

The Complementation of the Verb *Decline* from the 18<sup>th</sup> Century to the  
Present Day

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Tämän pro gradu -tutkielman tarkoituksena on tutkia korpuspohjaisesti verbin *decline* komplementaatiota britannianenglannissa 1700-luvun alusta nykypäivään. Vaikkakin tutkimuksen kohteena on verbin *decline* komplementaatio kokonaisuudessaan, erityistä huomiota tullaan kiinnittämään sen verbikomplementteihin (gerundi ja *to*-infinitiivi) ja niiden kehitykseen.

Teoreettisen viitepohjan tutkimukselle tarjoavat *Oxford English Dictionary* ja sen kattava lainauskokoelma, englannin kielen keskeisimmät kieliopit sekä aiempi aiheesta tehty tutkimus. Verbiä tutkitaan myös komplementtien kehitykseen vaikuttaneiden tekijöiden, kuten komplementin merkityksen, sekä muun muassa Rohdenburgin *the Great Complementation Shift* -periaatteen, Allertonin *infinitivitis* -ilmiön, sekä muun muassa Vosbergin esittämien ekstrasemanttisten tekijöiden valossa. Kaksi korpusta toimi lähteinä tutkimuksessa käytetylle datalle: laajennettu *Corpus of Late Modern English* (CLMET) toimi lähteenä vuosille 1710–1920, ja nykyenglannin lähteenä oli *British National Corpus* (BNC), joka kattaa pääpiirteittäin vuodet 1960–1990.

Tutkimus osoittaa, että verbi *decline* on muuttunut syntaktisella tasolla vuosina 1710–1990 usealla tavalla. Alunperin komplementaatiota hallitsevan *NP*-lausekkeen käyttö on vähentynyt huomattavasti ajan myötä, ja sitä voidaankin pitää marginaalisena ilmiönä nykypäivän englannissa. Tutkimuksen pohjalta voidaan myös todeta, että verbi *decline* on myös käytännössä menettänyt 1700-luvulla hallitsevana verbikomplementtina esiintyneen gerundin, jättäen vain *to*-infinitiivin nykyenglantiin. Prepositiokomplementteja esiintyy marginaalisesti kaikkina tutkittuina ajanjaksoina, vaikkakin niiden käyttö lisääntyy jossain määrin kohti nykyenglantia.

Semanttisesti *decline* osoittautuu erittäin vakaaksi eritoten laajennetun CLMET:n kattavan alueen osalta. BNC:stä saatu tieto viittaa mahdolliseen semanttiseen muutokseen nykyenglannin osalta, mutta oletuksen varmistaminen vaatisi aiheen lisätutkimusta.

Asiasanat: *decline*, komplementaatio, korpus, korpuslingvistiikka, verbi

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## 1 Introduction

This thesis aims to provide a diachronic, corpus-based overview of the complementation patterns of the verb *decline* as well as its inflected forms *declines*, *declined* and *declining* in British English from the 18<sup>th</sup> century to the late 20<sup>th</sup> century. This is a corpus-based study, using data retrieved from two electronic corpora: the extended version of the Corpus of Late Modern English and the British National Corpus.

Although the main focus will be on how the syntactic complementation patterns of *decline* as a whole have evolved over the years and how they are distributed, special focus will be placed specifically on the development of its sentential complements. The thesis will also explore the semantic development cycle of the verb, tracing the distribution of its different meanings over the years. The *Oxford English Dictionary* provides the foundation for the semantic examination of *decline*. The examination of the complementation patterns also relies heavily upon the *Oxford English Dictionary*; its multitude of example sentences provide the basis for our examination together with several major grammatical references as well as prior research done on the subject.

One of the interesting features of a number of English verbs is the ongoing competition between sentential complements, the *to*-infinitive and the *-ing* (or the *gerund*) form of the verb. This has been of continuous interest in recent academic work, reflected by larger development theories such as *the Great Complement Shift*, a sentential complementation development tendency introduced by Günther Rohdenburg (1996).

The examination will first begin with an overview of the research method – corpus linguistics – as well as the two corpora from which the examined data originates. This is followed by a discussion on complements and complementation, focusing on differences in the definition of complements in various sources, as well as a look at how complements differ from adjuncts, and what kind of research has been done on the development of complementation in the past. After this section, we will begin our examination of the verb *decline*, first through data from the *Oxford English Dictionary* dictionaries and various grammars, supplemented by a summary of prior research done on the development of the complementation of the verb *decline*. This is followed by an empirical examination of the

verb using data from corpora. The study will proceed diachronically, beginning with data from the extended Corpus of Late Modern English and then followed by data from the British National Corpus. The final section concludes the research and summarises the results.

## 2 Method and data

Although grammatical and linguistic references such as historical and contemporary grammars are without a doubt vital to a diachronic study of any kind, this kind of study is relatively difficult to conduct without authentic data, which generally comes from a corpus. As has already been mentioned, this study will be a corpus-based one. In this section I will provide an overview of corpus linguistics, as well as briefly introduce the two corpora used in this study.

### 2.1 On corpus linguistics

Countless, slightly differing definitions of *corpus linguistics* have been presented by different linguists over the years; in my opinion, one of the most fundamental definition of the term is given by Johansson, who specifies it simply as “the study of language through corpora” (1995, 19). Corpus linguistics is generally regarded as a methodology rather than a theoretical approach to language study; this is a view shared by theoretical linguists as well as corpus linguists themselves, as the introductory chapter of *Corpus Linguistics* (2007, 1–2) states. A reason for this is that corpus linguistics “differs from linguistic subdisciplines such as sociolinguistics and psycholinguistics in that it is not defined by the object of study” (Johansson, 1995, 19).

The use of corpora has only recently gained acceptance and popularity in linguistic circles, although the use of corpora in language research has a long history; for instance, McEnery and Wilson (1996, 2) consider the tradition of corpus linguistics to have begun already in the late 19<sup>th</sup> century. However, it suffered a discontinuity in its development in the 1950s, largely due to the advent of rationalism in linguistic study (McEnery and Wilson, 1996, 4). Greenbaum (1984, 193), for instance, has mentioned that relying on intuitive data, also known as *introspection*, was common in the 1950s and in following decades, and the use of intuitive data over corpus evidence was especially popular in Chomskyan transformative-generative linguistic studies (Johansson, 1995, 19).

Limiting one’s analyses solely to introspection, however, poses several problems; both Greenbaum (1984, 196) and Johansson (1995, 20) have stated that introspection may



be biased towards some point that the linguist wants to prove, in which case introspection provides a way to overgeneralise in order to get neat results. Corpora, on the other hand, also provide means to comment on the *frequency* of a given pattern or construction – in other words, we can extract statistically provable evidence of a linguistic phenomenon, which, as McEnery and Wilson (1996, 12) mention, may be verified and observed by all who care to examine it.

Before completely embracing the introspection versus corpus evidence dichotomy, it should be noted that corpora, as any other type of medium, are susceptible to errors, and thus, corpus use should also be seen as a “a question of corpus *plus* intuition, rather than of corpus *versus* intuition” (Leech, 2002, 4).

## 2.2 Defining a corpus

In its original definition, the term ‘corpus’ means ‘body’ in Latin, referring to a body of text of some sorts. In modern linguistic use, however, the term is somewhat more specific. Biber et al. (1998, 12) specify that it is “a large and principled collection of natural texts”, further emphasising that it is not just any collection of texts but one that “seeks to represent a language or some part of a language” (ibid., 246). Nowadays the term also entails machine-readability, as essentially all contemporary linguistic corpora are designed to be examined with the help of a computer and suitable software.

Biber et al. (1998, 246) continue that the representativeness of a corpus restricts the kinds of research questions which can be addressed and the generalizability of the results obtained from the corpus. They point out some principles in corpus design that affect the representativeness of the corpus, including *diversity* and *size*, which I will briefly discuss in the following subsections.

### 2.2.1 *Diversity* in corpora

Diversity, as Biber et al. (1998, 248) mention, is an important element affecting the representativeness of a corpus. As there is no such thing as a ‘general language’, a fully representative corpus, which is somewhat of a paradox, should include texts from all

registers as well as different varieties of a language. They also mention (ibid.) that subject matter is equally important, as the frequency of some words varies with subject matter.

When conducting linguistic research, the diversity of a corpus has to be taken into account when considering what speech register or speech variant the corpus may be considered to represent. To give a simple example of this, a corpus consisting of texts written by American authors would hardly be representative of British English and vice versa.

The two corpora used in this thesis are also somewhat different when it comes to their selection of texts; the extended Corpus of Late Modern English Texts is more or less restricted to prose, whereas the British National Corpus contains a wide variety of texts, and aims to represent a broad range of registers.

### 2.2.2 *Size in corpora*

The size of a corpus not only concerns the number of words a corpus should include; it also concerns how many individual texts should be included in the corpus. Biber et al. (1998, 249) note that enough texts should be included in each individual category within a corpus, be it fictional male writers or legal documents.

The actual required size of a corpus largely depends on what one is researching. As Biber et al. (1998, 249) also point out, rarer linguistic phenomena require a larger corpus in order for the results to be considered representative. However, they also emphasize that “for all kinds of research, it is important to realize that size cannot make up for a lack of diversity” (ibid.).

One fundamental problem related to the size of a corpus, or even a sub-corpus of a corpus, is that different corpora tend to be compiled using different criteria, producing corpora with different contents and size. This makes it difficult to compare the results obtained from one corpus with those obtained from another corpus. The traditional way of dealing with this problem is to use *normalized frequencies* when comparing the number of tokens from sources of different sizes so that these can be compared with one another with better accuracy. The present study will also employ normalized frequencies

in cases where comparison across corpora is involved. The standard formula for norming frequencies, adopted from Biber et al. (1998, 265) is:

$$\mathbf{frequency\ per\ } n \mathbf{ words} = \left( \frac{\mathit{number\ of\ tokens}}{\mathit{total\ number\ of\ words}} \right) \times n \mathit{ words}$$

The number used as the basis of norming ( $n$  in the equation above) may be chosen according to whatever is convenient considering the size of the corpus or subcorpus in question. However, it has become somewhat of a standard in linguistics to norm frequencies per one million words. This study will also follow this tradition in normalized frequencies.

