP	S	MEN	S
His chin jutted sexily	1		C	A	H	CARR	S	REL	S
He kicked irritably	1		C	A	H	AG	D	MAT	S
He kept faithfully	1		C	A	H	AG	D	MAT	S

She listened incredulously	1		C	A	H	AG	D	MAT	S
Robyn listened helplessly	1		C	A	H	AG	D	MAT	S
He only listened interestedly	1		C	A	H	AG	D	MAT	S
Robbie listened uncomfortably	1		C	A	H	AG	D	MAT	S
He looked ashamedly	1		C	A	H	AG	D	MAT	S
They looked impertinently	1		C	A	H	AG	D	MAT	S
She looked determinately	1		C	A	H	AG	D	MAT	S
Blunt looked confusedly	1		C	A	H	AG	D	MAT	S
I leapt gratefully	1		C	A	H	AG	D	MAT	S
He laughed disgustedly	1		C	A	H	AG	D	MAT	S
White willows which marched thirstily	1		C	A-PERS	NH	AG	D	MAT	S
Nathan moaned helplessly	1		C	A	H	AG	D	MAT	S
She moved breathlessly	1		C	A	H	AG	D	MAT	S
Jenna muttered frustatedly	1		C	A	H	AG	D	MAT	S
Laura muttered helplessly	1		C	A	H	AG	D	MAT	S
He muttered dejectedly	1		C	A	H	AG	D	MAT	S
He muttered agitatedly	1		C	A	H	AG	D	MAT	S
Jenna mused thankfully	1		C	A	H	EXP	D	MEN	S
Maggie murmured excitedly	1		C	A	H	SAY	D	VER	S
She mumbled confusedly	1		C	A	H	SAY	D	VER	S
Teal moved worriedly	1		C	A	H	AG	D	MAT	S

She noticed thankfully	1		C	A	H	EXP	S	MEN	S
Ace nodded guiltily	1		C	A	H	AG	D	MAT	S
Hillary nodded confusedly	1		C	A	H	AG	D	MAT	S
Gwen murmured thoughtfully	1		C	A	H	SAY	D	VER	S
The magistrate nodded distractedly	1		C	A	H	AG	D	MAT	S
Melissa nibbled thoughtfully	1		C	A	H	AG	D	MAT	S
She offered distractedly	1		C	A	H	AG	D	MAT	S
She opened sincerely	1		C	A	H	SAY	D	VER	S
She picked absent-mindedly	1		C	A	H	AG	D	MAT	S
Garvey picked thoughtfully	1		C	A	H	AG	D	MAT	S
She pondered anxiously	1		C	A	H	EXP	D	MEN	S
The nipple popped wetly	1		C	A	H	AFF	S	MAT	S
Melissa played thoughtfully	1		C	A	H	AG	D	MAT	S
She pleaded helplessly	1		C	A	H	SAY	D	VER	S
Nadirpur peered worriedly	1		C	A	H	AG	D	MAT	S
The engine purred throatily	1		C	IN	NH	AG	D	MAT	S
He puffed thoughtfully	1		C	A	H	AG	D	MAT	S
Luke quipped amusedly	1		C	A	H	SAY	D	VER	S
One jet-black eyebrow quirked disbelievingly	1		C	A	H	AG	S	MAT	S
A female mallard quacked sleepily	1		C	A	NH	AFF	S	MAT	S
He queried interestedly	1		C	A	H	SAY	D	VER	S

She queried helplessly	1		C	A	H	SAY	D	VER	S
I replied confusedly	1		C	A	H	SAY	D	VER	S
He remarked disappointedly	1		C	A	H	SAY	D	VER	S
He repeated disgustedly	1		C	A	H	SAY	D	VER	S
Everton regrouped bad-temperedly	1		C	A	H	AG	D	MAT	S
He refuted disgustedly	1		C	A	H	AG	D	MAT	S
The magistrate refused angrily	1		C	A	H	AG	D	MAT	S
She remained thoughtfully	1		C	A	H	CAR	COP - S	REL	S
She reached angrily	1		C	A	H	AG	D	MAT	S
He ran breathlessly	1		C	A	H	AG	D	MAT	S
Denis reflected resignedly	1		C	A	H	EXP	S	MEN	S
He reflected aggrievedly	1		C	A	H	EXP	S	MEN	S
Pumfrey reflected comfortably	1		C	A	H	EXP	S	MEN	S
The jockey recalled delightedly	1		C	A	H	EXP	S	MEN	S
She reasoned thoughtfully	1		C	A	H	EXP	S	MEN	S
She realised dazedly	1		C	A	H	EXP	S	MEN	S
She rolled helplessly	1		C	A	H	AG	S	MAT	S
The engine roared throatily	1		C	IN	NH	AG	D	MAT	S
He responded expresionlessly	1		C	A	H	SAY	D	VER	S
Several who...reported delightedly	1		C	A	H	SAY	D	VER	S
Robbie retorted breathlessly	1		C	A	H	AG	D	MAT	S

Luke resumed disgustedly	1		C	A	H	SAY	D	VER	S
Pike smiled drunkenly	1		C	A	H	AG	D	MAT	S
I slumped dazedly	1		C	A	H	AFF	S	MAT	S
Her grip slipped helplessly	1		C	IN	NH	AG	S	MAT	S
He slurred drunkenly	1		C	A	H	SAY	D	VER	S
He sighed frustratedly	1		C	A	H	AG	D	MAT	S
She sighed helplessly	1		C	A	H	AG	D	MAT	S
She sighed thoughtfully	1		C	A	H	AG	D	MAT	S
It seemed obscurely	1		C	IN	NH	CAR	COP	REL	S
Filmer said interestedly	1		C	A	H	SAY	D	VER	S
Jaq said anguishedly	1		C	A	H	SAY	D	VER	S
She sagged defeatedly	1		C	A	H	AFF	S	MAT	S
Tents sagged emptily	1		C	IN	NH	AFF	S	MAT	S
He said concernedly	1		C	A	H	SAY	D	VER	S
Surkov said drunkenly	1		C	A	H	SAY	D	VER	S
She said defeatedly	1		C	A	H	SAY	D	VER	S
He said frustratedly	1		C	A	H	SAY	D	VER	S
She sat wetly	1		C	A	H	AG	STANCE - D	MAT	S
The new dog sat sleepily	1		C	A	NH	AG	STANCE - S	MAT	S
Robbie said thankfully	1		C	A	H	SAY	D	VER	S
Her gaze sank thoughtfully	1		C	A	H	AG	S	MAT	S

Girls sank helplessly	1		C	A	H	AFF	S	MAT	S
He sweated coldly	1		C	A	H	AG	S	MAT	S
She stood undecidedly	1		C	A	H	AG	STANCE	MAT	S
She stood worriedly	1		C	A	H	AG	STANCE	MAT	S
Other trains stood emptily	1		C	IN	NH	AG	STANCE	MAT	S
He sniffed wetly	1		C	A	H	AG	D	MEN	S
The captain's wife smiled toothlessly	1		C	A	H	AG	D	MAT	S
She spoke guiltily	1		C	A	H	SAY	D	VER	S
He stared drunkenly	1		C	A	H	AG	D	MAT	S
She sprang guiltily	1		C	A	H	AG	D	MAT	S
Katherine turned guiltily away	1		C	A	H	AG	D	MAT	S
Merrill turned uninterestedly away	1		C	A	H	AG	D	MAT	S
Larsen tumbled breathlessly	1		C	A	H	AG	S	MAT	S
Water that trickled coldly	1		C	IN	NH	PHE	S	MAT	S
He thought grumpily	1		C	A	H	EXP	S	MEN	S
She thought disappointedly	1		C	A	H	EXP	S	MEN	S
She thought disconsolately	1		C	A	H	EXP	S	MEN	S
She thought dejectedly	1		C	A	H	EXP	S	MEN	S
She thought absently	1		C	A	H	EXP	S	MEN	S
She thought abstractedly	1		C	A	H	EXP	S	MEN	S
She thought irritatedly	1		C	A	H	EXP	S	MEN	S

Andrew thought jealously	1		C	A	H	EXP	S	MEN	S
Isabel thought perplexedly	1		C	A	H	EXP	S	MEN	S
He thought muzzily	1		C	A	H	EXP	S	MEN	S
The other throbbed guiltily	1		C	A	H	AG?	S	MAT	S
She thought worriedly	1		C	A	H	EXP	S	MEN	S
Two men walked thankfully	1		C	A	H	AG	STANCE	MAT	S
Kelly walked thoughtfully	1		C	A	H	AG	STANCE	MAT	S
She watched dazedly	1		C	A	H	AG	D	MAT	S
Everyone waited irritably	1		C	A	H	AG	STANCE	MAT	S
She waited irritably	1		C	A	H	AG	STANCE	MAT	S
He waited distractedly	1		C	A	H	AG	STANCE	MAT	S
She wailed frustratedly	1		C	A	H	AG	D	MAT	S
Stella went bad-temperedly	1		C	A	H	AG	D	MAT	S
We watched thankfully	1		C	A	H	AG	D	MAT	S
She wondered thoughtfully	1		C	A	H	EXP	S	MEN	S
He whispered worriedly	1		C	A	H	AG	D	MAT	S
Isabel wondered agitatedly	1		C	A	H	EXP	S	MEN	S
	Semantic	features							
			Subject				Verb		Adjective
Examples COCA	Predicative	Adverbial	Concrete	Anim	Hum	Semantic Role	Stative/dynamic	Process	Stative/dynamic
my dad ate sullenly	1		C	A	H	AG	D	MAT	S

we ate thoughtfully	1		C	A	H	AG	D	MAT	S
they both assented seriously	1		C	A	H	AG	D	MAT	S
he asked woundedly	1		C	A	H	SAY	D	VER	S
he ate absentmindedly	1		C	A	H	AG	D	MAT	S
she ate gratefully and revenously	1		C	A	H	AG	D	MAT	S
my father asked puzzledly	1		C	A	H	SAY	D	VER	S
I asked drunkenly	1		C	A	H	SAY	D	VER	S
He asked expressionlessly	1		C	A	H	SAY	D	VER	S
We argued drunkenly	1		C	A	H	SAY	D	VER	S
She appeared prettily	1		C	A	H	CARR	COP	REL	S
Color applied transparently or semitransparently	1		A	IN	NH	AFF	D	MAT	S
The father answered absentmindedly	1		C	A	H	SAY	D	VER	S
I answered embarrassedly	1		C	A	H	SAY	D	VER	S
Walls angled blankly	1		C	IN	NH	AFF	D	MAT	S
Val accepted grimly	1		C	A	H	AG	D	MAT	S
I accepted gratefully	1		C	A	H	AG	D	MAT	S
She added distractedly	1		C	A	H	SAY	D	VER	S
I agreed absent-mindedly	1		C	A	H	SAY	D	VER	S
Peter agreed distractedly	1		C	A	H	SAY	D	VER	S
Necks of the horses bulged tensely	1		C	A	NH	AFF	S	MAT	S

He bumbled absentmindedly	1		C	A	H	AG	D	MAT	S
Her own voice broke tearfully	1		C	A		AFF	S	MAT	S
He brushed distractedly	1		C	A	H	AG	D	MAT	S
The fly buzzed desperately	1		C	A	H	AG	D	MAT	S
It (gasoline) burned cleanly	1		C	IN	NH	AFF	S	MAT	S
Torches burned smokily	1		C	IN	NH	INS	S	MAT	S
The others burned darkly	1		C	IN	NH	AFF	S	MAT	S
A light burned palely	1		C	IN	NH	INS	S	MAT	S
Burnt Mountain beetled darkly	1		C	IN	NH	CARR	S	REL	S
It bloomed darkly	1		C	IN	NH	INS	S	MAT	S
He blinked redly	1		C	A	H	AG	D	MAT	S
My heart beat proudly	1		C	A		AFF	S	MAT	S
Gerald battled grimly	1		C	A	H	AG	D	MAT	S
Gino barked humorlessly	1		C	A	NH	AG	D	MAT	S
We began hungrily	1		C	A	H	AG	D	MAT	S
All bowed prayerfully	1		C	A	H	AG	D	MAT	S
He boasted indiscreetly	1		C	A	H	AG	D	MAT	S
He blinked wetly	1		C	A	H	AG	D	MAT	S
O'Riley blinked tiredly	1		C	A	H	AG	D	MAT	S
She blew thoughtfully	1		C	A	H	AG	D	MAT	S
He blinked helplessly	1		C	A	H	AG	D	MAT	S

He bit thoughtfully	1		C	A	H	AG	D	MAT	S
He cycled competitively	1		C	A	H	AG	D	MAT	S
Her lips curved humorlessly	1		C	A		AG	D	MAT	S
I came gloomily	1		C	A	H	AG	D	MAT	S
Mary Dyson chewed abstractedly	1		C	A	H	AG	D	MAT	S
He challenged lazily	1		C	A	H	SAY	D	VER	S
Pieces of clay clattered wetly	1		C	IN	NH	INS	S	MAT	S
Saquina clapped delightedly	1		C	A	H	AG	D	MAT	S
Wenxue Ru chuckled distractedly	1		C	A	H	AG	D	MAT	S
Ed chewed reflectively	1		C	A	H	AG	D	MAT	S
She climbed gratefully	1		C	A	H	AG	D	MAT	S
A wind clung coldly	1		A	IN	NH	FOR	D	MAT	S
Fog clutched wetly	1		A	IN	NH	FOR	D	MAT	S
She collapsed bonelessly	1		C	A	H	AFF	S	MAT	S
The crowd converged thirstily	1		C	A	H	AG	D	MAT	S
She cried incredulously	1		C	A	H	AG	S	MAT	S
I cried sadly	1		C	A	H	AG	D	MAT	S
Those massive teeth crunched hungrily	1		C	A			D	MAT	S
They crawled gratefully	1		C	A	H	AG	D	MAT	S
The sea crept wetly	1		C	IN	NH	FOR	D	MAT	S
Alicia concluded disgustedly	1		C	A	H	SAY	D	VER	S

Jack commented irritably	1		C	A	H	SAY	D	VER	S
His father continued irritably	1		C	A	H	SAY	D	VER	S
The voice continued indestructibly	1		C	A	H?	SAY	D	VER	S
He dug thoughtfully	1		C	A	H	AG	D	MAT	S
I drove blissfully	1		C	A	H	AG	D	MAT	S
They drove proudly	1		C	A	H	AG	D	MAT	S
Most students drooled sleepily	1		C	A	H	AG	D	MAT	S
I drew distractedly	1		C	A	H	AG	D	MAT	S
He dreamed wistfully	1		C	A	H	EXP	D	MEN	S
Who dreamt drunkenly	1		C	A	H	EXP	D	MEN	S
Ben dozed contentedly	1		C	A	H		D	MAT	S
He dozed dreamlessly	1		C	A	H		D	MAT	S
Her satin dress dragged dirtily	1		C	IN	NH	AFF	S	MAT	S
She descended gratefully	1		C	A	H	AG	D	MAT	S
Pope descended happily	1		C	A	H	AG	D	MAT	S
Bradshaw decided angrily	1		C	A	H	EXP	D	MEN	S
Artus decided sadly	1		C	A	H	EXP	D	MEN	S
Young Vietnamese died innocently	1		C	A	H	AFF	S	MAT	S
He dipped hungrily	1		C	A	H	AG	D	MAT	S
I dived thankfully	1		C	A	H	AG	S	MAT	S
Dot edged hopefully	1		C	A	H	AG	D	MAT	S

The speaker ended angrily	1		C	A	H	SAY	D	VER	S
Rachel escaped gratefully	1		C	A	H	AG	D	MAT	S
The lords erupted angrily	1		C	A	H	AG	S	MAT	S
Jack enjoyed absentmindedly	1		C	A	H	EXP	S	MEN	S
Mr. Hans explained drunkenly	1		C	A	H	SAY	D	VER	S
Another student expatiated proudly	1		C	A	H	SAY	D	VER	D?
Barnett exited thoughtfully	1		C	A	H	AG	D	MAT	S
I floundered numbly	1		C	A	H	AG	D	MAT	D?
Mrs. Rougier's smile fluttered hesitantly	1		C	A	H	AFF	S	MAT	S
Goosey Lucy fluttered indignantly	1		C	A	H	AG	D	MAT	S
The last survivor focused desperately	1		C	A	H	AG	D	MAT	S
They focused immaturely	1		C	A	H	AG	D	MAT	S
Teal followed curiously	1		C	A	H	AG	D	MAT	S
Julia followed numbly	1		C	A	H	AG	D	MAT	S
Yellow light flared noiselessly	1		C	A	NH	INS	S	MAT	S
Her thoughts flapped worriedly	1		A	IN	NH		S	MAT	S
Liberty flashed sleepily	1		C	A	H	AG	S	MAT	S
Her eyes flicked irritably	1		C	A	H	AG	D	MAT	S
She fled gratefully	1		C	A	H	AG	D	MAT	S
Her eyes flitted worriedly	1		C	A	H	AG	D	MAT	S

The gas lamp flickered lonelily	1		C	IN	NH	INS	S	MAT	S
Al his guests feasted contentedly	1		C	A	H	AG	D	MAT	S
Her hair fell silkily	1		C	A	H	AFF	S	MAT	S
The beast fed contentedly	1		C	A	NH	AG	D	MAT	S
The four pups fed hungrily	1		C	A	NH	AG	D	MAT	S
Andrew and I fell drunkenly	1		C	A	H	AFF	S	MAT	S
We felt dizzily	1		C	A	H	AFF	S	MAT	S
He fiddled absent-mindedly	1		C	A	H	AG	D	MAT	S
He fiddled absently	1		C	A	H	AG	D	MAT	S
He frowned irritably	1		C	A	H	AG	D	MAT	S
He frowned absently	1		C	A	H	AG	D	MAT	S
Darlene gazed abstractedly	1		C	A	H	AG	D	MAT	S
The mouth gaped wetly	1		C	A		AG	S	MAT	S
Bucktoothed rodents galloped fatly	1		C	A	NH	AG	D	MAT	S
She gazed dazedly	1		C	A	H	AG	D	MAT	S
Spada's eyes gazed distractedly	1		C	A	H	AG	D	MAT	S
Casimir gazed dizzily	1		C	A	H	AG	D	MAT	S
She gazed gratefully	1		C	A	H	AG	D	MAT	S
Russell's thick green lawn glittered wetly	1		C	IN	NH	INS	S	MAT	S
She gnawed wetly	1		C	A	H	AG	D	MAT	S
Joey glanced gratefully	1		C	A	H	AG	D	MAT	S

The Persian opera singer giggled drunkenly	1		C	A	H	AG	D	MAT	S
Miss DeWitt glared tiredly	1		C	A	H	AG	D	MAT	S
It (the ball) groaned wetly	1		C	IN	NH	INS	S	MAT	S
The trees grew wetly	1		C	IN	NH	CARR	COP	MAT	S
His long stringy black hair hung thinly	1		C	A	H?	AFF	D	MAT	S
The family cat hung soggily	1		C	A	NH	AG	D	MAT	S
Superstition hung dustily	1		A	IN	NH	PHE	D	MAT	S
Those attendant structures hulked emptily	1		C	IN	NH		S	MAT	S
Helicopters hummed worriedly	1		C	IN	NH	INS	D	MAT	S
You howled hungrily	1		C	A	H	SAY	D	VER	S
Dog-Dog hopped gratefully	1		C	A	NH	INS	D	MAT	S
The kids hooted delightedly	1		C	A	H	AG	D	MAT	S
A car honked dazedly	1		C	IN	NH	INS	D	MAT	S
He held unconcernedly	1		C	A	H	AG	D	MAT	S
Eliza insisted irritably	1		C	A	H	SAY	D	VER	S
The angler inquired expectantly	1		C	A	H	SAY	D	VER	S
Phenom interjected hopefully	1		C	A	H	SAY	D	VER	S
He jogged breathlessly	1		C	A	H	AG	D	MAT	S
Which (pockets) jangled defiantly	1		C	A	H	LOC	D	MAT	S
The pilot kicked worriedly	1		C	A	H	AG	D	MAT	S

Those mountains loomed blackly	1		C	IN	NH		S	MAT	S
His cousin Riley loomed blondly	1		C	A	H	AG	D	MAT	S
Two dogs lounged happily	1		C	A	NH	AG	D	MAT	S
Silverton listened absently	1		C	A	H	AG	S	MAT	S
He listened absentmindedly	1		C	A	H	AG	S	MAT	S
Wan listened absorbedly	1		C	A	H	AG	S	MAT	S
The children listened delightedly	1		C	A	H	AG	D	MAT	S
We listened sleepily	1		C	A	H	AG	D	MAT	S
He listened proudly	1		C	A	H	AG	D	MAT	S
They listened jealously	1		C	A	H	AG	D	MAT	S
I listened half-distractedly	1		C	A	H	AG	S	MAT	S
She listened hopefully	1		C	A	H	AG	D	MAT	S
Customers lingered absentmindedly	1		C	A	H	AG	D	MAT	S
The bustard lifted heavily	1		C	A	H	AG	D	MAT	S
She lived bilingually	1		C	A	H	AG	STANCE - D	MAT	S
He looked sightlessly	1		C	A	H	AG	D	MAT	S
He looked puzzledly	1		C	A	H	AG	D	MAT	S
I looked absentmindedly	1		C	A	H	AG	D	MAT	S
The man looked disappointedly	1		C	A	H	AG	D	MAT	S
He looked delightedly	1		C	A	H	AG	D	MAT	S
Skye looked confusedly	1		C	A	H	AG	D	MAT	S

Laurence leaned gratefully	1		C	A	H	AG	D	MAT	S
The provincial governor leafed absentmindedly	1		C	A	H	AG	D	MAT	S
He leaned breathlessly	1		C	A	H	AG	D	MAT	S
She lay stubbornly	1		C	A	H	AG	STANCE - D	MAT	S
Most left unhappily	1		C	A	H	AG	D	MAT	S
Killen left angrily	1		C	A	H	AG	D	MAT	S
Roger's eyes landed bemusedly	1		C	A		AG	D	MAT	S
His thick back hair matted wetly	1		C	A		AFF	S	MAT	S
Molly mewled drowsily	1		C	A	H	AG	D	MAT	S
14- and 15-years olds milled excitedly	1		C	A	H	AG	D	MAT	S
Students and staff milled expectantly	1		C	A	H	AG	D	MAT	S
She moaned sleepily	1		C	A	H	SAY	D	VER	S
Red Star moaned gratefully	1		C	A	H	SAY	D	VER	S
The ladies moved sadly	1		C	A	H	AG	D	MAT	S
Mavis Staples moved seriously	1		C	A	H	AG	D	MAT	S
She murmured disappointedly	1		C	A	H	SAY	D	VER	S
Anna murmured hungrily	1		C	A	H	SAY	D	VER	S
His father murmured irritably	1		C	A	H	SAY	D	VER	S
He mumbled absentmindedly	1		C	A	H	SAY	D	VER	S
He munched absentmindedly	1		C	A	H	AG	D	MAT	S

He mumbled drunkenly	1		C	A	H	SAY	D	VER	S
He mused absently	1		C	A	H	AG	D	MEN	S
He murmured resignedly	1		C	A	H	SAY	D	VER	S
The crowd muttered disappointedly	1		C	A	H	AG	D	MAT	S
She muttered irritably	1		C	A	H	AG	D	MAT	S
He noted angrily	1		C	A	H	EXP	S	MEN	S
One noted delightedly	1		C	A	H	EXP	S	MEN	S
The doctor noted gratefully	1		C	A	H	EXP	S	MEN	S
She nodded tearfully	1		C	A	H	AG	D	MAT	S
Yaspers nodded imperturbably	1		C	A	H	AG	D	MAT	S
The king nodded delightedly	1		C	A	H	AG	D	MAT	S
She nodded disgustedly	1		C	A	H	AG	D	MAT	S
Fielding nodded drunkenly	1		C	A	H	AG	D	MAT	S
Illimar nodded absentmindedly	1		C	A	H	AG	D	MAT	S
The man's eyes narrowed nervously	1		C	A	H	AG	D	MAT	S
He ordered irritably	1		C	A	H	SAY	D	VER	S
I objected indignantly	1		C	A	H	SAY	D	VER	S
Jazz objected sleepily	1		C	A	H	SAY	D	VER	S
Peter Ottolini observed confidently	1		C	A	H	AG	D	MAT	S
A third girl observed interestedly	1		C	A	H	AG	D	MAT	S
He offered wistfully	1		C	A	H	SAY	D	VER	S

The mage offered absently	1		C	A	H	SAY	D	VER	S
They pushed weightlessly	1		C	A	H	AG	D	MAT	S
Tamborel pulled absently	1		C	A	H	AG	D	MAT	S
The giants puffed thoughtfully	1		C	A	H	AG	D	MAT	S
His lower lip protruded wetly	1		C	A	H	AFF	S	MAT	S
Who (the cat) protested sleepily	1		C	A	NH	AG	D	MAT	S
She prompted irritably	1		C	A	H	SAY	D	VER	S
He pleaded incredulously	1		C	A	H	SAY	D	VER	S
The something plopped wetly	1		C	A	NH	AFF	S	MAT	S
Galen plopped dejectedly	1		C	A	H	AFF	D	MAT	S
He pointed drunkenly	1		C	A	H	SAY	D	VER	S
Vic pointed indignantly	1		C	A	H	SAY	D	VER	S
He poked annoyedly	1		C	A	H	AG	D	MAT	S
Other flowers poked colorfully	1		C	IN	NH		S	MAT	S
He posed angrily	1		C	A	H	AG	D	MAT	S
Her lips pressed wetly	1		C	A		AG	D	MAT	S
Ravens pecked hungrily	1		C	A	NH	AG	D	MAT	S
Leaphorn peered absentmindedly	1		C	A	H	AG	D	MAT	S
Who (guard) peered worriedly	1		C	A	H	AG	D	MAT	S
The Neanderthal peered thoughtfully	1		C	A	H	AG	D	MAT	S

The handsome foreign eyes peered perplexedly	1		C	A	H	AG	D	MAT	S
Geilic peered interestedly	1		C	A	H	AG	D	MAT	S
Raymond peered drunkenly	1		C	A	H	AG	D	MAT	S
Mouse paused hesitantly	1		C	A	H	AG	D	MAT	S
A ... wife and mother paused disgustedly	1		C	A	H	AG	D	MAT	S
He paused thankfully	1		C	A	H	AG	D	MAT	S
He queried hopefully	1		C	A	H	SAY	D	VER	S
Coffee quivered darkly	1		C	IN	NH		S	MAT	S
He quipped triumphantly	1		C	A	H	SAY	D	VER	S
He rushed drunkenly	1		C	A	H	AG	D	MAT	S
I looked desperately	1		C	A	H	AG	D	MAT	S
American composers responded gratefully	1		C	A	H	AG	D	MAT	S
Ham responded resignedly	1		C	A	H	SAY	D	VER	S
I replied abstractedly	1		C	A	H	SAY	D	VER	S
He repeated irritably	1		C	A	H	SAY	D	VER	S
Lara repeated indignantly	1		C	A	H	SAY	D	VER	S
Kelson repeated dazedly	1		C	A	H	SAY	D	VER	S
Lily replied thankfully	1		C	A	H	SAY	D	VER	S
Concepcion rubbed thoughtfully	1		C	A	H	AG	D	MAT	S
He rubbed absently	1		C	A	H	AG	D	MAT	S

Tess rubbed distractedly	1		C	A	H	AG	D	MAT	S
He rose drunkenly	1		C	A	H	AG	D	MAT	S
He rose dazedly	1		C	A	H	AG	D	MAT	S
Momz rocked angrily	1		C	A	H	AG	D	MAT	S
Noah returned indignantly	1		C	A	H	SAY	D	VER	S
She returned furiously	1		C	A	H	SAY	D	VER	S
He retorted irritably	1		C	A	H	SAY	D	VER	S
I retreated guiltily	1		C	A	H	AG	D	MAT	S
Giyl refused indignantly	1		C	A	H	AG	D	MAT	S
The green lamp reflected greenly	1		C	IN	NH	INS	D	MAT	S
Sophie reflected bemusedly	1		C	A	H	EXP	S	MEN	S
Jack reflected angrily	1		C	A	H	EXP	S	MEN	S
They rampaged delightedly	1		C	A	H	AG	D	MAT	S
He railed angrily	1		C	A	H	AG	D	MAT	S
Gas ran wetly	1		C	IN	NH	INS	D	MAT	S
Carli reached drowsily	1		C	A	H	AG	D	MAT	S
Panamanian people received gratefully	1		C	A	H	REC	D	MAT	S
Old Ones stood thoughtfully	1		C	A	H	AG	STANCE - D	MAT	S
He stood puzzledly	1		C	A	H	AG	STANCE - D	MAT	S
Yura stood absent-mindedly	1		C	A	H	AG	STANCE - D	MAT	S
Hammond stood angrily	1		C	A	H	AG	STANCE - D	MAT	S

A shell of wall stood brokenly	1		C	IN	NH	AG	STANCE - D	MAT	S
Their horses stood contentedly	1		C	A	H	AG	STANCE - D	MAT	S
The others sat absently	1		C	A	H	AG	STANCE - S	MAT	S
The old men sat drowsily	1		C	A	H	AG	STANCE - S	MAT	S
An armed guard sat sleepily	1		C	A	H	AG	STANCE - S	MAT	S
Peter Van Gaas stared resignedly	1		C	A	H	AG	D	MAT	S
The artist stared perplexedly	1		C	A	H	AG	D	MAT	S
People stared wetly	1		C	A	H	AG	D	MAT	S
The smuggler stared attentively	1		C	A	H	AG	D	MAT	S
I stared bewilderedly	1		C	A	H	AG	D	MAT	S
Captain Henders stared distractedly	1		C	A	H	AG	D	MAT	S
The muscular baseball clone smiled resignedly	1		C	A	H	AG	D	MAT	S
He sighed guiltily	1		C	A	H	AG	D	MAT	S
She sighed worriedly	1		C	A	H	AG	D	MAT	S
He said dizzily	1		C	A	H	SAY	D	VER	S
Her mom said concernedly	1		C	A	H	SAY	D	VER	S
Dr. Taleghani said ashamedly	1		C	A	H	SAY	D	VER	S
He said bemusedly	1		C	A	H	SAY	D	VER	S
Jeff Banister said exhaustedly	1		C	A	H	SAY	D	VER	S
John said hungrily	1		C	A	H	SAY	D	VER	S
He said imperturbedly	1		C	A	H	SAY	D	VER	S