## 2.3 Presenting the corpora used

This study will employ data from two corpora of British English spanning some 300 years in representativeness. As has already been mentioned several times, these are the extended version of the *Corpus of Late Modern English* and the *British National Corpus*. I will briefly introduce the corpora in this subsection, pointing out possible differences which must be taken into account when conducting linguistic research.

### 2.3.1 The *Corpus of Late Modern English* and its extended version

The Corpus of Late Modern English Texts (CLMET) has been compiled by Hendrik de Smet at the university of Leuven. As described by de Smet (2005, 69–70), it uses texts from two freely available electronic text repositories: *Project Gutenberg* and the *Oxford Text Archive*.

According to de Smet (ibid., 70), the corpus has been subdivided into three 70-year sub-periods: 1710–1780, 1780–1850 and 1850–1920. Each section has been limited to authors born within a specific and equally restricted timeframe in order to increase homogeneity within subperiods and decrease it between subperiods. The differences between subperiods are also accentuated by not allowing any author to be represented in

two subsequent sections of the corpus (*ibid.*). All of the chosen authors are also native speakers of British English, and the maximum amount of text per one author has been set to 200,000 words (*ibid.*, 71). Text genre variation and authorial social background has also been taken into account as much as possible; however, it is still evident that most of the texts are written by higher class male adults of the time (*ibid.*, 71–72).

The extended version of the corpus (which I will refer to as the extended CLMET) incorporates the original, 10-million word Corpus of Late Modern English Texts (CLMET) in its entirety, but has been expanded by an extra 5 million words of text from three electronic archiving projects: *Project Gutenberg*, the *Oxford Text Archive* and the *Victorian Women Writers project*.<sup>1</sup>

It is apparent that the first part of the corpus (1710–1780), which is 3.0 million words in size, is somewhat smaller than the two following parts (1780–1850, 5.7 million words and 1850–1920, 6.3 million words).

All three parts of the extended CLMET will be used in this thesis in order to acquire a comprehensive diachronic aspect to the potential development of the complements of *decline*.

### 2.3.2 The *British National Corpus*

Present-Day English data is provided by the British National Corpus (henceforth the BNC). As is described in the *Reference Guide for the British National Corpus* (Burnard, 2000), the corpus consists of approximately 100 million words written and spoken British English. The spoken component constitutes about 10 per cent (10 million words) and the written component about 90 per cent (90 million words).

The BNC represents late 20<sup>th</sup> century English, ranging from the 1960s to the 1990s. However, there is a heavy emphasis on material ranging from 1984 to 1994, which covers approximately 91.7 per cent of all the texts in the BNC (*ibid.*). Consequently, the present study should not be regarded as a comprehensive, diachronic study, as there is a 40-year

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<sup>1</sup><http://perswww.kuleuven.be/~u0044428/clmetev.htm>

gap from the 1920s to the 1960s, in addition to the first two decades of the BNC being somewhat underrepresented.

As was already pointed out in section 2.2.1, one important difference between the extended CLMET and the BNC is that the BNC contains a relatively wide variety of different text registers, whereas in the case of the extended CLMET, the range of texts is narrower. For a verb such as *decline*, the use of which varies greatly across text registers such as prose versus informative writing, this matter should be taken into account when comparing and interpreting data obtained from the two corpora.

### 3 Shedding light on complementation

One of the problems that arises in the study of complementation is that the definition of terms such as ‘complement’ and ‘complementation’ varies between different sources. In addition to this, the line between what is a complement and what is an adjunct is a vague one; especially views on whether an obligatory adjunct is a complement is a matter of debate.

In this section we will examine the line between complements and adjuncts with the help of grammatical references, and clarify what the definition of ‘complement’ and ‘adjunct’ will be in the present study. In addition to this, various tests with which it is possible to distinguish complements from adjuncts will be introduced.

#### 3.1 Valency theory and complementation

A few clashing definitions of what is *complementation* exist within different grammatical references. The bulk of what will be used in the present study, however, follows the so-called *valency theory* of complementation. The theory, as stated in Somers (1987, 5), Herbst (1999, chap. 1.2) and Herbst et al. (2004, xxiii) for instance, originates from Lucien Tesnière’s work on the dependency grammar theory, and has only recently gained ground in the field of English linguistics. The first English valency model was developed by Emons (1974 and 1978), and further work was done by Matthews (1981), Allerton (1982) and Herbst (1983 and 1988) (Herbst et al., 2004, xxiii). According to Somers (1987, 4), it has been more or less ignored until the 1980s. At least one major grammar, that of Huddleston and Pullum (2002), describes complements and complementation mostly in accordance with the principles presented by the valency theory of complementation.

Valency theory places the verb in the central role of a grammatical structure. The verb determines the number of additional elements it requires to form a grammatical sentence. These elements required by the verb to complete its meaning are referred to as *complements*, or *actants* in Tesnière’s work (Herbst 1999, chap. 2.1.1; Somers 1987, 5). Those elements that do not belong to its valency are referred collectively as *adjuncts*, or *circumstantials* in Tesnière’s terminology (Somers, 1987, 6).

Although there are some notable differences, the valency theory of complementation is mostly compatible with Quirk et al.’s definition of ‘complementation’, which is “the function of a part of a phrase or clause which follows a word, and completes the specification of a meaning relationship which that word implies” (1985, 65). They continue that complementation may be obligatory or optional on the syntactic level, and that it overlaps with functions such as adverbials and modifiers. (ibid.). However, it should be noted that their use of the terms ‘complement’ and ‘adjunct’ differs from that of the valency theory of complementation. I will introduce this in the subsections below.

### 3.2 Defining complements and adjuncts

As was noted in section 3.1 above, the elements within a grammatical construction may be divided into two categories – *complements* and *adjuncts* – according to their relationship with the verb. Consider, for instance, the following examples provided by Herbst (1999, chap. 2.1.1) (the bracketed letter has been capitalized):

- (1) a. Newlyn lies at the western end of Mount’s Bay.  
 b. \*Newlyn lies.  
 c. \* [L]ies at the western end of Mount’s Bay.
- (2) a. By the 1880s there was a well-developed tourist industry in west Cornwall.  
 b. \* By the 1880s was a well developed tourist industry in west Cornwall.  
 c. \* By the 1880s there was in west Cornwall.  
 d. There was a well developed tourist industry.
- (3) a. By the turn of the century Newlyn had changed.  
 b. Newlyn had changed.  
 c. \* By the turn of the century had changed.

Example (1a) above illustrates that the verb *lie* requires the presence of two complements, a noun phrase (subject) and a prepositional phrase; the removal of either of these elements, illustrated by (1b) and (1c), makes the sentence ungrammatical. (2a–d) illustrate the use of the verb *be*, which also requires two elements (two noun phrases) to retain its grammaticality. The verb *change*, seen in examples (3a), (3b) and (3c), requires only the subject noun phrase.

It should be noted that the elements left over are not necessarily adjuncts; they may also be optional complements.

As was mentioned earlier, a number of differences between the definition of ‘complement’ and ‘adjunct’ exists between grammars. An example of somewhat complicated use of terminology may be found in Quirk et al., whose definition of ‘complement’ does not directly relate to ‘complementation’, as it refers exclusively to two clause structure elements: ‘subject complement’ and ‘object complement’, which apply “some attribute or definition” to the subject or object (Quirk et al., 1985, 55). The following examples (4) and (5), given by Quirk et al., illustrate the subject complement and the object complement, respectively.

(4) The country became a separate nation. (subject complement)

(5) Most people considered Picasso a genius. (object complement)

However, Quirk et al. (1985, 55) also note that some linguists make a broader use of the term ‘complement’, which includes complements, objects and obligatory adverbials, as it is used in the valency theory of complementation. I will also use the term ‘complement’ in this broader sense.

Adjuncts, unlike complements, are not selected or determined in form by the verb. However, adjuncts are not entirely freely addable, as their occurrence still requires semantic compatibility (Herbst, 1999, chap. 2.1.1). The adjunct status of any expression is also not inherent but rather determined by its environment; an element which serves as an adjunct in one context may be a complement in another (Somers, 1987, 9).

Quirk et al. (1985, 55) note that obligatory adverbials, which we regard as complements in this study, are largely restricted to those indicating position and direction. They also note a similarity between subject complements and object complements and obligatory adverbials, which are also divided into subject related and object related ones; these two types are illustrated by examples (6) and (7) from Quirk et al., respectively:

(6) He stayed in bed. (subject adverbial)

(7) They kept him in bed. (object adverbial)



### 3.3 The classification of complements

Herbst et al. (2004, xxv) classify complements in three respects: according to their *formal and functional* properties, their *semantic and lexical* properties and their *obligatoriness*. These will be discussed in the following subsections.

#### 3.3.1 Formal and functional properties

The formal and functional properties of complements consist of three criteria. The first of these is the *functional label* of the complement (for instance, subject or object). The second criterion covers the *formal categories* of such complements (for instance, noun phrase, adjective phrase or prepositional phrase). The third criterion the *position* of a complement (for instance, whether the complement is the first or the second *NP* in a di-transitive construction). (Herbst et al., 2004, xxv-xxvi). These properties are one of the criteria by which a verb chooses its complement.

Huddleston and Pullum (2002, 219–220) use the term *licensing* when referring to this relationship between the verb and the form and function of its complement; in order to have a specific type of complement (for instance, a direct object), it has to be ‘licensed’ by an appropriate verb.