Everyone said thankfully	1		C	A	H	SAY	D	VER	S
I said perplexedly	1		C	A	H	SAY	D	VER	S
The nation turned gratefully	1		C	A	H	AG	D	REL	S
He thought distressedly	1		C	A	H	EXP	S	MEN	S
He thought amusedly	1		C	A	H	EXP	S	MEN	S
She thought bemusedly	1		C	A	H	EXP	S	MEN	S
He thought confusedly	1		C	A	H	EXP	S	MEN	S
He thought resignedly	1		C	A	H	EXP	S	MEN	S
He thought moodily/angrily	1		C	A	H	EXP	S	MEN	S
She thought surprisedly	1		C	A	H	EXP	S	MEN	S
Senators McCain and Feingold testified angrily	1		C	A	H	SAY	D	VER	S
He talked angrily	1		C	A	H	SAY	D	VER	S
A chunk of flesh tumbled wetly	1		C	IN	H	INS	D	MAT	S
He tucked happily	1		C	A	H	AG	D	MAT	S
We tramped wetly	1		C	A	H	AG	D	MAT	S
Who toyed absent-mindedly	1		C	A	H	AG	D	MAT	S
Snow flurries touched coldly	1		C	IN	NH	FOR	D	MAT	S
Other girls tossed irritably	1		C	A	H	AG	D	MAT	S
Mist took gratefully	1		C	A	H	AG	D	MAT	S
He understood sadly	1		C	A	H	EXP	S	MEN	S
His eyes wandered interestedly	1		C	A	H	AG	D	MAT	S

The Athenian infantry waited impotently	1		C	A	H	AG	D	MAT	S
She waited happily	1		C	A	H	AG	D	MAT	S
She waited resignedly	1		C	A	H	AG	D	MAT	S
He waited sleepily and peevishly	1		C	A	H	AG	D	MAT	S
They walked invisibly	1		C	A	H	AG	D	MAT	S
She went contentedly	1		C	A	H	AG	D	MAT	S
Skjaldwulf went gratefully	1		C	A	H	AG	D	MAT	S
Tamborel watched guiltily	1		C	A	H	AG	D	MAT	S
The other captives watched hungrily	1		C	A	H	AG	D	MAT	S
Elayne watched interestedly	1		C	A	H	AG	D	MAT	S
She watched blindly	1		C	A	H	AG	D	MAT	S
Her parents watched worriedly	1		C	A	H	AG	D	MAT	S
I wondered distractedly	1		C	A	H	AG	D	MEN	S
She wondered guiltily	1		C	A	H	EXP	S	MEN	S
He wondered worriedly	1		C	A	H	EXP	S	MEN	S
Filip whispered distressedly	1		C	A	H	SAY	D	VER	S
Dr. Bentley whined drunkenly	1		C	A	H	AG	D	MAT	S
Fiona wheeled gratefully	1		C	A	H	AG	D	MAT	S
She wept happily	1		C	A	H	AG	S	MAT	S
A woman wrote delightedly	1		C	A	H	AG	D	MAT	S

The bladder wriggled wetly	1		C	A		AFF	S	MAT	S
She yelled delightedly	1		C	A	H	SAY	D	VER	S
Coot yelled indignantly	1		C	A	H	SAY	D	VER	S
The girl yodeled joyfully	1		C	A	H	SAY	D	VER	S

Appendix 2. Semantic analysis: OE and ME subject-related *-ly* adverbs

			Old	English	data		
			Subject	Verb			Adjective
Example	Subject R	Object R	Semantic Role	Type	Process	Position	Stative/dynamic
The candle (sun) shines clearly	1		AFF	STATIVE	MAT	POST	STATIVE
This light clearly shines	1		AFF	STATIVE	MAT	PRE	STATIVE
The sun hotly shines	1		AFF	STATIVE	MAT	PRE	STATIVE
Hail hotly burning	1		AFF	STATIVE	MAT	PRE	STATIVE
Iron pieces glowing hotly	1			STATIVE	MAT	POST	STATIVE
Bath was welling hotly	1		AFF	STATIVE	MAT	POST	STATIVE
Judges & elders furiously breathe	1		AG	DYNAMIC	MAT	PRE	STATIVE
I feel furiously in spirit	1			COPU	REL	POST	STATIVE
Thou humiliated me shamefully		1	AFF	DYNAMIC	MAT	POST	STATIVE
They are shamefully driven	1		AFF	DYNAMIC	MAT	MEDIAL	STATIVE
Faious shamefully scaped	1		AG	DYNAMIC	MAT	PRE	STATIVE
They hear apathetically	1		EXP	STATIVE	MEN	POST	STATIVE
The bishop sadly suffered	1		AFF	STATIVE	MAT	PRE	STATIVE
The punishment went (become?) painfully	1		CARR	COPU	REL	POST	STATIVE
Men received his words angrily	1			STATIVE	MAT	POST	STATIVE
Dogs stood furiously	1		AG	STANCE	MAT	POST	STATIVE
The war-bands shine clearly	1		AFF	STATIVE	MAT	POST	STATIVE
Head&mind rejoice cleanly (pure)	1		AFF	STATIVE	MAT	POST	STATIVE

Thy hands shape/made me kindly	1		AG	DYNAMIC	MAT	POST	STATIVE
I stretched devotedly	1		AG	DYNAMIC	MAT	POST	STATIVE
Mint blows whitely	1		AFF	STATIVE	MAT	POST	STATIVE
The gathering will shine whitely	1		AFF	STATIVE	MAT	POST	STATIVE
Brambles, thorns&nettles stood thickly	1			STANCE	MAT	POST	STATIVE
The brothers were sadly sitting	1		AG	STANCE	MAT	MEDIAL	STATIVE
He enviously lives	1		AFF	STANCE	MAT	PRE	STATIVE
He boldly hasten	1		AG	DYNAMIC	MAT	PRE	STATIVE
The Greek unanimously observed	1		AG	DYNAMIC	MAT	PRE	STATIVE
He mercifully spares us	1		AG	DYNAMIC	MAT	PRE	STATIVE
I did not empiously fall	1		AFF	STATIVE	MAT	MEDIAL	STATIVE
Their mouth abominably is	1		CARR	COPU	REL	PRE	STATIVE
the light of daybreak brightly shone	1			STATIVE	MAT	PRE	STATIVE
They (the souls) shine brightly	1		AFF	STATIVE	MAT	POST	STATIVE
That fire cannot lividly burn	1			STATIVE	MAT	MEDIAL	STATIVE
The mother joyfully carried it (the baby)	1		AG	DYNAMIC	MAT	PRE	STATIVE
He asked him joyfully	1		AG	DYNAMIC	VERB	POST	STATIVE
I die happily	1		AFF	STATIVE	MAT	POST	STATIVE
They shamefully fled	1		AG	DYNAMIC	MAT	PRE	STATIVE
He was gravely in his prayers (serious)	1		CARR	COPU	REL	POST	STATIVE
He was shaped in an earthly form	1		AFF	DYNAMIC	MAT	POST	STATIVE
I stand firm	1		AG	STANCE	MAT	POST	STATIVE
Then stood the house firmly	1			STANCE	MAT	POST	STATIVE

He lies fast (sick) and dies	1		AFF	STATIVE	MAT	POST	STATIVE
his statement stood fast	1			STANCE	MAT	POST	STATIVE
His devotion remained permanently	1		CARR	COPU	REL	POST	STATIVE
The sun shines brightly	1		AFF	STATIVE	MAT	POST	STATIVE
thou have established the earth...firmly		1	AFF	DYNAMIC	MAT	POST	STATIVE
He guiltily raises his hand	1		AG	DYNAMIC	MAT	PRE	STATIVE
They prepared...angrily	1		AG	DYNAMIC	MAT	POST	STATIVE
The Ruler sank you angrily	1		AG	DYNAMIC	MAT	POST	STATIVE
The avarice darkly sleeps	1			STATIVE	MAT	PRE	STATIVE
It will be to him wretchedly	1		CARR	COPU	REL	POST	STATIVE
			Middle	English	data		
			Subject	Verb			Adjective
Examples	Subject	Object	Semantic role	Type	Process	Position	Stative/dynamic
Mary appeared angrily	1		CARR	COPU	REL	POST	STATIVE
They depart happily	1		AG	DYNAMIC	MAT	POST	STATIVE
I see thee immesed happily		1	AFF	STATIVE	MAT	POST	STATIVE
Bride that shines brightly	1		AFF	STATIVE	MAT	POST	STATIVE
The sun shines brightly and hotly	1		AFF	STATIVE	MAT	POST	STATIVE
He would show his face so brightly		1	AG	DYNAMIC	MAT	POST	STATIVE
A gold ring shone brightly	1			STATIVE	MAT	POST	STATIVE
The captive...died sinfully	1		AFF	STATIVE	MAT	POST	STATIVE
We go pitiably	1		AG	DYNAMIC	MAT	POST	STATIVE
He is lying very fast	1		AFF	STANCE	MAR	POST	STATIVE

He (Moses) would fearfully do	1		AG	DYNAMIC	MAT	MEDIAL	STATIVE
They lifted their eyes joyfully	1		AG	DYNAMIC	MAT	POST	STATIVE
The eagle sits heavily	1		AG	STANCE	MAT	POST	STATIVE
It were hanging heavily	1		AFF	STATIVE	MAT	POST	STATIVE
My heart be sadly set	1		AFF	STATIVE	MAT	MEDIAL	STATIVE
He found his fellows sadly	1	1	AG	DYNAMIC	MAT	POST	STATIVE
She took up the gloves all sadly	1		AG	DYNAMIC	MAT	POST	STATIVE
The mirth hang heavily(oppressively)	1			STATIVE	MAT	POST	STATIVE
The sun shone hotly and brightly	1		AFF	STATIVE	MAT	POST	STATIVE
Gladly he shines	1		AFF	STATIVE	MAT	PRE	STATIVE
She shines brightly	1		AFF	STATIVE	MAT	POST	STATIVE
The walls shone lightly	1		AFF	STATIVE	MAT	POST	STATIVE
The city was situated/stood handsomely	1		POSI	STANCE	MAT	POST	STATIVE
Phoebus may shine brightly	1		AFF	STATIVE	MAT	POST	STATIVE
Brightly it (the moon) shines	1		AFF?	STATIVE	MAT	PRE	STATIVE
She trembled palely and piteously	1		AFF	STATIVE	MAT	POST	STATIVE
They stand steadfastly (firm)	1		AG	STANCE	MAT	POST	STATIVE
Sadly he sat/was sitting	1		AG	STANCE	MAT	PRE	STATIVE
The king was lying miserably	1			DYNAMIC	MAT	POST	STATIVE
Wretchedly ... I sat	1		AG	STANCE	MAT	PRE	STATIVE
She thanked him thankfully	1		AG	DYNAMIC	VERB	POST	STATIVE
Thickly it was set	1		AFF	DYNAMIC	MAT	PRE	STATIVE
Thou shalt see me thickly and darkly		1	CARR	STATIVE	MEN?	POST	STATIVE

They were sorrowfully shedding	1		AG	DYNAMIC	MAT	MEDIAL	STATIVE
Venus shines whitely	1		AFF	STATIVE	MAT	POST	STATIVE
Pleasingly...he placed her	1		AG	DYNAMIC	MAT	PRE	STATIVE
The king swore angrily	1		AG	DYNAMIC	MAT	POST	STATIVE
These pagans angrily went	1		AG	DYNAMIC	MAT	PRE	STATIVE

Appendix 3. Semantic analysis non-inherent adjectives

						Non-Inherent	Adjectives			
	Adjective			Meaning				Nouns		
Example	Inherent	Non-inherent	Process	Degree	Time	Space	Modality	(un)count	(in)animate	Concrete/abstract
Spectacular success		1	1	1				NONCOUNT	INANIM	ABSTRACT
Spectacular failure		1	1	1				NONCOUNT	INANIM	ABSTRACT
Spectacular rise		1		1				NONCOUNT	INANIM	ABSTRACT
Spectacular fall		1		1				NONCOUNT	INANIM	ABSTRACT
Spectacular attack		1		1				COUNT	INANIM	CONCRETE
Spectacular collapse		1		1				NONCOUNT	INANIM	ABSTRACT
Spectacular increase		1		1				NONCOUNT	INANIM	ABSTRACT
Spectacular death		1	1					COUNT	INANIM	ABSTRACT
Spectacular blossom		1	1					NONCOUNT	INANIM	CONCRETE
Spectacular massacre		1	1					COUNT	INANIM	CONCRETE
Spectacular victory		1	1	1				NONCOUNT	INANIM	ABSTRACT
Spectacular adulteration		1		1				COUNT	INANIM	ABSTRACT

Rural policeman		1				1		COUNT	ANIMATE	CONCRETE
Rural workers		1				1		COUNT	ANIMATE	CONCRETE
Rural poverty		1				1		NONCOUNT	INANIM	ABSTRACT
Rural transport		1				1		NONCOUNT	INANIM	CONCRETE
Rural water		1				1		NONCOUNT	INANIM	CONCRETE
Rural policeman		1				1		NONCOUNT	ANIMATE	ABSTRACT
Rural vote		1				1		NONCOUNT	INANIM	CONCRETE
Rural productivity		1				1		NONCOUNT	INANIM	CONCRETE
Rural teachers		1				1		COUNT	ANIMATE	CONCRETE
Rural voters		1				1		COUNT	ANIMATE	CONCRETE
Perfect happiness		1					1	NONCOUNT	INANIM	ABSTRACT
Perfect peace		1					1	NONCOUNT	INANIM	ABSTRACT
Perfect stranger		1		1				COUNT	ANIMATE	CONCRETE
Perfect comfort		1		1				NONCOUNT	INANIM	ABSTRACT
Perfect innocence		1					1	NONCOUNT	INANIM	ABSTRACT
Perfect idiot		1		1				COUNT	ANIMATE	CONCRETE
Perfect indifference		1		1				NONCOUNT	INANIM	ABSTRACT
Perfect satisfaction		1		1				NONCOUNT	INANIM	ABSTRACT
Perfect transparency		1		1				NONCOUNT	INANIM	ABSTRACT
Old friends		1			1			COUNT	ANIMATE	CONCRETE

Old jobs		1			1			COUNT	INANIM	ABSTRACT
Old enemy		1			1			COUNT	ANIMATE	CONCRETE
Old mate		1			1			COUNT	ANIMATE	CONCRETE
Old boyfriend		1			1			COUNT	ANIMATE	CONCRETE
Original position		1			1			COUNT	INANIM	CONCRETE
Original idea		1			1			COUNT	INANIM	ABSTRACT
Original plan		1			1			COUNT	INANIM	ABSTRACT
Original interpretation		1			1			NONCOUNT	INANIM	ABSTRACT
Original teacher		1			1			COUNT	ANIMATE	CONCRETE
Original article		1			1			COUNT	INANIM	CONCRETE
Original curriculum		1			1			COUNT	INANIM	ABSTRACT
Complete control		1		1				NONCOUNT	INANIM	ABSTRACT
Complete strangers		1		1				COUNT	ANIMATE	CONCRETE
Complete beginner		1		1				NONCOUNT	ANIMATE	CONCRETE
Complete faith		1		1				NONCOUNT	INANIM	ABSTRACT
Complete peace		1		1				NONCOUNT	INANIM	ABSTRACT
Complete symmetry		1		1				NONCOUNT	INANIM	ABSTRACT
Potential conflicts		1		1				NONCOUNT	INANIM	ABSTRACT
Potential confusion		1		1				NONCOUNT	INANIM	ABSTRACT

Potential economies		1		1				COUNT	INANIM	ABSTRACT
Potential noise		1		1				NONCOUNT	INANIM	ABSTRACT
Provincial governor		1				1		COUNT	ANIMATE	CONCRETE
Provincial leader		1				1		COUNT	ANIMATE	CONCRETE
Provincial market		1				1		COUNT	INANIM	CONCRETE
Provincial police		1				1		NONCOUNT	ANIMATE	ABSTRACT
Provincial officers		1				1		COUNT	ANIMATE	CONCRETE
Firm friends		1		1				COUNT	ANIMATE	CONCRETE
Firm believe		1		1				NONCOUNT	INANIM	ABSTRACT
Firm control		1		1				NONCOUNT	INANIM	ABSTRACT
Firm supporter		1		1				COUNT	ANIMATE	CONCRETE
Atrocious rise		1		1				NONCOUNT	INANIM	ABSTRACT
Atrocious pain		1		1				NONCOUNT	INANIM	ABSTRACT
Atrocious amount		1		1				COUNT	INANIM	ABSTRACT
Tue believer		1					1	COUNT	ANIMATE	CONCRETE
True friend		1					1	COUNT	ANIMATE	CONCRETE
True emergency		1					1	COUNT	INANIM	ABSTRACT
True artists		1					1	COUNT	ANIMATE	CONCRETE
True experts		1					1	COUNT	ANIMATE	CONCRETE
True scholar		1					1	COUNT	ANIMATE	CONCRETE

Plain misunderstanding		1					1	COUNT	INANIM	ABSTRACT
Plain nonsense		1					1	NONCOUNT	INANIM	ABSTRACT
Plain rudeness		1					1	NONCOUNT	INANIM	ABSTRACT
Outright lies		1					1	COUNT	INANIM	ABSTRACT
Outright rudeness		1					1	NONCOUNT	INANIM	ABSTRACT
Outright revolution		1					1	COUNT	INANIM	ABSTRACT
Outright brutality		1					1	NONCOUNT	INANIM	ABSTRACT
Outright violence		1					1	NONCOUNT	INANIM	ABSTRACT
Outright slavery		1					1	NONCOUNT	INANIM	ABSTRACT
Outright opponents		1					1	COUNT	ANIMATE	CONCRETE
Total loss		1		1				NONCOUNT	INANIM	ABSTRACT
Total disaster		1		1				NONCOUNT	INANIM	ABSTRACT
Total strangers		1		1				COUNT	ANIMATE	CONCRETE
Total confusion		1		1				NONCOUNT	INANIM	ABSTRACT
Total power		1		1				NONCOUNT	INANIM	ABSTRACT
Total ignorance		1		1				NONCOUNT	INANIM	ABSTRACT
Close friend		1		1				COUNT	ANIMATE	CONCRETE
Close collaborator		1		1				COUNT	ANIMATE	CONCRETE
Close rival		1		1				COUNT	ANIMATE	CONCRETE
Close alliances		1		1				COUNT	INANIM	ABSTRACT

Absolute truth		1		1				NONCOUNT	INANIM	ABSTRACT
Absolute non-sense		1		1				NONCOUNT	INANIM	ABSTRACT
Absolute priority		1		1				NONCOUNT	INANIM	ABSTRACT
Absolute chaos		1		1				NONCOUNT	INANIM	ABSTRACT
Absolute joy		1		1				NONCOUNT	INANIM	ABSTRACT
Absolute idiot		1		1				COUNT	ANIMATE	CONCRETE
Entreme heat		1		1				NONCOUNT	INANIM	ABSTRACT
Extreme pain		1		1				NONCOUNT	INANIM	ABSTRACT
Entreme poverty		1		1				NONCOUNT	INANIM	ABSTRACT
Extreme concern		1		1				COUNT	INANIM	ABSTRACT
Extreme importance		1		1				NONCOUNT	INANIM	ABSTRACT
Definite need		1					1	COUNT	INANIM	ABSTRACT
Definite loss		1					1	NONCOUNT	INANIM	ABSTRACT
Definite danger		1					1	COUNT	INANIM	ABSTRACT
Definite lack		1					1	NONCOUNT	INANIM	ABSTRACT
Utter disaster		1		1				NONCOUNT	INANIM	ABSTRACT
Utter nonsense		1		1				NONCOUNT	INANIM	ABSTRACT
Utter amazement		1		1				NONCOUNT	INANIM	ABSTRACT
Utter shock		1		1				NONCOUNT	INANIM	ABSTRACT
Utter fool		1		1				COUNT	ANIMATE	CONCRETE
Great concern		1		1				COUNT	INANIM	ABSTRACT

Great benefit		1		1				COUNT	INANIM	ABSTRACT
Great work		1		1				NONCOUNT	INANIM	ABSTRACT
Great friends		1		1				COUNT	ANIMATE	CONCRETE
Great help		1		1				NONCOUNT	INANIM	ABSTRACT
Great sacrifice		1		1				NONCOUNT	INANIM	ABSTRACT
Strong support		1		1				NONCOUNT	INANIM	ABSTRACT
Strong will		1		1				NONCOUNT	INANIM	ABSTRACT
Strong suspicion		1		1				NONCOUNT	INANIM	ABSTRACT
Strong impact		1		1				COUNT	INANIM	ABSTRACT
Strong storm		1		1				COUNT	INANIM	CONCRETE
Chinese island		1				1		COUNT	INANIM	CONCRETE
Chinese jadeworking		1				1		NONCOUNT	INANIM	CONCRETE
Chinese isle		1				1		COUNT	INANIM	CONCRETE
Chinese inhabitant		1				1		COUNT	ANIMATE	CONCRETE
Chinese lawyers		1				1		COUNT	ANIMATE	CONCRETE
Vietnamese village		1				1		COUNT	INANIM	CONCRETE
Vietnamese newspaper		1				1		COUNT	INANIM	CONCRETE
Sinhalese journalist		1				1		COUNT	ANIMATE	CONCRETE
Sudanese desert		1				1		COUNT	INANIM	CONCRETE
Senegalese artist		1				1		COUNT	ANIMATE	CONCRETE

Taiwanese actress		1				1		COUNT	ANIMATE	CONCRETE
Portuguese citizens		1				1		COUNT	ANIMATE	CONCRETE
Portuguese family		1				1		COUNT	ANIMATE	CONCRETE
Portuguese priest		1				1		COUNT	ANIMATE	CONCRETE
Lebanese coast		1				1		COUNT	INANIM	CONCRETE
Nepalese workers		1				1		COUNT	ANIMATE	CONCRETE
Subcutaneous emphysema		1				1		COUNT	INANIM	CONCRETE
Previous practice		1			1			COUNT	INANIM	ABSTRACT
Previous pages		1			1			COUNT	INANIM	CONCRETE
Local leaders		1				1		COUNT	ANIMATE	CONCRETE
Local language		1				1		COUNT	INANIM	ABSTRACT
Real friend		1		1				COUNT	ANIMATE	CONCRETE
Potential danger		1					1	COUNT	INANIM	ABSTRACT
Real experience		1		1				NONCOUNT	INANIM	ABSTRACT
Indian institute		1				1		COUNT	INANIM	CONCRETE
Serbian police		1				1		NONCOUNT	INANIM	ABSTRACT
Sub-Saharan countries		1				1		COUNT	INANIM	CONCRETE
Hungarian Jews		1				1		COUNT	ANIMATE	CONCRETE
Yemenite Israeli		1				1		COUNT	ANIMATE	CONCRETE

Off-site meeting		1				1		COUNT	INANIM	ABSTRACT
British intellectuals		1				1		COUNT	ANIMATE	CONCRETE
British jail		1				1		COUNT	INANIM	CONCRETE
British hospital		1				1		COUNT	INANIM	CONCRETE
Irish rebels		1				1		COUNT	ANIMATE	CONCRETE
Irish musicians		1				1		COUNT	ANIMATE	CONCRETE
English park	1							COUNT	INANIM	CONCRETE
Spectacular sunsets	1							COUNT	INANIM	ABSTRACT
Spectacular fireworks	1							COUNT	INANIM	CONCRETE
Spectacular cathedral	1							COUNT	INANIM	CONCRETE
Rural lifestyle	1							NONCOUNT	INANIM	ABSTRACT
Rural China	1							NONCOUNT	INANIM	CONCRETE
Rural village	1							COUNT	INANIM	CONCRETE
Perfect place	1							COUNT	INANIM	CONCRETE
Perfect plan	1							COUNT	INANIM	ABSTRACT
Perfect person	1							COUNT	ANIMATE	CONCRETE
Old documents	1							COUNT	INANIM	CONCRETE
Old structure	1							COUNT	INANIM	CONCRETE
Old music	1							NONCOUNT	INANIM	ABSTRACT
Original idea	1							NONCOUNT	INANIM	ABSTRACT

Original article	1							COUNT	INANIM	CONCRETE
Original interpretation	1							COUNT	INANIM	CONCRETE
Complete set	1							COUNT	INANIM	CONCRETE
Complete answer	1							COUNT	INANIM	ABSTRACT
Complete discourse	1							COUNT	INANIM	ABSTRACT
Complete lesson plan	1							COUNT	INANIM	CONCRETE
Complete experience	1							COUNT	INANIM	CONCRETE
Potential situation	1							COUNT	INANIM	ABSTRACT
Potential symptoms	1							COUNT	INANIM	ABSTRACT
Provincial life	1							NONCOUNT	INANIM	ABSTRACT
Provincial accent	1							COUNT	INANIM	ABSTRACT
Provincial person	1							COUNT	ANIMATE	CONCRETE
Firm walls	1							COUNT	INANIM	CONCRETE
Firm texture	1							COUNT	INANIM	CONCRETE
Atrocious car	1							COUNT	INANIM	CONCRETE
Atrocious woman	1							COUNT	ANIMATE	CONCRETE
Total budget	1							NONCOUNT	INANIM	ABSTRACT
Total duration	1							NONCOUNT	INANIM	ABSTRACT
Total height	1							NONCOUNT	INANIM	CONCRETE

Close distance	1							COUNT	INANIM	CONCRETE
Absolute number	1							COUNT	INANIM	ABSTRACT
Absolute temperature	1							NONCOUNT	INANIM	ABSTRACT
Extreme weather	1							NONCOUNT	INANIM	ABSTRACT
Utter nakedness	1							NONCOUNT	INANIM	CONCRETE
Utter transparency	1							NONCOUNT	INANIM	ABSTRACT
Great men	1							COUNT	ANIMATE	CONCRETE
Great work	1							NONCOUNT	INANIM	ABSTRACT
Great dragon	1							COUNT	ANIMATE	CONCRETE
Strong man	1							COUNT	ANIMATE	CONCRETE
Strong bones	1							COUNT	INANIM	CONCRETE
Strong roots	1							COUNT	INANIM	CONCRETE
Chinese laundries	1							COUNT	INANIM	CONCRETE
Chinese jacket	1							COUNT	INANIM	CONCRETE
Chinese kite	1							COUNT	INANIM	CONCRETE
Taiwanese culture	1							NONCOUNT	INANIM	ABSTRACT
Portuguese clothing	1							NONCOUNT	INANIM	CONCRETE
Real friend	1							COUNT	ANIMATE	CONCRETE
Local media	1							NONCOUNT	INANIM	ABSTRACT
Real experience	1							COUNT	INANIM	CONCRETE

Indian name	1							COUNT	INANIM	ABSTRACT
Tibetan monks	1							COUNT	ANIMATE	CONCRETE
English judges	1							COUNT	ANIMATE	CONCRETE

REFERENCES

- Allen, Margaret. 1978. *Morphological investigations*. Mansfield: University of Connecticut. (Doctoral dissertation.)
- Allerton, David J. 1979. *Essentials of grammatical theory. A consensus view of syntax and morphology*. London: Routledge & Kegan Paul.
- Allerton, David J. 1982. *Valency and the English verb*. New York: Academic Press.
- Anderson, Stephen R. 1992. *A morphous-morphology*. Cambridge: Cambridge University Press.
- Aronoff, Mark & Fudeman, Kristen Anne. 2011. *What is morphology*, 2nd edn. Chichester: Wiley-Blackwell.
- Baayen, Harald R. & Lieber, Rochelle. 1991. Productivity in English derivation: A corpus-based study. *Linguistics* 29(5). 801-844.
- Baayen, Harald R. & Renouf, Antoinette. 1996. Chronicling the Times: Productive lexical innovations in an English newspaper. *Language*. 69-96.
- Bacon, Roger. 1940. Sumule Dialectices. In Steel, Robert (ed.), *Opera hactenus inedita Rogeri Baconi, Fasc XV*, 191-359. Oxford: E. Typographeo Clarendoniano.
- Baker, Mark C. 2003. *Lexical categories: Verbs, nouns, and adjectives*. Cambridge: Cambridge University Press.
- Barber, Charles. 1976. *Early Modern English*. London: André Deutsch.

- Barber, Charles. 1997. *Early Modern English*. Edinburgh: Edinburgh University Press.
- Barber, Charles, Beal, Joan C. & Shaw, Philip A. 2009. *The English Language. A historical introduction*. Cambridge: Cambridge University Press.
- Bauer, Laurie & Huddleston, Rodney. 2002. Lexical Word-formation. In Huddleston, Rodney & Pullum, Geoffrey K. (eds.), *The Cambridge grammar of English Language, 1621-1721*. Cambridge: Cambridge University Press.
- Bauer, Laurie & Lieber, Rochelle & Plag, Ingo. 2013. *The Oxford reference guide to English morphology*. Oxford: Oxford University Press.
- Bauer, Laurie. 1983. *English word-formation*. Cambridge: Cambridge University Press.
- Bauer, Laurie. 2004. Adjectives, compounds and words. *Nordic Journal of English Studies* 3. 7-22.
- Bauer, Laurie. 1998. When is a sequence of two nouns a compound in English?. *English Language and Linguistics* 2. 65-86.
- Baugh, Albert C. & Cable, Thomas. 2002. *A history of the English language*. London: Routledge.
- Bazell, Charles Ernest. 1953. *Linguistic form*. Istanbul: Istanbul Universitesi.
- Beard, Robert. 1991. Decompositional composition: The semantics of scope ambiguities and 'bracketing paradoxes'. *Natural Language & Linguistic Theory* 9(2). 195-229.
- Biber, Douglas. 1993. Representativeness in corpus design. *Literary and linguistic computing* 8(4). 243-257.
- Biber, Douglas & Johansson, Stig & Leech, Geoffrey & Conrad, Susan & Finegan, Edward. 1999. *Long Grammar of Spoken and Written English*. Harlow: Longman.
- Bickel, Balthasar & Nichols, Johanna. 2007. Inflectional morphology. In Shopen, Timothy (ed.), *Language Typology and Syntactic Description*, 169-240. Cambridge: Cambridge University Press.
- Bosworth, Joseph & Toller, Thomas Northcote. 1882. *An Anglo-Saxon dictionary*. Oxford: Clarendon Press.