In some cases, as Herbst et al. (2004, xxvi) note, there may be vagueness between the verb and its complement, which also produces difficulties in determining the actual form of the complement. One such problem area is verbs combining with prepositional phrases. Whereas a sentence such as “We spoke about painting” are in some grammars analysed as a so-called *prepositional verb* (a complex verb consisting of a verb + preposition), valency theory considers the preposition as a part of the complement, not as part of the predicator. However, on the same page, Herbst et al. do admit that there is some justification in separating the noun phrase and the preposition: firstly, in passivization, the noun phrase is separated from the preposition (for instance, “Painting was spoken about”). Secondly, according to Herbst et al. (2004, xxvi), prepositions can also combine with *-ing* clauses, *wh*-clauses and *wh to*-infinitives. Consequently, they suggest that prepositional phrases

could be seen as “complex complements consisting of more than one element” (Herbst et al., 2004, xxvi).

### 3.3.2 Semantic and lexical properties

Although Herbst et al. have excluded a comprehensive semantic property analysis from their *Valency Dictionary of English* due to the difficult nature of characterising the semantic roles of verbal complements, they do admit that “a comprehensive valency description must, however, specify not only the formal properties of the complements but also their semantic and collocational properties” (Herbst et al., 2004, xxviii). Firstly, these include the meanings of the complements, especially the difference or parallels between different complementation patterns of the same verb; secondly they specify which lexical items can or cannot occur as a particular complement (Herbst et al., 2004, xxix).

Herbst et al. point out that some valency models have employed semantic properties by specifying semantic features of the complements, such as ‘+/-Animate’ or ‘+/-Human’ (Herbst et al., 2004, xxix). Another approach, also used to some extent in Herbst et al., is to include semantic role labels used in many grammars such as *Agent*, *Beneficiary*, *Experiencer* and so on. The thematic role approach is also exemplified in Huddleston and Pullum (2002, 228–233), for instance.

### 3.3.3 Obligatoriness of complements

The third important attribute that has to be assigned to complements is their obligatoriness. There may be different reasons why a given complement is obligatory. Herbst et al. (2004, xxx-xxxii) divide these into three types of obligatoriness. Firstly, there may be a *communicative necessity*, meaning that without the complement in question the sentence would become nonsensical; secondly, *structural necessity* may be involved, meaning that certain types of clauses require the presence of certain elements on a syntactic level; finally, there may be a *necessity at the level of valency*, meaning that verbs differ in the number of arguments they require.

Essentially, the analysis presented by the valency theory of complementation produces a continuum ranging from restricted *obligatory complements* to more relaxed *optional complements* (which may be present in a construction, for instance, only because of communicative necessity) to the essentially freely addable *adjuncts*.

### 3.4 Distinguishing complements from adjuncts

Somers (1987) identifies a number of tests which may be used to determine the complement/adjunct status as well as obligatoriness/optionality status of an element. These will be briefly introduced in this section.

The *elimination test*, conceived by Helbig and Schenkel and described in Somers (1987, 12–13) involves the elimination of an element to determine whether the remaining sentence remains well-formed. This tests the obligatoriness of the eliminated element. We have already seen examples (1a–c), (2a–d) and (3a–c) in section 3.2, which illustrate the elimination test; I will include one additional set of examples from Somers (1987, 12–13):

- (8) a. He put the book under the table.  
 b. \*He put the book.  
 c. \*He put under the table.  
 d. \*He put.

As may be seen from examples (8a–d) above, the underlined element of (8a) in its entirety is obligatory as it is not omissible.

The *extraction method* by Grebe (Somers, 1987, 13) is similar to the elimination test, but its purpose is to test whether the removal of an element changes the meaning of the sentence (which would suggest that the removed element is a non-obligatory complement). The following example is given by Somers, and it shows that the verb *plough* changes its meaning when an element is extracted:

- (9) a. The farmer ploughs his field.  
 b. The farmer ploughs.

A disputed test for distinguishing between optional complements and adjuncts is the *backformation test*, which, similarly to the *elimination test*, is suggested by Helbig and

Schenker (Somers, 1987, 14). This involves rephrasing the tested elements as a relative clause. If the resulting sentence is acceptable and does not change its basic meaning, the backformed element is an adjunct. Consider, for instance, the following examples from Somers:

- (10) a. He visited her in Berlin.  
 b. He visited her, when he/she stayed in Berlin.
- (11) a. My friend lives in Dresden.  
 b. \*My friend lives, when he is in Dresden.

A form of ‘substitution test’, originally suggested by Anderson in 1973, is discussed as a possible test for the optional complement/adjunct distinction. This relies upon the idea that the “morphosyntactic realizations of certain elements can be said to be strongly ‘governed’ by the choice of the verb” (Somers, 1987, 15), and could be demonstrated by replacing a verb with a quasi-synonym, which would result in an ungrammatical sentence because of the differing valency pattern (essentially revealing that the element causing ungrammaticality is a complement of the original verb). The following example is from Somers (1987, 15):

- (12) a. I have been waiting for my friend for two hours.  
 b. \*I have been expecting for my friend for two hours.  
 c. I have been expecting my friend for two hours.

The aforementioned test obviously causes problems with, for instance, quasi-synonyms with identical valency patterns (in which case the test proves nothing). Again, the example is from Somers (1987, 15):

- (13) a. I was looking for that book yesterday.  
 b. I was searching for that book yesterday.

As Somers (1987, 16) points out, the replacement of a preposition with a near-synonymous alternative may sometimes prove useful in distinguishing complements from adjuncts; as complements have a closer relationship with their heads than adjuncts, it is

easier to replace an adjunct with a near-synonym. Consider the following examples given by Somers:

- (14) a. Inge is arguing with her friend.  
 b. \*Inge is arguing in the company of her friend. (ungrammatical, *with* is a prepositional complement)
- (15) a. Doris is travelling with her friend to Retzbach.  
 b. Doris is travelling in the company of her friend to Retzbach. (grammatical, *with* is a prepositional adjunct)

The final test for distinguishing complements from adjuncts is called the ‘do so’ test, and is suggested by Somers himself (1987, 17–18). This involves using the verbal clause pro-form *do so*, which replaces a verb phrase. Considering that complements are part of the verb phrase’s structure, they are replaced by the ‘do so’ pro-form (and do not exist alongside it). Adjuncts, on the other hand, are outside the verb phrase structure, and therefore are not replaced by the ‘do so’ pro-form (and exist alongside it). The following examples, illustrating an adjunct and a complement, respectively, are from Somers (1987, 18):

- (16) John took a trip last Tuesday, and I’m going to do so tomorrow. (adjunct)  
 (17) \*Harold drives a Volkswagen and Rod does so a Lancia. (complement)

While there appears to be no absolutely foolproof complement/adjunct test, the combination of the tests presented above, together with information from valency dictionaries and other references, should provide us with a relatively good way of identifying complements.

### 3.5 Factors affecting sentential complement selection

Before beginning the examination of the verb *decline*, this section briefly introduces a number of tendencies which may affect the selection of sentential complements such as the *to*-infinitive and the *-ing* form. Perhaps the most important of these is the semantic distinction of the gerund or the *-ing* form and the *to*-infinitive and its relation to the matrix verb. We may also note two phenomena which affect sentential complement selection that

have been noted in related literature: the *Great Complement Shift* and a phenomenon David Allerton refers to as *infinitivitis*.

### 3.5.1 The semantic distinction between the gerund and the *to*-infinitive

A number of verbs which take sentential complements tend to take their verbal complement in a specific verb form (such as the infinitive or the gerund form). Although to some extent the infinitive and the gerund are considered interchangeable, there are a number of differences between the two forms which occasionally may foster a preference for one of these forms in sentential complement structures.

One of the main differences between the *to*-infinitive and the gerund is that only the *to*-infinitive is regarded as purely verbal in nature. The gerund, or the *-ing* form has originally developed from an abstract noun of action to an increasingly verbal construction from Middle English onwards, as is noted by, for instance, Fanego (1996a, 98). Thus, it is apparent that out of the two constructions, the gerund resembles a noun phrase more than the infinitive, although either of these may essentially replace a noun phrase, as is pointed out by, for instance, Huddleston and Pullum (2002, 1252–1255). Allerton agrees with the notion that the gerund ‘is slightly more nominal and less verbal in character than the infinitive’ (1988, 11).

It has also been mentioned that the gerund and the infinitive have become increasingly specific in their semantics over time. Vosberg (2003a, 306) brings up Bolinger’s idea that “the infinitive marker has been degrammaticalized or resemanticized” to express purpose and future orientation. The gerund, on the other hand, was not originally bound to past nor future reference. This is more or less repeated by Fanego (1996b, 31), who discusses retrospective verbs, quoting Quirk et al. (1985):

The infinitive construction indicates that the action or the event takes place after (and as a result of) the mental process denoted by the verb has begun, while the reverse is true for the participle construction, which refers to a preceding event or occasion coming to mind at the time indicated by the main verb. (Fanego, 1996b, 31)

Fanego (*ibid.*) demonstrates the difference between the temporal relationship of the matrix verb and its complement in the case of the gerund and the *to*-infinitive form. Her examples are presented below:

- (18) a. I remembered doing it.  
 b. I remembered to do it.

Example (18a) illustrates that in the case of the gerund, the action denoted by the complement ('do') takes place before the event denoted by the matrix verb ('remember'), whereas in the case of the *to*-infinitive complement, the action denoted by the matrix verb precedes that denoted by its complement.

As may be expected, other grammarians have also pointed out other semantic differences between the *to*-infinitive and the gerund. Allerton (1988, 21) summarizes a number of semantic nuances which the *to*-infinitive and the gerund may occasionally denote. These are given in the following table:

Table 1: Semantic between gerunds and infinitives

<b>INFINITIVE</b>	<b>GERUND</b>
infrequent activity	regular activity
intermittent activity	continuous activity
interrupted activity	continuing activity
uncompleted activity	completed activity
contingent / possible event	event presented factually
particular time and place	neutral time and place
specific subject	non-specific subject
more verbal character	more nominal character

Let us examine some of the distinctions mentioned in the table above more closely. As is apparent from the first few rows of the table, the gerund tends to denote regularity and continuity, whereas the infinitive occasionally indicates infrequent and non-continuous activities. Consider, for example, the following illustrations by Allerton (*ibid.*, 13):

- (19) a. It cheered him up to work in the garden.  
 b. Working in the garden cheered him up.