- Bloomfield, Leonard. 1933. *Language history: from Language (1933 ed.)*. New York: Holt, Rinehart & Winston.
- Bloomfield, Leonard. 1983. *An introduction to the study of language*. Amsterdam/Philadelphia: John Benjamins.
- BoE. 1991. *Bank of English*. COBUILD (Collins Birmingham University International Language Database) project. https://www.lancaster.ac.uk/fass/projects/corpus/cbls/corpora.asp#_To_c92298877
- Bolinger, Dwight. 1967. Adjectives in English: attribution and predication. *Lingua* 18. 1-34.
- Bolinger, Dwight 1972. *Degree words*. The Hague: De Gruyter Mouton.
- Bouchard, Denis. 2002. *Adjectives, number and interfaces: Why languages vary*. Amsterdam/London: Elsevier.
- Bursill-Hall, Geoffrey. 1995. Linguistics in the later Middle Ages. In Koerner, E. F. K. & Asher, R. E. (eds), *Concise History of the Language Sciences*, 130-137. Oxford: Elsevier.
- Brems, Lieselotte. 2010. Size noun constructions as collocationally constrained constructions: Lexical and grammaticalized uses. *English Language and Linguistics* 14. 83-109.
- Breva-Claramonte, M. 1983. *Sanctius' Theory of Language. A Contribution to the History of Renaissance Linguistics*. Amsterdam/Philadelphia: John Benjamins.
- Broccias, Cristiano. 2011. Motivating the flexibility of oriented -ly adverbs. In Panther, Klaus-Uwe & Radden, Günter (eds.), *Motivation in grammar and the lexicon*, 71-87. Amsterdam: John Benjamins.
- Bybee, Joan. 1985. *Morphology*. Amsterdam/Philadelphia: John Benjamins.
- Campbell, Alistair. 1987. *Old English grammar*. Oxford: The Clarendon Press.
- Campbell, Lyle. 2002. The history of linguistics. In Aronoff, Mark & Rees-Miller, Janie (eds.), *The handbook of linguistics*, 81-104. Malden, MA: Blackwell.
- Carlson, Gregory Norman. 1977. *Reference to kinds in English*. Amherst: University of Massachusetts. (Doctoral dissertation.)

- Carstairs-McCarthy, Andrew. 2002. *An introduction to English morphology: Words and their structure*. Edinburgh: Edinburgh University Press.
- Chomsky, Noam. 1970. Remarks on nominalization. In Jacobs, Roderick A. & Rosenbaum, Peter S. (eds.), *Readings in English transformational grammar*, 184-221. Waltham, MA: Ginn & Co.
- Chomsky, Noam. 1957. Logical structure in language. *Journal of the American Society for Information Science* 8(4). 284-291.
- Colombat, Bernard. 1988a. Les «parties du discours» (partes orationis) et la reconstruction d'une syntaxe latine au XVI^e siècle. *Langages*, 92. 51-64.
- Corbett, Greville G. 2012. *Features*. Cambridge: Cambridge University Press.
- Corpus of Middle English Verse and Prose*. 2000-2018. Online edition in Middle English Compendium. Ed. Frances McSparram, et al. Ann Arbor: University of Michigan Library. (<https://quod.lib.umich.edu/c/cme/>) (Accessed 2023/05/05).
- Cowie, Claire. 2017. Morphology. In Bergs, Alexander & Brinton, Laurel J. (eds.), *The History of English. Volume 4, Early Modern English*, 47-67. Berlin, Boston: De Gruyter Mouton.
- Crasborn, Onno. 2008. Interpreting sign language corpora. (Paper presented at the Research Seminar on Translation studies & Intercultural Communication, Heriot-Watt University, Edinburgh UK, February 2008.)
- Cruse, Alan & Togia, Pagona. 1996. Towards a cognitive model of antonymy. *Journal of lexicology* 1. 113-141.
- Davies, Mark. 2004. *British National Corpus* (from Oxford University Press). Available online at <http://corpus.byu.edu/bnc/> (Accessed 2024/01/16).
- Davies, Mark. 2008. *The Corpus of Contemporary American English (COCA)*. Available online at <http://corpus.byu.edu/coca/> (Accessed 2024/01/16).
- Davies, Mark. 2009b. The 385+ million word corpus of contemporary American English (1990–2008+): design, architecture, and linguistic insights. *International Journal of Corpus Linguistics* 14. 159-90.

- Davies, Mark. 2011. The Corpus of Contemporary American English as the first reliable monitor corpus of English. *Literary and Linguistic Computing* 25. 447-65.
- Díaz-Negrillo, Ana. 2014. Subject-relatedness in -ly premodifying adverbs. *English Studies* 95(4). 459-474.
- Dik, Simon C. 1989. *The theory of functional grammar. Part I: the structure of the clause*. Dordrecht, Netherlands: Foris.
- Dixon, Robert M. 1977. Where have all the adjectives gone?. *Studies in Language* 1. 1-80.
- Donner, Morton. 1991. Adverb form in Middle English. *English Studies* 72(1). 1-11.
- Dowty, David Roach. 1972. *Studies in the logic of verb aspect and time reference in English*. Texas: University of Austin. (Doctoral dissertation.)
- Dowty, David Roach. 1975. The stative in the progressive and other essence/accident contrasts. *Linguistic Inquiry* 6(4). 579-588.
- Dressler, Wolfgang Ullrich. 1989. Differences between inflection and derivation. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 42. 3-10.
- Emonds, Joseph E. 1976. *A transformational approach to English syntax*. New York: Academic Press.
- Ernst, Thomas B. 2001. *The syntax of adjuncts*. Cambridge: Cambridge University Press
- Fanselow, Gisbert. 1988. Word syntax and semantic principles. In Booij, Geert & van Marle, Jaap (eds.), *Yearbook of morphology*, 95-122. Dordrecht: Foris.
- Farrell, Patrick. 2001. Functional shift as category underspecification. *English Language and Linguistics* 5(1). 109-130.
- Fernández, Francisco. 1982. *Historia de la lengua inglesa*. Madrid: Gredos.
- Ferris, Connor. 1993. *The meaning of syntax: A study of adjectives in English*. London & New York: Longman.

- Feuillet, Jack. 1991. Adjectifs et adverbes, essai de classification. In Guimier, Claude & Larcher, Pierre (éds.), *Travaux linguistiques du Cerlico* 3, 35-58.
- Fischer, Olga. 2000. The position of the adjective in Old English. In Bermúdez-Otero, Ricardo & Denison, David & Hogg, Richard M. & McCully, C. B. (eds.), *Generative theory and corpus studies: A dialogue from 10 ICEHL*, 153-81. Berlin, Boston: De Gruyter Mouton
- Fischer, Olga. 2001. The position of the adjective in (Old) English from an iconic perspective. In Fischer, Olga & Nänny, Max (eds.), *The motivated sign. Iconicity in language and literature* 2, 249-276. Amsterdam: John Benjamins.
- Fischer, Olga. 2004. Developments in the category adjective from Old to Middle English. *Studies in Medieval Language and Literature* 19. 1-36.
- Fischer, Olga. 2006. On the position of adjectives in Middle English. *English Language and Linguistics* 10(2). 253-288.
- Fisiak, Jacek. 1965. *Morphemic structure of Chaucer's English*. Alabama: University of Alabama Press.
- Frege, Gottlob. 1960. On Sense and Reference. In Geach, Peter & Black, Max (eds.), *Translations from the Philosophical Writings of Gottlob Frege*, 56-79. Oxford: Basil Blackwell.
- Fries, Charles Carpenter. 1952. *The structure of English*. London: Longmans, Green & Co.
- Fulk, Robert Dennis. 2012. *An introduction to Middle English: Grammar and texts*. London: Broadview Press.
- Fulk, Robert Dennis. 2014. *An introductory grammar of Old English*. Tempe, Arizona: ACMRS Press.
- Gaeta, Livio. 2007. On the double nature of productivity in inflectional morphology. *Morphology* 17(2). 181-205.
- Ghadessy, Mohsen & Gao, Yanjie. 2001. Small corpora and translation: comparing thematic organization in two languages. In Ghadessy, Mohsen & Henry, Alex & Roseberry, Robert L. (eds.), *Small corpus studies and English language teaching: Theory and practice*, 335-359. Amsterdam: John Benjamins.

- Geuder, Wilhem. 2000. Oriented adverbs issues in the lexical semantics of event adverbs. Tübingen: University of Tübingen. (Doctoral dissertation.)
- Ghesquière, Lobke & Davidse, Kristin. 2011. The development of intensification scales in noun-intensifying uses of adjectives: sources, paths and mechanisms of change. *English Language and Linguistics* 15(2). 251-277.
- Giegerich, Heinz J. 2005. Associative adjectives in English and the lexicon–syntax interface. *Journal of linguistics* 41(3). 571-591.
- Giegerich, Heinz J. 2012. The morphology of -ly and the categorial status of ‘adverbs’ in English. *English Language and Linguistics* 16(3). 341-359.
- Giegerich, Heinz. J. 2004. Compound or phrase? English noun-plus-noun constructions and the stress criterion. *English Language and Linguistics* 8. 1-24.
- Givón, Talmy 1993. *English grammar. A function-based introduction*. Amsterdam/Philadelphia, PA: John Benjamins.
- Givón, Talmy. 1970. Notes on the semantic structure of English adjectives. *Language* 46(4). 816-837.
- Givón, Talmy. 1984. *Syntax: a functional-typological introduction. Volume I*. Amsterdam/Philadelphia: John Benjamins.
- Givón, Talmy. 2001. *Syntax: an introduction. Volume I*. Amsterdam/Philadelphia: John Benjamins.
- Gleason, Henry Allan Jr. 1955. *An Introduction to Descriptive Linguistics*. New York: Holt, Rinehart & Winston.
- Görlach, Manfred. 1991. *Introduction to early modern English*. Cambridge: Cambridge University Press.
- Guimier, Claude. 1985. On the origin of the suffix -ly. In Fisiak, Jacek (ed.), *Historical Semantics. Historical Word-formation*, 155-170. Berlin: de Gruyter.
- Guimier, Claude, 1991. Sur l’adverbe orienté vers le sujet. *Travaux linguistiques du Cerlico* 3. 97-114.

- Hall, John Richard Clark. 1894. *A Concise Anglo-Saxon Dictionary*. London: Swan Sonnenschein & Co.
- Harris, Zellig S. 1939. *Development of the Canaanite dialects: An investigation in linguistic history*. New Haven, Connecticut: American Oriental Series vol 16.
- Haspelmath, Martin, & Michaelis, Susanne Maria. 2017. Analytic and synthetic. In Buchstaller, Isabelle & Siebenhaar, Beat (eds.), *Language Variation-European Perspectives VI: Selected Papers from the Eighth International Conference on Language Variation in Europe (ICLaVE 8)*, 3-22. Amsterdam: Benjamins.
- Haspelmath, Martin. 2001. Word classes and parts of speech. In Baltes, Paul & Smelser, Neil J. (eds.), *International Encyclopedia of the Social and Behavioral Sciences*, 16538-16545. Amsterdam: Pergamon.
- Haspelmath, Martin. 2014. The Generic Style Rules for Linguistics. Zenodo. (<https://doi.org/10.5281/zenodo.253501>) (Accessed 2024/02/01)
- Haspelmath, Martin. 2024. Inflection and derivation as traditional comparative concepts. *Linguistics* 62(1). 47-77.
- Heidinger, Steffen. 2014. Thematic introduction. (Paper presented at The Interfaces of Adjective and Adverb in Romance and English, Graz, June 5 2014.)
- Hengeveld, Kees. 1992. *Non-verbal predication. Theory, typology, diachrony*. Berlin: Mouton de Gruyter.
- Hengeveld, Kees, Rijkhoff, Jan & Siewierska, Anna. 2004. Parts-of-speech system and word order. *Journal of Linguistics* 40(3). 527-570.
- Himmelmann, Nikolaus, & Schultze Berndt, Eva. 2005. *Secondary predication and adverbial modification: the typology of depictives*. Oxford: Oxford University Press
- Hockett, Charles Francis. 1958. *A course in modern linguistics*. New York: Macmillan.
- Hogg, Richard. M. & Fulk, Robert Dennis. 2011. *A grammar of Old English. Volume 2: morphology*. Wiley-Blackwell: Chichester.

- Hovdhaugen, Even. 1982. *Foundations of Western linguistics: from the beginning to the end of the first millenium AD*. Scandinavian University Press
- Huddleston, Rodney D. & Pullum, Geoffrey. K. 2002. *The Cambridge grammar of English language*. Cambridge: Cambridge University Press.
- Huddleston, Rodney D. 1984. *Introduction to the grammar of English*. Cambridge: Cambridge University Press.
- Hummel, Martin 2014. The adjective-adverb interface in Romance and English. In Sleepman, Petra & van de Velde, Freek & Perridon, Harry (eds.), *Adjectives in Germanic and Romance*, 35-72. Amsterdam/Philadelphia, PA: John Benjamins.
- Husband, Edward Matthew. 2006. Stage-level/individual-level predicates and aspect. Ms. Michigan State University.
- Jackendoff, Ray. 1997. *The architecture of the language faculty*. Cambridge, MA: MIT Press.
- Jacobsson, Bengt 1977. Adverbs, prepositions and conjunctions in English: a study in gradience. *Studia Linguistica* 31(1). 38-64.
- Jäger, Gerhard. 1999. Stage levels, states, and the semantics of the copula. *ZAS Papers in Linguistics* 14.65-94.
- Janssen, Theo M. V. 1986. *Foundations and Applications of Montague Grammar*. Amsterdam: Centrum voor Wiskunde en Informatica.
- Jespersen, Otto 1909-49. *A Modern English grammar on historical principles*. London: Allen and Unwin.
- Jespersen, Otto. 1942. *A Modern English Grammar on Historical Principles. Vol. VI. Morphology*. London: Allen & Unwin, Ltd.
- Jespersen, Otto. 1974. *A Modern English Grammar on Historical Principles, 7 Vols*. London and Copenhagen: Allen & Unwin and Munksgaard.
- Jiménez Pareja, Sandra. 2017. *Subject-relatedness outside color adjectives*. BA dissertation. Granada, University of Granada.
- Jiménez-Pareja, Sandra. 2022. On the adjective/adverb interface: subject-related -ly. *Brno Studies in English* 48 (1). 51-69.

- Jiménez-Pareja, Sandra & Salvador Valera. 2018. Additional evidence on the adjective/adverb interface: subject-related *-ly*. (Paper presented at the Word-Formation Theories III & Typology and Universals in Word-Formation IV Conference, Košice, Slovakia, 27th-30th June 2018.)
- Johnston, Trevor Alexander & Schembri, Adam. 2010. Variation, lexicalization and grammaticalization in signed languages. *Langage et société* 131(1). 19-35.
- Joseph, Brian D. 2021. On the relationship between grammaticalization and historical comparative linguistics. *Grammaticalization and Studies of Grammar*, 10. 434-450.
- Joseph, Brian D. 2003. Morphologization from syntax. In Joseph, Brian D. & R. Janda, Richard D. (eds.), *Handbook of Historical Linguistics*, 472-492. Oxford: Blackwell Publishers.
- Jurafsky, Daniel & Martin, James H. 200. *Speech and language processing*. Upper Saddle River, New Jersey: Prentice-Hall
- Kastovsky, Dieter. 1992. *Semantics and vocabulary. The Cambridge history of the English language I: The beginnings to, 1066, 290-408*. Cambridge: Cambridge University Press.
- Katz, Graham. 2008. Manner modification of state verbs. In McNally, Louise & Kennedy, Chris (eds.), *Adjectives and adverbs: Syntax, semantics and discourse (Oxford Studies in Theoretical Linguistics 19)*, 220-248. Oxford: Oxford University Press.
- Kay, Christian & Marc, Alexander & Dallachy, Fraser & Roberts, Jane & Samuels, Michael & Wotherspoon, Irené (eds.). 2021. *The historical thesaurus of English (2nd ed., version 5.0)*. University of Glasgow. <https://ht.ac.uk/> (Accessed 2021/03/16).
- Keenan, Edward L. & Faltz, Leonard M. 1985. *Boolean Semantics for Natural Language*. Dordrecht: Reidel.
- Kennedy, Christopher & McNally, Louise. 2005. Scale structure, degree modification, and the semantics of gradable predicates. *Language* 81. 345-381.
- Kibort, Anna. 2010. Towards a typology of grammatical features. In Corbett, Greville G. & Kibort, Anna (eds.), *Features: Perspectives on a key notion in linguistics*, 64-106. Oxford: Oxford University Press.

- Killie, Kristin. 1998. The spread of *-ly* to present participles. *Trends in linguistics studies and monographs* 112. 119-134.
- Kilgarriff, Adam & Grefenstette, Gregori. 2003. Introduction to the special issue on the web as corpus. *Computational linguistics* 29(3). 333-347.
- Kiparsky, Paul. 1983. Word formation and the lexicon. In Ingemann, Frances (ed.), *Proceedings of the Mid-America Linguistics Conference*, 3-29. Lawrence: Kansas
- Kirchner, Gustav. 1970. *Die syntaktischen Eigentümlichkeiten des amerikanischen Englisch. Band I*. Leipzig: Verlag Enzyklopädie.
- Kjellmer, Göran. 1984. Why great/greatly but not big/*bigly? On the formation of English adverbs in *-ly*. *Studia Linguistica* 38(1). 1-19.
- Koshiishi, Tetsuya. 2002. Collateral adjectives, latinate vocabulary, and English morphology. *Studia Anglica Posnaniensia* 37. 49-88.
- Koziol, Herbert. 1972. *Handbuch der englischen Wortbildungslehre*. Heidelberg: Winter Verlag.
- Knight, Dawn & Evans, David & Carter, Ronald & Adolphs, Svenja. 2009. HeadTalk, handTalk and the corpus: Towards a framework for multi-modal, multi-media corpus development. *Corpora* 4(1). 1-32.
- Kratzer, Angelika. 1995. Stage-level and individual-level predicates. In Carlson, Gregory & Pelletier, Francis Jeffry (eds.), *The Generic Book*, 125-175. Chicago: University of Chicago Press.
- Kytö, Merja & Romaine, Suzanne. 1997. Competing forms of adjective comparison in Modern English: What could be more quicker and easier and more effective?. In Nevalainen, Terttu & Kahlas-Tarkka, Leena (eds.), *To Explain the Present. Studies in the Changing English Language in Honour of Matti Rissanen*, 329-352. Helsinki: Mémoires de la Société Néophilologique de Helsinki.
- Lahav, Ran. 1989. Against compositionality: the case of adjectives. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 57(3). 261-279.
- Lakoff, George. 1966. Stative verbs and adjectives in English. In Report NSF-17, Harvard Computation Lab. Cambridge, MA: Harvard University.

- Larson, Richard. 1999. Semantics of adjectival modification. Lecture notes, LOT Winter School, Amsterdam.
- Lass, Roger. 1999. *The Cambridge history of the English language. Volume 3*. Cambridge: Cambridge University Press.
- Lass, Roger. 1994. *Old English: A historical linguistic companion*. Cambridge: Cambridge University Press.
- Leech, Geoffrey. 2007. New resources, or just better old ones? The Holy Grail of representativeness. In Hundt, Marianne & Nesselhauf, Nadja & Biewer, Caroline (eds.), *Corpus linguistics and the web*, 133-149. Amsterdam: Rodopi.
- Lees, Robert D. 1963. *The grammar of English nominalizations*. Bloomington: Indiana University Press & The Hague: Mouton.
- Levi, Judith N. 1978. *The Syntax and Semantics of Complex Nominals*. London: Academic Press.
- Liberman, Mark & Sproat, Richard. 1992. The stress and structure of modified noun phrases in English. In Sag, Ivan A. & Szabolcsi, Anna (eds.), *Lexical matters*, 131-181. Chicago: University of Chicago Press.
- Ljung, Magnus. 1975. State control. *Lingua* 37(2-3). 129-150.
- Lorenz, Gunther. 2002. Really worthwhile or not really significant? A corpus-based approach to delexicalization and grammaticalization of intensifiers in Modern English. In Wischer, Ilse & Diewald, Gabriele (eds.), *New reflections on grammaticalization*, 143-161. Amsterdam: John Benjamins.
- Lyons, John 1977. *Semantics: Volume II*. Cambridge: Cambridge University Press.
- Lyons, John. 1966. Towards a 'notional' theory of the 'parts of speech'. *Journal of Linguistics* 2. 209-236.
- Magnusson, Rudolf. 1954. *Studies in the Theory of the Parts of Speech*. Lund: C.W.K. Gleerup.
- Maíz-Villalta, Gema. 2010. The formation of Old English adverbs: structural description and functional explanation. *Miscelánea: A Journal of English and American Studies* 41. 37-58.

- McEnery, Tony & Wilson, Andrew. 2001. *Corpus linguistics: An introduction*, 2nd Edition. Edinburgh: Edinburgh University Press.
- McEnery, Tony & Kifle, Nazareth Amselom. 2002. Epistemic modality in argumentative essays of second-language writers. In Flowerdew, John (ed.), *Academic discourse*, 182-195. London: Longman.
- McEnery, Tony. 2005. *Swearing in English: bad language, purity, and power from 1586 to the present*. London: Routledge.
- Marchand, Hans. 1966. On attributive and predicative derived adjectives and some problems related to the distinction. *Anglia* 84. 131-149.
- Marchand, Hans. 1969. *The categories and types of Present-Day English word-formation*. 2nd edition. München: Verlag C. H. Beck.
- Martin, Jim. 1992. *English text: System and structure*. Amsterdam: John Benjamins.
- Matthews, Peter H. 1967. Word classes in Latin. *Lingua* 17. 153-181.
- Matthews, Peter H. 1980. Complex Intransitive Constructions. In Greenbaum, Sidney & Leech, Geoffrey & Svartvik, Jan (eds.), *Studies in English linguistics for Randolph Quirk*, 41-49. London: Longman.
- McIntosh, Angus. 1991. Old English adjectives with derivative -lic partners: Some semantic problems. *Neuphilologische Mitteilungen* 92. 297-310.
- McCawley, James D. 1983. The syntax of some English adverbs. *Chicago Linguistic Society* 19. 262-282.
- Michael, Ian. 1970. *English grammatical categories: and the tradition to 1800*. Cambridge: Cambridge University Press.
- Middle English Dictionary*. 1952-2001. Ed. Robert E. Lewis, et al. Ann Arbor: University of Michigan Press. Online edition in Middle English Compendium. Online edition Ann Arbor: University of Michigan Library, Online edition. (<http://quod.lib.umich.edu/m/middle-english-dictionary/>) (Accessed 2021/03/16).
- Millar, Neil. 2009. Modal verbs in TIME: frequency changes 1923-2006. *International Journal of Corpus Linguistics* 14. 191-220.
- Miller, George Armitage. 1991. *The science of words*. New York: Scientific American Library.

- Mitchell, Bruce. 1985. *Old English Syntax: Concord, the parts of speech, and the sentence*. Oxford: Clarendon Press.
- Montague, Richard. 1970. Universal grammar. *Theoria* 36. 373-398.
- Morzycki, Marcin. 2015. *Modification*. Cambridge: Cambridge University Press.
- Mossé, Fernand. 1952. *A handbook of Middle English*. Baltimore: The Johns Hopkins University Press.
- Mustanoja, Tauno F. 1960. *A Middle English syntax*. Helsinki: Société Néophilologique.
- Nesi, Hilary; Gardner, Sheena; Thompson, Paul; et al. 2008. *British Academic Written English Corpus*. Oxford Text Archive. <http://hdl.handle.net/20.500.12024/2539>
- Nevalainen, Terttu. 1997. The processes of adverb derivation in Late Middle and Early Modern English. *Topics in English Linguistics* 24. 145-190.
- Nevalainen, Terttu. 1999. Early Modern English lexis and semantics. In Lass, Roger (ed.), *The Cambridge history of the English language vol. 3, 1476-1776*. Cambridge: Cambridge University Press.
- Nevalainen, Terttu. 2006. *Introduction to Early Modern English*. Edinburgh: Edinburgh University Press.
- Newell, Heather. 2005. Bracketing paradoxes and particle verbs: A late adjunction analysis. In Blaho, Sylvia & Luis Vicente & Schoorlemmer, Erik (eds.), *Proceedings of ConSOLE XIII*, 249-272. Leiden: University of Leiden.
- Nicolai, Otto. 1907. *Die bildung des adverbs im altenglischen*. Kiel: H. Fiencke.
- Nurmi, Arja. 2017. Early Modern English: overview. In Alexander Bergs, Alexander & Brinton, Laurel J. (eds.), *The History of English. Volume 4, Early Modern English*, 8-26. Berlin, Boston: De Gruyter Mouton.
- Onions, Charles T. 1983. *The Oxford Dictionary of English Etymology*. Oxford: Clarendon Press.
- Paradis, Carita & Willners, Caroline. 2006. Antonymy and negation: The boundedness hypothesis. *Journal of Pragmatics* 38. 1051-1080.

- Paradis, Carita. 2000. Reinforcing adjectives: A cognitive semantic perspective on grammaticalisation. *Topics in English Linguistics* 31. 233-260.
- Paradis, Carita. 2001. Adjectives and boundedness. *Cognitive Linguistics* 12. 47-65.
- Pavličková, Eva. 2014. On the indirectness of non-inherent adjectives. In Dontcheva-Navrátilová, Olga & Walková, Milada (eds.), *English matters IV: a collection of papers*, 34-41. Prešov: Prešovská univerzita v Prešove
- Payne, John, Huddleston, Rodney & Pullum, Geoffrey K. 2010. The distribution and category status of adjectives and adverbs. *Word Structure* 3. 31-81.
- Pelletier, Francis Jeffry. 1994. The principle of semantic compositionality. *Topoi* 13(1). 11-24.
- Peters, Francis J.J. & Swan, Toril. 1983. *American English: a handbook and sociolinguistics perspective*. Oslo: Novus.
- Pierrehumbert, Janet B. & Granell, Ramon. 2018. On hapax legomena and morphological productivity. In: Kuebler, Sandra & Nicolai, Garrett (ed.), *Proceedings of the Fifteenth Workshop on Computational Research in Phonetics, Phonology, and Morphology*, 125-130. Brussels, Belgium.
- Pilch, Herbert. 1970. *Altenglische grammatik*. München: Max Hueber Verlag.
- Piñón, Christopher. 2009. Agent oriented adverbs as manner adverbs. (Paper presented at the In Ereignissemantik workshop, Humboldt Universität, 11-12 December 2009.)
- Plag, Ingo. 2003. *Word-formation in English*. Cambridge: Cambridge University Press.
- Plank, Frans. 1994. Inflection and derivation. In Asher, Ron E. (ed.), *The encyclopedia of language and linguistics*, 1671-1678. Oxford: Pergamon.
- Pounder, Amanda. 2001. Adverb-marking in German and English. System and standardization. *Diachronica* 18(2). 301-358.
- Priestley, Joseph. 1761a. *The rudiments of English grammar; adapted to the use of schools. With observations on style*. London: R. Griffiths.

- Priestley, Joseph. 1769. *The Rudiments of English Grammar*. London: T. Becket and PA De Hondt.
- Proffitt, Michael. 2021. *The Oxford English Dictionary*. Available online at (<https://www.oed.com>) (Accessed 2024/01/15).
- Pustejovsky, James. 1995. *The generative lexicon*. Cambridge, MA: MIT Press.
- Pyles, Thomas & Algeo, John. 1982. *The origins and development of the English language*. New York: Harcourt Brace Jovanovich.
- Pyles, Thomas. & Algeo, John. 1970. *The origins and development of the English language, 3rd edition*. New York: Harcourt Brace Jovanovich.
- Quine, Willard Van Orman. 1960. *Word and object*. Cambridge, MA: MIT Press.
- Quirk, Randolph & Wrenn, Charles Leslie. 1955. *An Old English grammar*. London: Methuen & Co LTD.
- Quirk, Randolph & Greenbaum, Sidney & Leech, Geoffrey & Svartvik, Jan. 1985. *A comprehensive grammar of the English language*. London and New York: Longman. 399-654.
- Radford, Andrew. 1988. *Transformational grammar: A first course*. Cambridge: Cambridge University Press.
- Rauh, Gisa 2010. *Syntactic categories. Their identification and description in linguistic theories*. Oxford: Oxford University Press.
- Ricca, Davide. 2003. Cumulazione tra flessione e derivazione: un problema per una morfologia modulare. In Bisetto, Antonietta & Thornton, Anna Maria & Iacobini, Claudio (eds.), *Scritti di morfologia in onore di Sergio Scalise in occasione del suo 60° compleanno*, 447-466. Bologna: Caissa Italia.
- Rissanen, Matti; Kytö, Merja; Kahlas-Tarkka, Leena; Kilpiö, Matti; Nevanlinna, Saara; Taavitsainen, Irma; Nevalainen, Terttu, Raumolin-Brunberg, Helena; Honkapohja, Aalpo; Kaislaniemi, Samuli; Kauhanen, Henri; Marttila, Ville; Nurmi, Arja & Tyrkkö, Jukka. 2021. *Helsinki Corpus of English Texts*, VRT [data set]. <http://urn.fi/urn:nbn:fi:lb-2021051901>

- Roberts, Jane; Kay, Christian & Grundy, Lynne. 2017. *A Thesaurus of Old English*. Glasgow: University of Glasgow.
<http://oldenglishthesaurus.arts.gla.ac.uk/>
- Robins, Robert H. 1966. The development of the word class system of the European grammatical tradition. *Foundations of Language* 2. 3-19.
- Rogers, Andy. 1971. Three kinds of physical perception verbs. *Papers from the Seventh Regional Meeting of the Chicago Linguistic Society (CLS)* 37. 206-222.
- Ross, John Robert. 1967. *Constraints on variables in syntax*. Cambridge, MA: MIT. (Doctoral dissertation.)
- Scalise, Sergio. 1988. Inflection and derivation. *Linguistics* 26. 561-581.
- SCOTS. 2004. *The Scottish Corpus of Texts & Speech*.
<https://www.scottishcorpus.ac.uk/>
- Siegel, Dorothy. 1974. *Topics in English morphology*. Cambridge, MA: MIT. (Doctoral dissertation.)
- Sinclair, John. 1991. *Corpus, concordance, collocation*. Oxford: Oxford University Press.
- Somers, Harold. L. 1984. On the validity of the complement-adjunct distinction in valency grammar. *Linguistics* 22(4). 507-530.
- Spencer, Andrew. 1988. Bracketing paradoxes and the English lexicon. *Language* 64(4). 663-682.
- Spencer, Andrew. 2016. Two morphologies or one? Inflection versus word-formation. In Hippisley, Andrew & Stump, Gregory (eds.), *The Cambridge handbook of morphology*, 27-49. Cambridge: Cambridge University Press.
- Sproat, Richard. 1984. On bracketing paradoxes. *MIT Working Papers in Linguistics* 7. 110-130.
- Štekauer, Pavol. 2015. The delimitation of derivation and inflection. In Muller, Peter O. & Ohnheiser, Ingeborg & Olsen, Susan & Rainer, Franz (eds.), *World-formation: An international handbook of the languages of Europe*, vol. 1, 218-235. Berlin & Boston: De Gruyter Mouton.
- Stephany, Ursula. 1982. Inflectional and derivational morphology: A linguistic continuum. *Glossologia* 1. 27-55.