As we may observe, example (19a) is more easily interpreted as a single, infrequent event than (19b), which very likely refers to “an event repeated just a few times on odd occasions” (Allerton, 1988, 13), or to a repeated event which is regular or habitual in nature (*ibid.*, 13–14).

Another one of Allerton’s differences between the gerund and the infinitive may be seen in the following example pair, which is also from him (*ibid.*, 16):

- (20) a. Mary started to read.  
 b. Mary started reading.

In the examples above, the gerund refers to a continuous activity or process, whereas the infinitive strongly suggests that the process was interrupted at some point.

Allerton (*ibid.*, 18) also notes that the gerund may occasionally be preferred when referring to completed actions whereas the infinitive is more uncomplete in nature. This is illustrated in the following example pair (which is also from Allerton):

- (21) a. Mary tried to change the fuse.  
 b. Mary tried changing the fuse.

As Allerton (*ibid.*) notes, the gerund refers generally to a complete activity of changing the fuse. The infinitive, on the other hand, does not give the same impression of a completed activity, but rather an uncompleted one (perhaps one in which the person who was changing the fuse was forced to interrupt before he or she could finish the job).

Allerton (*ibid.*, 13) also illustrates that the infinitive is more natural in sentences involving hypothetical eventuality in the future, whereas the gerund is more natural when referring to a factual event in the past. Let us examine the following examples given by him, both of which are acceptable although one of them may sound unnatural to native speakers:



- (22) a. It would be tactless to mention the accident.  
 b. ? Mentioning the accident would be tactless.

According to Allerton, example (22b) is possible, although it seems unnatural as hypothetical events prefer the infinitive.

In some cases, the infinitive occasionally may refer to a specific time or situation, whereas the gerund is less neutral and non-specific. The following pair of examples from Allerton (*ibid.*, 19):

- (23) a. John was afraid to interrupt.  
 b. John was afraid of interrupting.

Although the two examples are semantically rather close, Allerton notes (*ibid.*, 20) that in cases where we wish to refer to a specific situation we tend to prefer the infinitive construction such as (23a) above.

As we have seen above, there are a number of semantic factors which may affect complement selection in sentential complements. However, it should be emphasized that these semantic differences are tendencies rather than rules, and consequently, may surface only occasionally.

### 3.5.2 The *Great Complement Shift*

In discussing changes in English complementation, one noteworthy trend that involves the re-arrangement of the system of complementation is sometimes referred to as the *Great Complement Shift*. This term, introduced by Günther Rohdenburg (2006, 143), involves an increasing establishment of the *-ing* complement pattern at the expense of finite clauses as well as *to*-infinitive complements, dating from the 17<sup>th</sup> century onwards.

The trend coincided with the development of the *-ing* form from an abstract noun of action to an increasingly verbal construction from Middle English onwards, as is noted by, for instance, Fanego (1996a, 98). According to Fanego (1996b, 57), the spread of the verbal *-ing* form began with negative implicative verbs around the 15<sup>th</sup> century onwards, after which the newly established verb form spread to other types of verbs, as well.

As *decline* also includes sentential patterns in its choice of complementation, I will be looking into how the verb's complement development looks considering the *Great Complement Shift*.

### 3.5.3 *Infinitivitis*

*Infinitivitis*, as described in Allerton (1988, 11), is the frequent overuse of the *to*-infinitive, especially in cases in which unaffected speakers would prefer the *-ing* form. Allerton (ibid.) states that British English makes a somewhat clear distinction between the infinitive and the gerund form, which, however, tends to be lost sometimes in formal written English, American English and amongst foreign learners of English. The differences between the gerund and the infinitive listed by Allerton have been discussed above in section 3.5.1, which includes a table adopted from him illustrating some of the possible differences between the two constructions. The features presented in the table are semantic nuances which are easily lost due to infinitivitis.

### 3.5.4 Extractions, insertions and the *horror aequi*

This subsection briefly introduces three extra-semantic factors affecting complement selection which should be considered, in addition to the factors mentioned in the subsections above. They are *extractions*, *insertions* and the *horror aequi*.

Vosberg (2003a, 307) discusses the effects of extractions on sentential complement selection, noting that they produce so-called filler-gap dependencies, which are psycholinguistically difficult to process. He therefore introduces the *Extraction Principle*, which is as follows:

In the case of infinitival or gerundial complement options, the infinitive will tend to be favoured in environments where a complement of the subordinate clause is extracted (by topicalization, relativization, comparativization, or interrogation etc.) from its original position and crosses clause boundaries. (Vosberg, 2003a, 308)

Vosberg continues (ibid.) that the establishment of the gerund complement must have been substantially delayed in contexts involving various kinds of extractions.

Vosberg (2003b, 210) has also commented on the effects of discontinuous constructions, such as *insertions*, in which an intervening element is present between the matrix verb and its complement, constitute a cognitively complex situation. In these situations the more explicit variant (in this case, the more verbal *to*-infinitive) tends to be favoured. This tendency also increases with longer insertions.

The *horror aequi* principle is described by Rohdenburg as “the universal tendency to avoid the (near-)adjacency of identical grammatical structures” (Rohdenburg, 2003, 15). This essentially predicts that the complement following a matrix verb in a *to*-infinitive form would be the gerund due to the tendency to avoid two consecutive *to*-infinitives. Conversely the complement of a matrix verb in the gerund form would be expected to be in the *to*-infinitive form.

## 4 Setting the stage: background on the verb *decline*

Before we begin to wade through the diachronic corpus data, we should devote a section to examine the verb *decline* through grammatical and lexicographical references. We will begin by looking at a dictionary definition of the word, summarising patterns present in large grammars, and exploring what previous research has been done on the verb.

### 4.1 Exploring *decline* in the *Oxford English Dictionary* and grammars

In order to set the stage for our in-depth examination of the verb *decline*, we should examine how the verb is presented in a large dictionary such as the *Oxford English Dictionary* (henceforth the *OED*). One of the advantages of this dictionary is its extensive collection of quotations, which, although to some extent may overtly bring out rare or obsolescent senses of the verb while undermining the dominant senses, provides us with a neat way of preparing for what senses and patterns we may encounter in the corpus data. Thus, in a way the quotations in the *OED* actually serve as a pilot study for our corpus-based examination.

The *OED* entry for *decline* consists of a total of five generic sense categories, two intransitive and three transitive ones. Each of these sense categories have subsenses within them, some of which have already fallen out of use.

The following table briefly summarises the five sense categories of *decline*, which will be examined more closely in the following subsections.

Table 2: The five main *OED* senses of *decline*

Sense	Definition
I	To turn aside, deviate.
II	To slope, incline, or bend downward.
III	To cause to turn aside, to avert; to turn aside from, avoid, refuse.
IV	To cause to bend down, descend, or slope.
V	To inflect grammatically.

### 4.1.1 Sense I: *To turn aside, deviate*

The first *OED* sense of *decline* denotes deviation from a path or a goal. It is not used in contemporary English anymore, as we may see from the *OED* entry. The more or less corresponding entry in the *Merriam-Webster Online Dictionary* ('to turn from a straight course: stray'), which is marked as archaic, confirms the *OED* entry. It may be noted that the sense is missing in contemporary grammatical references, such as the *Collins COBUILD Grammar Patterns*, for instance. It is not present in modern learner dictionaries of English, either.

The following table presents a summary of the subsenses within sense I, in which the complementation patterns encountered amongst the *OED* quotations have been identified.

Table 3: Sense I of *decline* with its subsenses and complementation patterns

Subsense	Pattern	Example
<b>1a.</b> To turn or bend aside; to deviate (from the straight course); to turn away. <i>Obs.</i>	from NP	1703 MAUNDRELL Journ. Jerus. (1732) 57 Here we began to decline from the Sea-Coast.
	toward(s) NP	1632 LITHGOW Trav. VI. 291 Againe night we declined towards Gaza.
	on NP	1839 LINGARD Hist. Eng. (ed. 4) XI. 286 The few individuals who ventured abroad..when they met, declined on opposite sides, to avoid the contact of each other.
<b>1b.</b> To turn aside <i>from</i> (anything) so as to avoid it: cf. the trans. sense in 12. <i>Obs.</i>	from NP	1563 FOXE A. & M. 723b, Naturally euey creature declineth gladly from that thyng which goth about to hurt it.
<b>2a.</b> To turn or bend aside; to deviate (from the straight course); to turn away. <i>Obs.</i>	from NP towards NP	1726 tr. Gregory's Astron. I. 331 At London the least Twilight is when the Sun declines from the Equator towards the South 6d 7r.
<b>2b.</b> <i>Dialling.</i> Of a vertical plane: To have an aspect oblique to the prime vertical or to the meridian; to have <u>DECLINATION</u> (sense 9). <i>Obs.</i>	toward(s) NP	1703 MOXON <i>Mech. Exerc.</i> 311 The South Erect Plane, declining more or less towards the East or West.