- Stirling, Lesley. & Huddleston, Rodney. 2002. Deixis and anaphora. In Huddleston, Rodney D. & Pullum, Geoffrey. K. (eds.), *The Cambridge grammar of English language, 1449-1564*. Cambridge: Cambridge University Press.
- Stump, Gregory T. 2001. *Inflectional morphology: A theory of paradigm structure*. Cambridge: Cambridge University Press.
- Strang, Barbara M.H. 1970. *A history of English*. London and New York: Routledge.
- Sugioka, Yoko & Lehr, Rachel. 1983. Adverbial -ly as an inflectional affix. In Richardson, John F. & Marks, Mitchell & Chukerman, Amy (eds.), *Papers from the parasession on the interplay of phonology, morphology and syntax. Chicago Linguistic Society, volume 19*, 293-300. Chicago: Chicago Linguistic Society.
- Sussex, Roland. 1974. The deep structure of adjectives in noun phrases. *Journal of Linguistics* 10(1). 111-131.
- Swan, Toril. 1997. From manner to subject modification: adverbialization in English. *Nordic Journal of Linguistics* 20(2). 179-195.
- Sweet, Henry. 1891. *A new English grammar, logical and historical*. Oxford: Clarendon Press.
- ten Hacken, Pius. 2019. Relational adjectives between syntax and morphology. *SKASE Journal of Theoretical Linguistics* 16(1). 77-92.
- Tesnière, Lucien 1959. *Éléments de syntaxe structurale*. Paris: Klincksieck.
- Uhler, Karl. 1926. *Die bedeutungsgleichheit der altenglischen adjektiva und adverbia mit und ohne-lic (-lice)*. Heidelberg: Winter Verlag.
- Valera Hernández, Salvador. 1996. *Adjetivos y adverbios en inglés: la relación de homomorfía*. Granada: Servicio de Publicaciones de la Universidad de Granada.
- Valera, Salvador. 1998. On subject-orientation in English -ly adverbs. *English Language and Linguistics* 2(2). 263-282.
- Valera, Salvador. 2014. English ‘-ly’ adverbs: from subject orientation to conversion. *Studia Anglia Posnaniensia* 49(1). 77-102.

- Valera, Salvador. 2020. Polysemy versus homonymy. In Lieber, Rochelle (ed.), *Oxford Research Encyclopedia of Morphology*. Oxford: Oxford University Press.
- Váradi, Tamás. 2001. The Linguistic Relevance of Corpus Linguistics. In Paul Rayson, Paul & Wilson, Andrew & McEnery, Tony & Hardie, Andrew & Khoja, Shereen (eds.), *Proceedings of the Corpus Linguistics 2001 conference*, 587-593. Lancaster: University centre for computer corpus research on language.
- Vendler, Zeno. 1957. Verbs and times. *The philosophical review* 66(2). 143-160.
- Vendler, Zeno. 1968. *Adjectives and nominalizations*. The Hague: De Gruyter Mouton.
- Volná, Veronika & Šaldová, Pavlína. 2022. The dynamics of postnominal adjectives in English. *Anglica* 31(2). 31-47.
- Welna, Jerzy. 2017. Morphology. In Brinton, Laurel J. & Bergs, Alexander (eds.), *The history of English volume 3 Middle English*, 50-75. Berlin, Boston: De Gruyter Mouton.
- Whorf, Benjamin Lee. 1945. Grammatical categories. *Language* 21(1). 1-11.
- Williams, Edwin. 1981. On the notions "lexically related" and "head of a word". *Linguistic Inquiry* 12. 245-274.
- Wright, Joseph & Wright, Elizabeth Mary. 1914. *Old English Grammar*. Oxford: Oxford University Press
- Zwicky, Arnold M. 1995. Why English adverbial -ly is not inflectional. In Dainora, Audra & Hemphill, Rachel & Luka, Barbara & Need, Barbara & Pargman, Sheri (eds.), *Papers from the 31st Regional Meeting of the Chicago Linguistic Society: Volume 1: Main Session*, 513-535. Chicago: Chicago Linguistic Society.

RESUMEN EXTENSO DE LA TESIS (MENCIÓN INTERNACIONAL)

1. Introducción

La clasificación de las unidades léxicas que conforman una lengua ha sido objeto de grandes cambios a lo largo de la historia. Varias han sido las clasificaciones propuestas para la lengua inglesa, pero el modelo más usado y adoptado por las gramáticas tradicionales ha sido el modelo clásico compuesto de ocho clases de palabras. La clasificación de adjetivos y adverbios ha sido objeto de numerosos debates. Las clasificaciones tradicionales consideran que adjetivos y adverbios son dos clases de palabras separadas, estando los primeros asociados con la expresión de estados o cualidades de un sustantivo y los segundos con la expresión de circunstancia o manera. Por tanto, la clase de palabra adjetivo modifica a la clase de palabra sustantivo y la clase de palabra adverbio al resto de clases de palabras (Bauer 1983; Quirk, Greenbaum, Leech & Svartvik 1985; Bauer & Huddleston 2002; Carstairs-McCarthy 2002). El desarrollo de adjetivos y adverbios desde el periodo de inglés antiguo ha sido el siguiente:

- i) La evolución de adjetivos: algunos autores han argumentado que en inglés antiguo existían alrededor de treinta afijos que tenían diferentes significados asociados y se usaban en la formación de adjetivos (Pilch 1970; Katovsky 1992; Lass 1994; Quierk & Wrenn 1994). Sin embargo, se ha considerado que esta clasificación no aplica criterios de manera sistemática y un análisis más exhaustivo de la formación de adjetivos en inglés antiguo ha proporcionado una lista de al menos cincuenta afijos usados para derivar adjetivos (Vea Escarza 2013: 20-

21). De estos afijos, uno de los más usados era el sufijo *-lic* que llegó a aplicarse automáticamente a todos los adjetivos, por lo que la mayoría de adjetivos tenían un equivalente formado con este sufijo (Uhler 1926: 62-63). En relación a la flexión, los adjetivos compartían el modelo flexivo de los sustantivos, siendo estos flexionados para expresar género, caso y número (Wright & Wright 1912: 207). Los adjetivos eran usados en posición predicativa después del verbo y antes o después del sustantivo que modificaban, aunque su posición más común era en la que precedían al sustantivo (Mitchell 1985: 49; Fischer 2004: 1). Durante el periodo de inglés medio, los adjetivos eran mayormente derivados de sustantivos, pero el número de sufijos utilizados en la formación de adjetivos disminuyó con respecto al periodo anterior (Jespersen 1942; Frisiak 1965; Marchand 1969). Los cambios también afectaron a la morfología flexiva de los adjetivos, perdiendo la marca que indicaba género, caso y número por lo que no había distinción entre, por ejemplo, singular y plural. Con respecto a la posición sintáctica, los adjetivos aparecían mayormente en posición prenominal y la posición posnominal quedaba limitada para algunos tipos de modificación adjetival o estructuras de dos o más adjetivos (Mossé 1952: 123). Durante este periodo se empezó a establecer un orden de los elementos en la oración. En el periodo correspondiente al inglés moderno temprano, los adjetivos seguían derivándose por afijación y mediante un nuevo proceso de creación de palabras denominado ‘anglicanización’ mediante el cual se eliminaba la terminación flexiva de palabras extranjeras para añadirlas al léxico inglés (Barber 1976; Görlach 1991; Nevalainen 1999). En inglés moderno, los adjetivos son creados con procesos de formación de palabras tales como conversión, composición o afijación. Esto hace que haya adjetivos morfológicamente marcados con algún afijo o adjetivos que no tienen ninguna forma identificativa. Sintácticamente, los adjetivos siguen apareciendo en posición atributiva, predicativa y posnominal, siendo esta última menos común y quedando restringida a un número limitado de adjetivos. Una propiedad común de adjetivos durante todos los periodos del inglés es el uso de sufijos flexivos y estructuras perifrásticas para la expresión de grado comparativo y superlativo los cuales han sido utilizados desde inglés antiguo al inglés moderno.

- ii) La evolución de adverbios: la clase de palabra adverbio no ha recibido mucha atención en estudios diacrónicos por lo que algunas gramáticas ofrecen una descripción breve de las características de esta clase de

palabra (Mitchell 1985; Campbell 1987; Lass 1994) y son escasos los trabajos que se centran en la formación de adverbios (Nicolai 1907). Ante la necesidad de un análisis completo de la creación de adverbios en este periodo, un estudio basado en datos de corpus ha argumentado que los procesos de formación de adverbios en inglés antiguo eran afijación, conversión y composición (Maíz Villada 2010: 41). De estos tres procesos, el más productivo es sufijación, siendo los sufijos *-e* y *-lice* los más productivos (Uhler 1926: 1-2; Mustanoja 1960: 34; Lass 1994: 207-208; Maíz Villada 2010: 41). Como la mayoría de adjetivos durante este periodo se creaba usando el sufijo *-lic*, la adición del sufijo *-e* formaba la terminación *-lice* por lo que el sufijo *-lice* empezó a ser considerado el sufijo utilizado para la formación de adverbios en inglés medio. Sin embargo, al final de este periodo, el proceso de nivelación causó la pérdida de la ‘e’ final en el sufijo *-lice* lo que dificultó la diferenciación de adjetivos y adverbios que eran morfológicamente idénticos. Sintácticamente, los adverbios podían modificar a otras clases de palabras como, por ejemplo, adjetivos, adverbios, verbos, o conjunciones, y precedían a estos elementos (Mitchell 1985: 468). Cuando un adverbio modificaba a un verbo podía aparecer tanto en posición preverbal como posverbal (Quirk & Wrenn 1957: 90-92). Durante el periodo correspondiente al inglés moderno temprano, los adverbios también eran derivados mediante sufijación y, a pesar de existir varios sufijos para formar adverbios, la forma correspondiente al sufijo *-lic*, es decir, el sufijo *-ly* era el más productivo, considerado el sufijo para derivar adverbios de adjetivos. En inglés moderno, la clase de palabra adverbio es considerada una clase de palabra heterogénea al contener adverbios morfológicamente simples, otros derivados por composición y otros derivados por sufijación. Al igual que en periodos anteriores, el sufijo más productivo para formar adverbios en este periodo es el sufijo *-ly* que puede ser añadido a la mayoría de adjetivos a excepción de aquellos que terminan en *-ly*, los adjetivos cuya forma adverbial ya existe (*good > well*) y adjetivos estáticos (Kjellmer 1984; Quirk, Greenbaum, Leech & Svartvik 1985). Sintácticamente, los adverbios pueden aparecer precediendo a los elementos que modifican, pero una de las características de estas palabras en el periodo actual es su movilidad en la oración y la misma unidad puede ocupar diferentes posiciones dependiendo de los elementos que modifique. Como los adjetivos, una de las propiedades compartidas por los adverbios durante todos los periodos de la lengua es el uso de los mismos sufijos flexivos y estructuras perifrásticas

usadas para expresar grado comparativo y superlativo también por adjetivos.

Esta descripción de adjetivos y adverbios muestra las características de ambas clases de palabras que han sido consideradas en las clasificaciones tradicionales de estas categorías gramaticales. El problema en la descripción de estas palabras aparece cuando miembros de una clase de palabra puede realizar funciones asociadas a la otra clase de palabra y viceversa. Las unidades que exhiben un comportamiento típicamente asociado a otra categoría gramatical se encuentran en el espacio categorial entre clases de palabras (Givón 2001) o, más concretamente para el estudio de esta tesis la interfaz adjetivo/adverbio (Hummel 2014). Esta interfaz es el espacio entre las clases de palabras que comprende las unidades léxicas que, debido a sus propiedades, no pueden clasificarse como miembros claros de la clase de palabra adjetivo o adverbio y que hacen difícil la diferenciación de estas categorías gramaticales. Dentro de las unidades que se encuentran en la interfaz adjetivo/adverbio, se pueden encontrar los adjetivos no inherentes y los adverbios relacionados con el sujeto, los cuales son el centro de la presente investigación.

Los adjetivos no inherentes han sido definidos como adjetivos atributivos que no caracterizan al sustantivo que preceden (Bolinger 1972). Uno de los estudios clásicos de este tipo de estructuras (Levi 1978) proporciona una lista de ejemplos de adjetivos que no caracterizan a los sustantivos centrandos su análisis en los denominados sustantivos compuestos, es decir, un tipo de estructura que contiene sustantivos precedidos de adjetivos derivados de sustantivos. A pesar de ser un estudio muy exhaustivo, los adjetivos de procedencia adverbial que la autora menciona al principio del estudio son excluidos del análisis realizado. Otros estudios se centran en el análisis de estas combinaciones como sintagmas, como casos de composición o estudios croslingüísticos (Lahav 1988; Beard 1991; Giegerich 2005; ten Hacken 2019). Las investigaciones que se centran en adjetivos no inherentes con significado adverbial están restringidos a grupos pequeños de adjetivos que son normalmente clasificados como intensificadores (Quirk, Greenbaum, Leech & Svartvik 1985; Ghesquière & Davidse 2011; Pavlíčková 2014). Aunque algunos autores realizan estudios de corpus sobre este tipo de adjetivos, las investigaciones suelen presentar limitaciones tales como un número limitado de adjetivos estudiados o de textos analizados.

Por otra parte, las unidades marcadas dentro de la interfaz adjetivo/adverbio que forman parte de la presente tesis son los denominados adverbios relacionados con el sujeto. Estos adverbios han sido definidos como

adverbios orientados al sujeto que no realizan la función adverbial y, por lo tanto, solo retienen la función adjetival (Díaz-Negrillo 2014; Valera 2014). La relación al sujeto se ha identificado en un grupo de adjetivos concreto, específicamente adjetivos de color (Valera 2014), los cuales son considerados miembros centrales de esta categoría gramatical (Dixon 1977). Estos adverbios pueden aparecer tanto en sintagmas como en oraciones y se han propuesto dos tipos de relación al sujeto (Valera 2014). El primer tipo es relación al sujeto intrínseca que se produce a causa de propiedades inherentes de los adverbios relacionados con el sujeto que no permiten la interpretación adverbial. El segundo tipo es relación al sujeto extrínseca y se produce por la incompatibilidad entre el verbo y el adverbio relacionado con el sujeto en una combinación determinada.