Subsense	Pattern	Example
<b>2c.</b> Of the magnetic needle: To deviate from the true north and south line; cf. <u>DECLINATION</u> 8.	towards NP	1662 J. DAVIES tr. Olearius' Voy. Ambass. 180 In that place the needle declin'd 22 degrees from the North, towards the West.
	from NP	1674 BOYLE Excell. Theol. II. v. 215 The magnetick needle not onely declining in many places from the true points of N. and S. but..varying in tract of time its declination in the self-same place.
<b>3a.</b> <i>fig.</i> To turn aside in conduct; esp. to swerve or fall away (from rectitude, duty, allegiance, instructions, etc.). <i>Obs.</i>	from NP	1728 NEWTON Chronol. Amended vi. 352 They declined from the worship of this Eternal Invisible God.
<b>3b.</b> To turn aside from the subject, in speaking or writing; to digress. <i>Obs.</i>	∅	1544 T. PHAER Regim. Lyfe (1560) Nvb, Here I have declined by occasion, but now to our intent.
<b>3c.</b> Of things: To diverge, deviate (in character, excellence, etc.) <i>from</i> . <i>Obs.</i>	from NP	1632 J. HAYWARD tr. Biondi's Eromena 174 Nor doth thy last alleaged excuse..decline any whit from thy other reasons.
<b>4.</b> <i>fig.</i> To incline or lean <i>to</i> . <i>Obs.</i>	to NP	1671 tr. Palafox's Conq. China xi. 230 It was quickly perceived to which side the victory declined.

We should note that the *OED* there were examples not present in the table in which an analogous adverb was used instead of *towards NP*. These included cardinal directions (for instance, *declining East* in sense 2b) or adverbs derived from them with the suffix -ward(s), such as *declinith southward* in sense 2c (the entry is from 1391, which explains the orthography). These were regarded as belonging within the semantic range of the *towards NP* (see, for instance, Quirk et al. 1985, 438). But let us now proceed to examine the complementation patterns.

Essentially the entire first sense category consists of different kinds of prepositional complements denoting either movement or position; in terms of semantic roles, the sense appears to require either a Goal, as is the case with *declining to* or *towards* somewhere, a Source, as in *declining from* somewhere, or a Location, as in *declining on opposite sides*. These prepositional elements appear to be semantically obligatory, as without them, the

verb would either be misinterpreted or become ambiguous. Consider, for instance, the following example from the table above:

- (24) At London the least Twilight is when the Sun *declines from the Equator towards the South 6d 7l*.

If we were to take all the prepositional phrases away, the sentence itself would still be grammatical, but it would be interpreted as ‘to descend’ or ‘to set’ rather than ‘to turn away’. It should be noted, however, that only one of the prepositional phrases need be present in order for the pattern to assume this sense. Thus, we may consider the other prepositional phrase as either an optional complement or perhaps even an adjunct (as it essentially fulfils the role of an adjunct by providing additional rather than obligatory information).

An exception to the prepositional complementation tendency in this category is sense 3b, essentially meaning ‘to divert from a topic or a subject’. This construction appears to be monovalent, requiring only the subject.

An interesting sidenote we should make is that after presenting sense 4, the *OED* includes an additional, unnumbered entry without any quotations, ‘Not to consent or agree (to do something); to refuse. See sense 13.’ It is not impossible to consider the sense of ‘refusing’ to be partly intertwined with the sense of ‘deviating from something’, or perhaps even to have originated from it.

#### 4.1.2 Sense II: *To slope, incline, or bend downward*.

The second of the two intransitive senses of *decline* involves specifically downward inclination or sloping, unlike the previous sense, which did not imply a specific direction. This sense has not become obsolescent, which is reflected by the fact that it is also present in several other references besides the *OED*, and a few additional notes may also be made by referring to these external references. But let us begin by summarising the complementation patterns encountered amongst the *OED* quotations:

Table 4: Sense II of *decline* with its subsenses and complementation patterns

Subsense	Pattern	Example
<b>5.</b> To deviate from the horizontal or vertical position; to have a downward inclination, to slant or slope downward.	∅	1843 PRESCOTT Mexico (1850) Table land which..gradually declines in the higher latitudes of the north.
<b>6.</b> To bend down, bow down, droop.	∅	a1612 DONNE Biathan. (1644) 190 Our heads decline after our death by the slackness of the sinews and muscles.
	from NP	1891 T. HARDY Tess. I. 10 Declining from his sitting position..[he] stretched himself..among the daisies.
	to NP	1632 LITHGOW Trav. II. 49 The wearisome creatures of the world declining to their rest.
	towards NP	1749 FIELDING Tom Jones VI. viii, His eyes were eagerly fixed on Sophia, and hers declining towards the ground.
<b>7a.</b> To come down, fall, descent, sink. <i>Obs.</i>	on NP	1602 SHAKES. Ham. II. ii. 500 His Sword Which was declining on the Milkie head of Reuerend Priam, seem'd i' the air to stick.
<b>7b.</b> To descend in lineage. <i>Obs. rare.</i>	∅	1598 YONG Diana 98 On th' one side Dukes most excellent decline, And from the other scepter, throne and crowne.
<b>8a.</b> Of the sun or other heavenly body: To descend in the sky after culmination; to sink towards setting.	∅	1837 DISRAELI Venetia I. ii, The sun was beginning to decline.
<b>8b.</b> <i>transf.</i> Said of the day (evening, etc.), also <i>fig.</i> of one's life: To draw towards its close. (Often with mixture of sense 10.)	∅	1871 R. ELLIS Catullus lxi. 94 The day declines. Forth, fair bride.
	in NP	1704 F. FULLER Med. Gymn. (1711) 108 When People decline in Years, there are some extraordinary Means requisite.
<b>9.</b> <i>fig.</i> To fall morally or in dignity, to sink (to evil courses, etc., or to an unworthy object). (Now only <i>literary</i> , and after Shakes.)	to NP	1579 FULKE Heskins' Parl. 485 Many of the elect do decline to vices.
	upon NP	1602 SHAKES. Ham. I. v. 50 Oh Hamlet, what a falling off was there, From me, whose loue was of that dignity..and to decline Vpon a wretch, whose Naturall gifts were poore To those of mine.
	from NP	1708 W. TAYLOR Behmen's Theos. Philos. xx. 30 He declines..from his office of presiding over the whole, to be the head of a party.
	on NP	1842 TENNYSON Locksley Hall 43 Having known me—to decline On a range of lower feelings and a narrower heart than mine!



Subsense	Pattern	Example
10. <i>fig.</i> To fall off or fail in force, vigour, or vitality; to decay, wane, diminish, decrease; to fall from prosperity or excellence, to deteriorate.	∅	1818 JAS. MILL Brit. India II. V. viii. 675 The net territorial revenues..instead of increasing, had actually declined.

Some of the example patterns presented above, such as *upon NP* and *on NP* in sense 9, are considerably poetic stylistically, and thus, may also be disputable in terms of complementation patterns.

Similarly to the ‘deviating’ sense I discussed in the previous section, there appears to be a considerable number of prepositional complements present in this category. Also similarly to sense I, these have the tendency to do with the semantic roles of Source (*from NP*, *in NP*), Goal (*towards NP*, *to NP*, *upon NP*), or Location (*on NP*).

However, it should also be noted that the sense category II appears to be more flexible when it comes to constructions without complements: six of the subsenses appear to be willing to accept the complementless pattern. The patterns which appear to be the most dependent on prepositional complements are figurative (sense 8 in reference to one’s life drawing to a close, and sense 9, which is also only literary and after Shakespeare).

As was already mentioned, this sense of *decline* is presented in several grammatical references. In Herbst et al. (2004, 212–213) there is the meaning “reach a lower level or standard” (ibid., 213), corresponding roughly with subsense 10 of the *OED*. They provide the following additional patterns, which are closely related to the patterns we have already found amongst the *OED* quotations:

- (25) Retail sales *declined by three per cent.* (*decline + by NP [quantity]*)
- (26) Council house sales, however, *will decline from their current level of £ 125,000 per year* because many of the best homes have gone and two thirds of those remaining in council housing are on housing benefit. (*decline + from NP*)
- (27) Such societies may *decline into criminalisation or neo-authoritarianism or worse.* (*decline + into NP*)
- (28) Mr Srinivasan believes the birth rate *will decline to perhaps 24 per thousand* by the end of the decade. (*decline + to NP*)

- (29) Investments *will decline towards replacement investment levels*. (*decline + towards NP*)
- (30) Although the number of children aged under 14 will increase from 3.84 million to 3.96 million, as a proportion of the population they *will decline from 22 per cent to 21 per cent*. (*decline + from NP + to NP*)

Herbst states that the complement patterns are optional, more or less confirming what has already been found in the *OED*. In addition to this, Herbst et al. regard the status of the *by NP[quantity]* complement as marginal, since it is possible to analyse the construction as an adjunct. We may confirm this with, for instance, a ‘do so’ substitution test presented in section 3.4, which appears to yield an acceptable, albeit a rather artificially sounding result:

- (31) Imports *declined by three per cent* and exports did so by five percent.

It should also be noted (although it is not explicitly pointed out by Herbst et al.) that examples (26), (28) and (29), all of which essentially contain complements of quantity, resemble the *decline + by NP[quantity]* construction to some extent.

The *in NP* complement construction related to this sense category is also discussed in Huddleston and Pullum (2002, 321); they note that the oblique noun phrase in the bivalent *in NP* construction may be incorporated into the subject of a monovalent construction, again illustrating the optionality of those complements which are prepositional in nature. Consider, for instance, the following examples, which are my own:

- (32) a. Patient visits *declined in number*. (bivalent *in NP* construction)  
 b. The number of patient visits *declined*. (monovalent construction)

#### 4.1.3 **Sense III: *To cause to turn aside, to avert; to turn aside from, avoid, refuse.***

The third sense category of *decline* may perhaps be regarded as a transitive version of sense I. This sense, unlike sense I, is still in use and involves an Agent or a Cause that causes the aversion. Let us look at the complementation patterns:

Table 5: Sense III of *decline* with its subsenses and complementation patterns

Subsense	Pattern	Example
<b>11a.</b> To turn aside ( <i>lit.</i> and <i>fig.</i> ): To avert. <i>obs.</i>	NP	1750 JOHNSON Rambler No. 31 ¶5 Subterfuges and evasions are sought to decline the pressure of resistless arguments.
<b>11b.</b> To turn (a person) aside from or to a course of conduct, from duty, etc.; to divert. <i>Obs.</i>	NP	1658 SIR H. SLINGSBY Diary (1836) 207 Sundry disputes with sinewy Arguments to decline my opinion.
	NP from NP	c1634 STRAFFORD in Browning life (1890) 129 This allegiance shall not decline me from those more sovereign duties I owe my master.
	NP to NP	1617 BEAUM. & FL. Valent. III. i, Nor any way decline you to discredit.
<b>11c.</b> In physical sense: To cause to deviate, deflect (from a straight course, etc.) <i>Obs.</i>	NP	1646 SIR T. BROWNE Pseud. Ep. II. ii. 59 Contrary poles or faces attract each other, as the North and the South, and the like decline each other, as the North and the North.
	NP from NP	1692 BENTLEY Boyle Lect. ii. 71 A Byas, that may decline it a little from a straight Line.
<b>11d.</b> To withdraw oneself, turn away. <i>Obs.</i>	NP	a1635 NAUNTON Fragm. Reg. (Arb.) 49 Rawleigh..undertook a new peregrination, to leave..the Court..and by declining himself, and by absence, to expell his, and the passion of his enemies.
<b>12.</b> To turn aside from; to get or keep out of the way of; to avoid, shun. <i>Obs.</i> (or merged in 13).	NP	1761 New Companion Fest. & Fasts xx. §2. 177 When the fire of persecution breaks out among us, we have our Lord's permission by all prudent and honourable methods to decline it.
<b>13a.</b> To turn away from (anything suggested or presenting itself) as from a thing which one is unwilling to take up, undertake, or engage in; to withhold oneself from; not to consent to engage in, practice or do. Now only with nouns of action: to decline a <i>discussion</i> , <i>contest</i> , <i>challenge</i> , etc.: cf. c.	NP	1848 MACAULAY Hist. Eng. xiv, They far more readily forgive a commander who loses a battle than a commander who declines one.

Subsense	Pattern	Example
<b>13b.</b> Not to consent or agree to doing, or to do (something suggested, asked, etc.); hence, practically = REFUSE: but without the notion of active repulse or rejection conveyed by the latter word, and therefore a milder and more courteous expression. (Constr. <i>vbl. n.</i> , <i>inf.</i> ; also <i>absol.</i> or <i>intr.</i> )	-ing	1865 CARLYLE <i>Fredk. Gt. VI. XVI. xv. 314</i> , I declined satisfying his curiosity.
	to-inf	1751 JOHNSON <i>Rambler No. 143 14</i> Provided he declines to tread in their footsteps.
	∅	Mod. Shall we accept or decline?
<b>13c.</b> Not to accept (something offered); implying polite or courteous refusal.	NP	1838 THIRLWALL <i>Greece IV. xxxiii. 312</i> Ariæus declined the offer of the Greeks.
<b>13d.</b> <i>Chess.</i> To refuse to take a piece or pawn offered in (a gambit).	-ing	1833 W. LEWIS <i>Progr. Less. Chess (ed. 2) 138</i> King's Gambit... The best move for the Black is to take your K.B.P.; but he may decline doing so.
	NP	1875 G. H. D. GOSSIP <i>Chess-Player's Man. 705</i> The Queen's Gambit accepted and declined.
<b>14.</b> <i>Sc. Law.</i> To refuse, disown, or formally object to the jurisdiction of (a judge or court). Cf. DECLINATOR <sup>2</sup> , DECLINATURE 1. ? <i>Obs.</i>	NP	1754 ERSKINE <i>Princ. Sc. Law (1809) 18</i> A judge may be declined, i.e. his jurisdiction disowned judicially, 1. <i>ratione causæ</i> , from his incompetency to the special cause brought before him.
<b>15.</b> To abandon, forsake, give up (a practice). <i>Obs.</i>	NP	1749 FIELDING <i>Tom Jones XIV. viii</i> , Having acquired a very good fortune, he had lately declined his business.

As one can see from the table above, this sense focuses mostly on *NP* complements. The different nuances of sense 11 appear to accept some prepositional complements, similar to the ones observed in the previous sense categories.

Sense 13b, which accepts both *to*-infinitives and *-ing* complements, marks the first sentential complement type encountered. Its nominal companion is 13a, which is restricted to nouns of action denoting similar events as the sentential constructions (consider, for instance, *decline to discuss* or *decline discussing* as opposed to *decline a discussion*).

This third sense category, especially sense 13, is well documented in external references, making it one of the senses which may be considered the primary senses of *decline* in present-day English. For instance, it is given by Herbst et al. (2004, 213), under the

meaning ‘refuse’, which roughly corresponds with meaning 13 in the *OED* entry. They have identified two complementation patterns to this sense: *NP*, as in example (33) and *to*-infinitive, as in example (34). Both examples are from Herbst et al.:

- (33) What a pity Mr Key *declined Mr Salter’s invitation*.  
 (34) Avon and Somerset police *declined to comment* on Mr Fleetwood’s allegations.

Herbst et al. (*ibid.*) also note that the two patterns above may be omitted if the coreferent is clear from the context.

Some additional comments regarding sentential complements of *decline* may be made from other grammatical sources. The *decline* + *to*-infinitive construction is described in modern English grammar references such as Huddleston and Pullum (2002, 1227), Quirk et al. (1985, 1187–1188), Biber et al. (1999, 700), the *Collins COBUILD Grammar Patterns* (Francis et al., 1996, 89), as well as in Poutsma (1904, 621). The *decline* + *-ing* construction, however, appears to be present only in historical grammars such as Visser (1973, 1870) and Poutsma (1904, 621), which is the source of the following example:

- (35) Mrs. Beaufort had *declined attending* the ceremony.

The aforementioned absence of the *-ing* pattern would foreshadow a possible diachronic increase in the *to*-infinitive complement at the expense of the *-ing* complement, essentially displaying a reversal of the *Great Complement Shift*, which predicts an opposite development, an increase in gerundial complements at the expense of infinitival complements. However, we may note that in the case of a verb such as *decline*, the choice of the *to*-infinitive over the gerund might be justifiable in terms of semantics, as the sentential complement expresses an unrealized event, in which case the *to*-infinitive would be preferred, as was discussed earlier in section 3.5.1.

Sense 13d, although marked as transitive in the *OED*, did not contain a single undisputed construction in which a direct object was present. However, the *NP* complement was marked into the table above as the example sentence may be considered block language. In this case *the Queen’s Gambit accepted and declined* refers to a pair of chess

strategies, and thus, they function as labels which are generally abbreviated, as is noted in Quirk et al. (1985, 845), for instance. Thus, *the Queen's Gambit declined* is related to *to decline the Queen's Gambit*.

#### 4.1.4 Sense IV: *To cause to bend down, descend, or slope.*

This sense category could be regarded as the transitive counterpart of sense II, adding the idea of someone causing the downward movement rather than moving downward as such.

The following table summarises the complementation patterns:

Table 6: Sense IV of *decline* with its subsenses and complementation patterns

Subsense	Pattern	Example
<b>16a.</b> To bend down, bow down, lean.	NP	1856 BRYANT Poems, Summer Wind 11 The clover droops..and declines its blooms.
	NP upon NP	1697 POTTER Antiq. Greece IV. v. (1715) 202 Another Token of Dejection was, to decline their Heads upon their Hands.
<b>16b.</b> To move or direct obliquely downwards.	NP	1725 POPE Odyss. IV. 145 His good old Sire with sorrow to the tomb Declines his trembling steps.
<b>17.</b> To lower, bring down, depress, bring low, degrade, debase. <i>lit.</i> and <i>fig. Obs.</i>	NP	a1649 DRUMMOND OF HAWTHORN-DEN Hist. Jas. I, Wks. (1711) 15 To decline the rank growth of these usurpers.
<b>18.</b> To cause to slant or slope, incline downwards.	(NP towards NP)	1812 J. J. HENRY Camp. agst. Quebec 149 Built on a plain pretty much declined towards the street.
	(NP against NP)	1849 RUSKIN Sev. Lamps iv. §23. 113 The uprightness of the form declined against the marble ledge.
<b>19.</b> To undervalue, disparage, depreciate. <i>Obs.</i>	NP	1649 SIR E. NICHOLAS in N. Papers (Camden) I. 143 What is here said is not with intencion to undervalue or decline y <sup>e</sup> Presbiterians.

As may be seen from the table, sense 16a appears to have the option of taking an additional *NP upon NP* complement, which was present in two *OED* quotations.

A problematic sense was number 18, which did not provide very good examples of the transitiveness of the pattern, making it difficult to decipher the ‘causing’ element in the example quotations. The prepositional element, however, is well represented.

#### 4.1.5 Sense V: *To inflect grammatically.*

The final sense of the verb has to do with linguistics; or more specifically the grammatical inflection of adjectives and nouns, and also sometimes of verbs. This sense is not very commonly encountered except in specialist terminology; it is even more uncommon since modern English itself does not have a very prominent system of declension.

The prototypical complement for this sense, as the *OED* illustrates, is a direct object. The table below summarises the *OED* entry.

Table 7: Sense V of *decline* with its subsenses and complementation patterns

Subsense	Pattern	Example
<b>20a.</b> <i>Gram.</i> To inflect (a noun, adjective, or pronoun) through its different cases; to go through or recite in order the cases of. (Cf. DECLENSION 4.) Also used more widely, or loosely, of verbs (for which the proper word is CONJUGATE).	NP	a1843 SOUTHEY Doctor (1862) 40 That verb is eternally being declined.
<b>20b.</b> <i>Transf.</i> To say or recite formally or in definite order. <i>Obs.</i>	NP	1627 DRAYTON Agincourt 201 That you no harsh, nor shallow rimes decline, Vpon that day wherein you shall read mine.

Despite the poetic word order in 20b, it is apparent that it involves the formal recitation of rimes, making the fronted ‘rimes’ the direct object of *decline*.