La descripción de las unidades morfológicamente marcadas y no marcadas muestra como adjetivos y adverbios se mezclan y su clasificación se dificulta. Por consiguiente, hay autores que van más allá de la interfaz y afirman que adjetivos y adverbios son una misma clase de palabra y que el sufijo *-ly* debería ser considerado un sufijo flexivo (Hockett 1958: 210; Stephany 1982: 27-55; Sugioka & Lehr 1983: 295; Plag 2003; Giegerich 2012). Estos estudios se basan en propiedades morfológicas y sintácticas de adjetivos y adverbios que muestran un comportamiento flexivo del sufijo *-ly* y apoyan una clasificación en la que la lengua inglesa carece de la clase de palabra adverbio y tiene adjetivos marcados y no marcados. Por tanto, en esta clasificación el sufijo *-ly* crea adjetivos marcados y proporciona propiedades sintácticas en lugar de dotar a la palabra en *-ly* con significado adverbial (Giegerich 2012).

1.1 Justificación y objetivos

A pesar de la atención que han recibido las unidades en la interfaz adjetivo/adverbio, los estudios de corpus que ofrecen evidencias y un análisis exhaustivo de las propiedades semánticas de adjetivos no-inherentes y adverbios relacionados con el sujeto son escasos. Por tanto, con el fin de realizar un estudio detallado de los adjetivos y adverbios objeto de esta investigación, los objetivos de esta tesis son:

- i) identificar y cuantificar los adjetivos no inherentes que presentan significados adverbiales en BNC y COCA,
- ii) describir cuantitativamente y cualitativamente las propiedades semánticas de adjetivos no inherentes y los sustantivos con los que se combinan,

- iii) identificar y cuantificar adverbios relacionados con el sujeto con bases adjetivales diferentes a adjetivos de color en BNC, COCA, DOE Web Corpus y CMEPV, y
- iv) describir cuantitativamente y cualitativamente las propiedades semánticas de los adverbios relacionados con el sujeto, así como los patrones semánticos en los que se encuentran estos adverbios, las propiedades semánticas del resto de elementos oracionales y propiedades características de estos adverbios en los diferentes periodos de la lengua.

El desarrollo de estos objetivos puede contribuir en la descripción de adjetivos y adverbios tratando de resolver las siguientes preguntas:

- i) ¿qué valor tiene la marca morfológica en adjetivos y adverbios?
- ii) ¿afecta *-ly* al significado de adjetivos y adverbios?
- iii) ¿qué clasificación corresponde a estas clases de palabras?

2. Método

El método utilizado para la recogida y análisis de datos se ha llevado a cabo en diferentes corpus de datos sincrónicos y diacrónicos. La elección de cada corpus está basada en las siguientes propiedades:

- i) Corpus sincrónico: tanto BNC como COCA son corpus extensos y representativos que ofrecen ejemplos reales de la lengua producida por hablantes nativos en el Reino Unido y los Estados Unidos. El sistema operativo de ambos corpus permite la búsqueda de combinaciones de clases de palabras, y los metadatos ofrecidos por ambos corpus permiten el análisis de características de los ejemplos, como su registro o año de producción.
- ii) Corpus diacrónico: los corpus DOE Web Corpus y CMEPV tienen una gran extensión y contienen textos que representan la lengua usada desde inglés antiguo a inglés moderno temprano. Además, estos corpus indican varias formas de las palabras que se analizan y clasifican los ejemplos conforme a su sentido en cada ejemplo.

2.1 Adjetivos no inherentes

La clase de palabra adjetivo contiene muchos miembros con diferentes propiedades morfológicas, por lo que la recogida de datos utilizando una sintaxis de búsqueda genérica como *[j*]* *[nn*]* no da resultados porque el número de bigramas en el corpus es muy alto. Basándonos en investigaciones previas que muestran que la mayoría de adjetivos no inherentes son

morfológicamente simples y que algunos sufijos son más comunes en adjetivos no inherentes, se siguieron dos pasos:

- i) Búsquedas de adjetivos específicos que preceden a un sustantivo: la sintaxis de búsqueda utilizada para estos adjetivos es *[____] [nn*]*, donde el primer elemento contiene un adjetivo como, por ejemplo, *[complete] [nn*]*.
- ii) Búsquedas de adjetivos derivados con diferentes sufijos: la sintaxis de búsqueda utilizada es **____[jj*] [nn*]*, donde el primer elemento se completa con un sufijo como, por ejemplo, **ous[jj*] [nn*]*.

El uso de estas sintaxis de búsqueda permitió el análisis de un total de 53.737 bigramas que contenían sustantivos precedidos de adjetivos. A los bigramas obtenidos se le aplicaron diferentes paráfrasis para comprobar si su significado era adverbial o podían caracterizar al sustantivo que precedían. Los adjetivos no inherentes, un total de 213 bigramas, se clasificaron dependiendo del significado adverbial que expresaban y se analizaron las propiedades semánticas de los sustantivos con los que combinaban.

2.2 Adverbios relacionados con el sujeto

El método seguido para identificar adverbios relacionados con el sujeto difiere dependiendo del periodo de la lengua que se analiza.

Para la identificación de adverbios relacionados con el sujeto en inglés antiguo, se analizaron las listas de adverbios de las letras A-I disponibles en el DOE Web Corpus. Para la parte de inglés medio, se analizaron los homólogos de los adverbios obtenidos en inglés antiguo que aparecían en el CMEPV. Tras la aplicación de paráfrasis para comprobar la interpretación adverbial y predicativa de los adverbios, un total de 89 ejemplos fueron clasificados como casos de relación al sujeto y analizados semánticamente.

La recogida de datos en inglés moderno se desarrolló usando las mismas sintaxis de búsqueda en BNC y COCA. Con el objetivo de analizar el máximo número de ejemplos posible y llegar a frecuencia 1, la búsqueda se dividió en bloques dependiendo de la primera letra de cada verbo hasta completar el abecedario. La sintaxis de búsqueda usada es **a.[vvd*] *ly.[R]* en la que la primera letra es sustituida por el resto de letras del abecedario hasta completar todas las búsquedas. Las listas obtenidas contenían un total de 52.182 bigramas que contenían verbos seguidos de adverbios, a los que se les aplicó diferentes paráfrasis para comprobar su interpretación adverbial y predicativa. De esos bigramas, un total de 515 fueron clasificados como casos de relación

al sujeto y tanto los adverbios en como el resto de componentes oracionales, específicamente el sujeto y el verbo, fueron semánticamente analizados.

3. Resultados & Discusión

Con relación a los adjetivos no inherentes, los resultados de esta tesis muestran la relevancia que tiene la compatibilidad semántica entre el adjetivo y el sustantivo al que precede en la habilidad del adjetivo de desarrollar sentidos no inherentes. Las concordancias analizadas en el corpus presentan la misma combinación de adjetivo y sustantivo, pero solo en una de las combinaciones es posible puede apreciarse el sentido no inherente del adjetivo. Este contraste puede verse en *complete beginner* ‘completo novato/principiante’ y *complete discourse* ‘discurso completo’, donde solamente el primer ejemplo da lugar a un sentido no inherente de *complete*. El significado de *complete* que se refiere a tener todas las partes puede caracterizar un discurso, pero no puede caracterizar a un principiante, refiriéndose *complete* en el primer ejemplo al grado en el que una persona es principiante en algo. Esta distinción no se limita a la expresión de GRADO y puede observarse en adjetivos que expresan, por ejemplo, LOCALIZACIÓN ESPACIAL.

Otra de las características que se observan en los datos obtenidos es la evolución de adjetivos como *perfect* que pueden aparecer en ejemplos donde solo caracterizan al sustantivo, ejemplos donde caracterizan al sustantivo y también permiten un sentido no inherente y ejemplos en los que solo el sentido no inherente es posible. En estos ejemplos, se puede apreciar un proceso de readaptación léxica por la cual los sentidos de los adjetivos se reajustan al contexto en el que aparecen.

En lo relativo al análisis cuantitativo de adjetivos no inherentes, los datos indican que la mayoría de los adjetivos expresan GRADO y LOCALIZACIÓN ESPACIAL, mientras que la expresión de MODALIDAD, LOCALIZACIÓN TEMPORAL y PROCESO es menos frecuente. Las combinaciones más comunes son:

- i) los adjetivos no inherentes tienden a combinar con sustantivos incontables, inanimados y abstractos en un 55,7%, 87,5% y 54,4% de los casos analizados respectivamente,

- ii) adjetivos que expresan GRADO aparecen frecuentemente en combinaciones con sustantivos incontables, inanimados y abstractos, en un 62,8%, 51% y 55,5% de los casos, respectivamente, y
- iii) adjetivos que expresan LOCALIZACIÓN ESPACIAL aparecen frecuentemente en combinaciones con sustantivos concretos y contables en un 55,5% y 42% de los casos, respectivamente,
- iv) el resto de combinaciones no muestra diferencias significativas.

En cuanto a los adverbios relacionados con el sujeto, los datos muestran similitudes en el comportamiento de estos adverbios en los diferentes periodos de la lengua inglesa. Estos adverbios aparecen en patrones semánticos en los que combinan con verbos dinámicos, estáticos, ‘stance’ y copulativos. En combinaciones con verbos dinámicos o ‘stance’, la forma adverbial es la esperada para este tipo de estructura sintáctica debido a los patrones de complementación de este tipo de verbos. Sin embargo, el significado expresado por los adverbios no es compatible con una interpretación adverbial y, a pesar de ser verbos que permiten la expresión de circunstancia o manera, esta interpretación no puede realizarse por las propiedades semánticas de los adverbios. En las combinaciones con verbos estáticos o copulativos, la marca adverbial parece no alterar el significado del adverbio, siendo este el mismo que el de su base adjetival. Estos adverbios muestran que, contrariamente a los argumentado en investigaciones previas (Kjellmer 1984), las bases adjetivales estáticas aceptan sufijación con *-ly*. Las propiedades semánticas de los adverbios relacionados con el sujeto creados a partir de bases adjetivales estáticas son [-CONTROL] y [+TEMPORAL].

Una de las propiedades observadas en los datos de inglés moderno es la relevancia de la morfología de la base adjetival en la capacidad de los adverbios en ser adverbios relacionados con el sujeto. En los casos en los que un adjetivo puede formarse con dos sufijos diferentes como, por ejemplo, *worried/worrying* ‘preocupado/preocupante’ o *delightful/delighted* ‘encantador/encantado’, los adjetivos que acaban en *-ed* tienden a formar adverbios relacionados con el sujeto cuando se les añade el sufijo *-ly*. Los datos de inglés antiguo e inglés medio muestran que los adverbios relacionados con el sujeto pueden aparecer en estructuras sintácticas en las que modifican a otro elemento nominal que no está en posición de sujeto, sino que es un objeto sintáctico.

Los datos cuantitativos de los adverbios relacionados con el sujeto indican que las combinaciones de estos adverbios con verbos dinámicos son más comunes en inglés moderno (74,85%), mientras que las combinaciones con

verbos estáticos son más comunes en inglés antiguo e inglés medio (41% y 48%, respectivamente). El resto de patrones semánticos no muestra diferencias significativas entre los diferentes periodos. La clase semántica de las bases adjetivales usadas en la creación de adverbios relacionados con el sujeto no indica diferencias significativas entre los periodos de la lengua. No obstante, se puede observar que el uso de bases adjetivales que expresan ESTADO incrementa en inglés medio y en inglés moderno. La propiedad más relevante de estos adverbios la muestran los datos sobre su registro, ya que la mayoría de los casos ocurren en el mismo registro, específicamente prosa.

La existencia de estas unidades morfológicamente marcadas y no marcadas en la interfaz adjetivo/adverbio y, especialmente, la habilidad de las unidades marcadas de desarrollar funciones atribuidas a los adjetivos, cuestiona el valor de la marca *-ly*. El comportamiento de los adverbios relacionados con el sujeto parece ajustarse a los criterios propuestos para la morfología flexiva, siendo las propiedades de estos adverbios las siguientes:

- i) obligatoriedad sintáctica,
- ii) alta productividad,
- iii) morfología exclusiva que no permite el uso de otros sufijos flexivos, y
- iv) ausencia de significado léxico y, por tanto, cambio de la clase de palabra.

La clasificación de *-ly* como flexivo lleva a la necesidad de la asignación de un paradigma flexivo que recoja las propiedades de este morfema. En las gramáticas actuales parece no existir un paradigma que describa el comportamiento de *-ly*, por lo que se propone un nuevo paradigma flexivo para la clase de palabra adjetivo, que se denomina DISTRIBUTIONAL y que pretende describir las propiedades sintácticas que *-ly* proporciona a los adverbios relacionados con el sujeto. Estas propiedades son una posición sintáctica concreta y la posibilidad de usar componentes sintácticos simples en registros específicos.

4. Conclusiones

La presente tesis contribuye al estudio de la interfaz adjetivos/adverbio en lo siguiente:

- i) La investigación de adjetivos no inherentes aporta evidencias obtenidas de corpus que muestran la importancia del sentido de los adjetivos en su capacidad para ser no inherentes. Otros de los factores clave es la compatibilidad semántica entre el adjetivo y el sustantivo.

- ii) Este análisis muestra la gran variedad de significados adverbiales expresados por los adjetivos no inherentes y cómo los adjetivos con diferentes significados tienen más posibilidad de combinar con sustantivos con diferentes propiedades semánticas.
- iii) El análisis de adverbios relacionados con el sujeto muestra que esta característica de las unidades marcadas no está limitada al inglés moderno o a una clase semántica de adjetivos, sino que aparece en todos los periodos de la lengua y en bases adjetivales diferentes a los adjetivos de color.
- iv) Estas unidades muestran un comportamiento de *-ly* que se ajusta a los criterios establecidos para la morfología flexiva y que apoyan lo argumentado en investigaciones previas sobre la clasificación de adjetivos y adverbios (Giegerich 2012).

Basándonos en los datos obtenidos, la clasificación de adjetivos y adverbios propuesta en esta investigación no puede dar una respuesta a la clasificación general de adjetivos y adverbios, sino a la clasificación de los adverbios analizados, concretamente los adverbios relacionados con el sujeto. Este estudio también muestra algunas limitaciones relacionadas con las bases de datos utilizadas. Debido a la sintaxis de búsqueda para la recogida de datos diacrónicos, no se ha podido identificar relación al sujeto en diferentes tipos de estructuras sintácticas. El análisis de datos diacrónicos solo cubre adverbios que comienzan con las letras A-I por ser las únicas letras disponibles en el corpus durante el proceso de recopilación de datos. El proceso de nivelación durante el inglés medio puede dar lugar a confusión en la clasificación de los adverbios de este periodo. Sin embargo, durante la recolección de datos se tuvo en cuenta este proceso y solo se analizaron las formas adverbiales correspondientes a adverbios de inglés antiguo. Este inconveniente podría evitarse analizando todas las formas adverbiales y adjetivales del texto donde aparece el ejemplo para comprobar si el proceso de nivelación se refleja en el texto. Pero el análisis al que da acceso el corpus permite el análisis de la oración donde aparece el ejemplo y no del texto completo.

En resumen, esta tesis aporta evidencias de corpus y el análisis de dos de las unidades de la interfaz adjetivo y adverbio. Aunque los resultados apoyan investigaciones previas y aportan nuevos datos para la clasificación de las unidades marcadas, un análisis de los datos diacrónicos que incluya más listas de adverbios y el análisis sincrónico de las propiedades de estos adverbios aún sin explorar, aportaría una descripción más exhaustiva del valor de *-ly*.