### 4.1.6 Summarising the preliminary complementation patterns of *decline*

The preliminary examination of *decline* through the *OED* quotation and grammars has yielded several initial ideas as regards the complementation of *decline*. Firstly, we may regard senses II and III as the primary senses of *decline*, as they were also well-represented in other references. Secondly, observations regarding the *to*-infinitive pattern from grammars suggests that it has become either rare or obsolescent in Present-Day English, a feature not well documented in the *OED* itself. Thirdly, prepositional patterns of *decline* may be regarded as optional in contemporary English, as Herbst et al. also point out.

The following table serves as a simplified summary of the preliminary complementation patterns of *decline*. The two senses that are best represented in grammatical references (and which we may thus assume to be the primary senses of *decline*) have been highlighted.

Table 8: Summary table of the complementation of *decline* as it is represented in the *OED* and grammars

Sense	Pattern
<b>I</b> To turn aside, deviate	<b>no complement</b> ( $\emptyset$ ) <b>prepositional:</b> from NP, to(ward)(s) NP, from NP to(ward)(s) NP
<b>II</b> To slope, incline, or bend downward	<b>no complement</b> ( $\emptyset$ ) <b>prepositional:</b> from NP, to(ward)(s) NP, from NP to(ward)(s) NP, on NP, by NP[quantity], in NP, into NP
<b>III</b> To cause to turn aside, to avert; to turn aside from, avoid, refuse	<b>no complement</b> ( $\emptyset$ ) <b>nominal:</b> NP <b>nominal + prepositional:</b> NP from NP, NP to NP <b>sentential:</b> -ing, to-infinitive
<b>IV</b> To cause to bend down, descend, or slope	<b>no complement</b> ( $\emptyset$ ) <b>nominal:</b> NP <b>nominal + prepositional:</b> NP upon NP, NP to(ward)(s) NP, NP against NP
<b>V</b> To inflect grammatically	<b>nominal:</b> NP



We now move on to discuss some research that has been done on the verb *decline* in the past.

## 4.2 Previous research done on the complementation of *decline*

Prior research on the verb *decline* has been done by Teresa Fanego, who has studied the spread and the development of the gerund after verbs of subject control (including *decline*) during the period 1400–1760. She mentions that the gerund was established for negative implicative verbs such as *decline* around 1640–1710, following verbs such as *forbear*, *escape*, *avoid*, and so on (Fanego, 1996b, 46). She notes that the image of the sentential complementation of *decline* and similar verbs from 1710 onwards is somewhat unclear, although it shows the increasing establishment of the gerund as a sentential complement (Fanego, 1996b, 52–53). The variation between the gerund and the *to*-infinitive, however, is characterized as unsystematic (Fanego, 1996b, 54).

As the present study will focus on the time period from 1710 onwards, it will hopefully not only shed additional light on the results of Fanego’s research, but also bring the image of the complementation of *decline* to a better focus.

## 5 Corpus data from 1710 to 1920: the extended CLMET

As has already been pointed out in section 2.3, data from two corpora will be used in the study of the verb *decline*: the extended CLMET and the BNC. This section will be devoted to the first of these two, the extended CLMET, which is divided into three time periods of 70 years. Part 1 contains texts from 1710 to 1780, part 2 from 1780 to 1850 and part 3 from 1850 to 1920.

Unlike the BNC, the extended CLMET is untagged, making it necessary to search for all the relevant word forms (*decline*, *declines*, *declined* and *declining*) and filter out any irrelevant tokens manually. Fortunately, this is not excessively laborious, as the corpus is of manageable size. It also insures that the majority of tokens are relevant to the present study, which may not be the case when relying solely on POS tags (we will return to this issue in the BNC section).

Searching for the different forms of the verb *decline* yielded a total of 197 tokens from the first part of the corpus, 367 tokens from the second part and 269 tokens from the third part. By examining the tokens manually, two irrelevant (non-verbal) patterns were identified. The first of these was the noun *decline* as in (36a–d), and the second was the adjective *declining*, as in (37a–c).

- (36) a. In February 1692, being then in *the decline* of life, he married one Mrs Dives, maid of honour to the Queen. (CLMET 1: 1703 cibber 1753 - the lives of the poets 3.txt)
- b. The last act of his life did not disgrace him; for, having gone abroad, and falling into a dangerous *decline*, he was advised to return home. (1778 hazlitt 1821-2 - table talk.txt)
- c. But there is a preliminary difficulty: What is progress, and what is *decline*? (CLMET 3: 1826 bagehot 1869 - physics and politics.txt)
- d. Sleep had again overpowered the sick woman, who appeared to be slowly dying of that anomalous disease called *decline*, in which the mind is the chief agent of the body's decay. (CLMET 3: 1826 craik 1850 - olive 1-3.txt)
- (37) a. Put your Sieve then into a *declining* Oven, and let it stand twelve Hours; ... (CLMET 1: 1688 bradley 1732 - the country housewife and lady's director.txt)
- b. Mr Cayenne of Wheatrig having for several years been in a *declining* way, partly brought on by the consuming fire of his furious passion, ... (CLMET 2: 1779 galt 1821 - annals of the parish.txt)

- c. The officers, sweltering at weary Wady Halfa and Suakin, looked at the gathering resources of Egypt and out into the deserts of the *declining* Dervish Empire and knew that some day their turn would come. (CLMET 3: 1874 churchill 1899 - the river war.txt)

In addition to the tokens clearly falling under the wrong word class as the ones above, one ambiguous use of *declines* was also removed. The token, given below, could perhaps be interpreted either as the plural noun *decline* or the verb *decline* where the subject has been omitted.

- (38) It is the forecast of thy soul- the prescience of thy rushing doom- the shadow of thy fate lengthening into eternity as *declines* from earth. (CLMET 2: 1803 bulwer-lytton 1834 - the last days of pompeii.txt)

The removal of irrelevant or otherwise ambiguous tokens reduced the data to 125 tokens in the first part, 278 tokens in the second part and 198 tokens in the third part.

## 5.1 Part 1: 1710–1780

As was already mentioned, a total of 125 tokens (41.2 instances per million words) of the verb *decline* were found in the first part of the extended CLMET. These fell into seven distinct complementation patterns, which are: *decline* +  $\emptyset$  (without complements) (39), *decline* + NP (40), *decline* + *to*-infinitive (41), *decline* + *-ing* (42), *decline* + *in* NP (43), *decline* + *from* NP (44) and *decline* + *to* NP (45):

- (39) ... and it is remarkable that the reputation of this truly great man *has been* continually *declining* as the art itself *has declined*. (1723 reynolds 1769-76 - seven discourses on art.txt)
- (40) I first *declined the proposal*, and pretended business, but as he was very earnest and pressing, hunger at last overcame my pride, and I fairly confessed to him I had no money in my pocket; ... (1707 fielding 1749 - tom jones.txt)
- (41) In 1827 the British Government *declined to accede* to a request to throw its protectorate over Tahiti.(1728 cook 1768-71 - captain cook's journal.txt)
- (42) And I have been informed that, after his remarkable conversion, he *declined accepting* a challenge, with this calm and truly great reply, which, in a man of his experienced bravery, was exceedingly graceful: ... (1701 doddridge 1750 - the life of col. james gardiner.txt, line 244)

- (43) The only instance I ever heard of his sagacity, was his deserting his former patron, when he found him *declining in power*, and in disgrace with the people. (1721 smollett 1771 - the expedition of humphrey clinker.txt)
- (44) ... for when once a country *declines from its primitive splendour*, the more inhabitants are left, the quicker ruin will be made. Walls supply stones more easily than quarries; ... (1709 johnson 1759 - rasselas, prince of abyssinia.txt)
- (45) ... but to me, who am now *declining to decrepitude*, there is little to be feared from the malevolence of men, and yet less to be hoped from their affection or esteem. (1709 johnson 1759 - rasselas, prince of abyssinia.txt)

The following table presents the frequencies of each of the seven complementation patterns. The actual number of tokens is given first, followed by the number of instances per million words in parentheses.

Table 9: Complements of *decline* in different inflectional forms in the 1<sup>st</sup> part of the extended CLMET (1710–1780) with normalized frequencies

pattern	decline	declines	declined	declining	Total
∅	7 (2.3)	3 (1.0)	5 (1.6)	7 (2.3)	22 (7.2)
NP	31 (10.2)	2 (0.7)	38 (12.5)	6 (2.0)	77 (25.3)
to-infinitive	-	-	2 (0.7)	1 (0.3)	3 (1.0)
-ing	4 (1.3)	-	15 (4.9)	-	19 (6.3)
in NP	1 (0.3)	-	-	1 (0.3)	2 (0.7)
from NP	-	1 (0.3)	-	-	1 (0.3)
to NP	-	-	-	1 (0.3)	1 (0.3)
<b>Total</b>	44 (14.5)	6 (2.0)	60 (19.8)	16 (5.3)	125 (41.2)

As we may see from the statistics above, the most frequent pattern of the first data batch turns out to be the *NP* complement pattern, which covers over half of the data with its 77 tokens. The second most frequent pattern is the construction without complements, which yielded 22 tokens. Prepositional patterns with *decline* appear to be a marginal phenomenon, with two *in NP* constructions and unique tokens of the *to NP* and the *from NP* patterns.

Both of the two sentential complement patterns, the *to-infinitive* and the *-ing*, which were briefly introduced and discussed earlier in section 4.1.3 are present in the data, covering a total of 22 tokens. An interesting observation is that the *-ing* pattern, which

is generally less represented in grammar references, emerged as the preferred pattern of the 18<sup>th</sup> century with its 19 tokens; only three tokens of the *decline* with a *to*-infinitive complement were present in first part. However, it should also be noted that the apparent dominance of the *-ing* pattern does not constitute violations of the *horror aequi* principle. One example for testing the principle was present in the data, illustrated below:

- (46) With as little reason, my lords, is the charge advanced of neglecting to preserve the balance of Europe, by *declining to assist* the emperour against the French; ... (1709 johnson 1740-1 - parliamentary debates 1.txt)

We may make a small sidenote that one of the  $\emptyset$  complement tokens involving a gerund was preceded by a genitive form:

- (47) ... therefore, I am sure you will forgive *my declining*, an act of friendship which your having put in my power gives me the greatest satisfaction. (1717 walpole 1735-48 - letters 1735-1748.txt)

This form, which is also referred to as the *poss-ing* form, is discussed by, for example, Huddleston and Pullum (2002, 1191–1192). The inclusion of this *poss-ing* construction amongst the tokens may be disputable, as it is capable, in its present complementless form, of taking either a verbal complement, such as a direct object, or a nominal complement, such as an *of*-phrase, as is mentioned, for instance, by Lyne (2006, 38). However, I decided to treat it as a verb in this analysis.

The *NP* pattern of *decline* appears to have considerable flexibility between the location of the matrix verb and the *NP* complement (at least in 18<sup>th</sup> century English). 10 of the *NP* tokens involved movement, including passivization (48a), as well as three kinds of fronting shown in (48b), (48c) and (48d).

- (48) a. ... tho' the necessity of the times made it clear, that *those advantages* were *not to be declined*, and were necessary to be practised, yet he found means to put it off from himself[4]. (1703 cibber 1753 - the lives of the poets 1.txt)  
 b. ... Mr. Gore saw some [natives] up the Bay, who by signs invited him ashore, *which* he prudently *declined*. (1728 cook 1768-71 - captain cook's journal.txt)

- c. ... we made them understand that we were going to eat, and asked them by signals to go with us; but *this* they *declined*, and as soon as we left them they went away in their Canoe. (1728 cook 1768-71 - captain cook's journal.txt)
- d. But they all refused me; and then it was he let me know, that there was no honourable way but marriage. *That* I *declined*; and he agreed to assist me for God's sake. (1689 richardson 1740 - pamela.txt)

In addition to this, two tokens, illustrated by (49a) and (49b), involved movement out of the lower clause. One of these involved a *to*-infinitive while the other involved a gerund.

- (49) a. Raleigh was received with great joy by the Indians, who not only assisted him with provisions, and every thing else in their power, but offered him the sovereignty of their country if he would settle amongst them, *which* he *declined to accept*. (1703 cibber 1753 - the lives of the poets 1.txt)
- b. ... Nay, he actually came to me as a justice of the peace, in order to make oath of these particulars, *which*, however, I *declined administering*. (1721 smollett 1771 - the expedition of humphrey clinker.txt)

Although only two extraction tokens were present in the examined data, the presence of a extracted gerund complement in example (49b) above is noteworthy, as it clashes with Vosberg's extraction principle discussed earlier in section 3.5.4 (which suggests that the *to*-infinitive would be preferred in extracted contexts). This could be considered as additional evidence of the dominance of the *-ing* complement pattern, which was also apparent from the distribution of different patterns in the data. However, a larger set of tokens would be required to see which extracted sentential complement is the preferred one with *decline*.

In addition to extractions, three insertion cases were also present in the tokens. All of these were amongst the *NP* tokens.

- (50) Of all the troubles, *do not decline*, as many people do, *that of thinking*. (1694 chesterfield 1746-71 - letters to his son on the art....txt)
- (51) The senate, convoked in the temple of Concord, affected to transact the common business of the day; and seemed to *decline*, with trembling anxiety, *the consideration of their own and the public danger*. (1737 gibbon 1776 - decline and fall of the roman empire 1.txt)

- (52) It should seem that some of the Gnostics (the Basilidians) *declined*, and even refused *the honor of Martyrdom*. (1737 gibbon 1776 - decline and fall of the roman empire 1.txt)

The following table summarises extractions and insertions within the data.

Table 10: Extractions and insertions in the 1<sup>st</sup> part of the extended CLMET (1710–1780)

Pattern involved	NP	to-inf	-ing	Total
<b>Extractions</b>	10 (3.3)	1 (0.3)	1 (0.3)	12 (4.0)
<b>Insertions</b>	3 (1.0)	- ()	- ()	3 (1.0)

Before proceeding to the next part of the corpus, let us take a look at the sense distribution of *decline* in the data. This is given in the following table.

Table 11: Sense distribution of *decline* between complementation patterns in the 1<sup>st</sup> part of the extended CLMET (1710–1780)

sense	I	II	III	IV	V	Total
∅	-	19 (15.2%)	3 (2.4%)	-	-	22 (17.6%)
NP	-	-	77 (61.6%)	-	-	77 (61.6%)
to-inf	-	-	3 (2.4%)	-	-	3 (2.4%)
-ing	-	-	19 (15.2%)	-	-	19 (15.2%)
in NP	-	2 (1.6%)	-	-	-	2 (1.6%)
from NP	-	1 (0.8%)	-	-	-	1 (0.8%)
to NP	-	1 (0.8%)	-	-	-	1 (0.8%)
<b>Total</b>	0 (0%)	23 (18.4%)	102 (81.6%)	0 (0%)	0 (0%)	125 (100.0%)

The overall picture of the senses appears to be in relative harmony with what has already established in section 4.1, that is, sense categories II (‘to slope, incline, or bend downward’) and III (‘to cause to turn aside, to avert; to turn aside from, avoid, refuse’), which tended to be well represented in reference literature, are also the most frequent meanings according to the data. We cannot say that they are represented equally, however;

category III is by far the most frequent, covering more than 80 per cent of the tokens. Taking into account that sense III is a transitive pattern while II is not, this largely reflects the dominance of the *NP* complement pattern. The remaining senses of *decline* (I, IV and V) were not present in the data.

It is quite interesting to see that the  $\emptyset$  complement pattern is rarely encountered in sense III; only 3 such tokens were present in the data. As was already pointed out earlier in section 4.1.3, the  $\emptyset$  complement may be used in this sense category if the coreferent (which, according to the *OED*, is a sentential complement) is clear from the context.

We conclude our examination of the first part of the extended CLMET with a table which provides illustrations of the encountered senses.

Table 12: Example illustrations of the different senses of *decline* in the 1<sup>st</sup> part of the extended CLMET

Sense	Pattern	Example
<b>II To slope, incline, or bend downward.</b>		
<b>6.</b> To bend down, bow down, droop	$\emptyset$	In this Month it may not be unnecessary to observe that Oranges <i>are declining</i> , and waste apaces; ... (1688 bradley 1732 - the country housewife and lady's director.txt)
<b>8a.</b> To sink towards setting.	$\emptyset$	... Serene in virgin modesty she shines, And unobserved the glaring orb declines. (1688 pope 1733-4 - an essay on man.txt)
<b>8b.</b> <i>transf.</i> Said of the day / of one's life: To draw towards its close.	$\emptyset$	... I should seriously think of the rest of my family, and attempt to save my own life, which was every day declining, ... (1728 goldsmith 1766 - the vicar of wakefield.txt)
<b>10.</b> <i>fig.</i> To fall off, fail, decay, wane, diminish, decrease, deteriorate.	$\emptyset$	We are told, my lords, by all parties, and told with truth, that our manufactures decline, because the French have engrossed most of the foreign markets; ... (1709 johnson 1740-1 - parliamentary debates 1.txt)
	in NP	... he found him declining in power, and in disgrace with the people. (1721 smollett 1771 - the expedition of humphrey clinker.txt)



Sense	Pattern	Example
	from NP	... once a country declines from its primitive splendour, the more inhabitants are left, the quicker ruin will be made. (1709 johnson 1759 - rasselas, prince of abyssinia.txt)
	to NP	... but to me, who am now declining to decrepitude, there is little to be feared from the malevolence of men, ... (1709 johnson 1759 - rasselas, prince of abyssinia.txt)

### III To cause to turn aside, to avert; to turn aside from, avoid, refuse.

<b>13a.</b> To turn away from (anything suggested / presenting itself)	NP	... and suspecting that his fear would supply him with other excuses for declining the combat, ... (1721 smollett 1751 - the adventures of peregrine pickle.txt)
<b>13b.</b> Not to consent or agree to doing, or to do something	∅	... he had no apprehension that the serjeant would decline- ... (1707 fielding 1751 - amelia.txt)
	to-inf.	In 1827 the British Government declined to accede to a request to throw its protectorate over Tahiti. (1728 cook 1768-71 - captain cook's journal.txt)
	-ing	The captain would have declined giving a catagorical explanation of all these particulars, ... (1721 smollett 1771 - the expedition of humphrey clinker.txt)
<b>13c.</b> Not to accept (something offered)	NP	Jones declined this offer in a very civil and proper speech, ... (1707 fielding 1749 - tom jones.txt)

## 5.2 Part 2: 1780–1850

The verb *decline* was slightly more frequent in the second part of the extended CLMET than in the first part (278 tokens, 48.6 instances per million words). The tokens were distributed to eight complementation patterns: *decline* + ∅ (53), *decline* + NP (54), *decline* + to-infinitive (55), *decline* + -ing (56), *decline* + in NP (57), *decline* + into NP (58) and *decline* + on NP (59) and *decline* + towards NP (60).

- (53) ... but my health *declined*, I was compelled to give up my employment, and, by degrees, became the object you now see me. (1753 inchbald 1798 - lovers' vows.txt)

- (54) It was confessedly one of the reasons for which he *declined a proposition* made to him in the year 1773, to remove to the chair of Moral Philosophy in Edinburgh; ... (1772 cary 1846 - lives of the english poets.txt)
- (55) Cecilia endeavoured to recover her serenity, and answer these questions in her usual manner; but she persisted in *declining to give* any opinion at all about the plans, and, after slightly looking at them, left the room. (1752 burney 1782 - cecilia 1-2.txt)
- (56) Mr. Norris himself, when certain prisoners of war were offered to him for sale, *declined buying* them because they appeared unhealthy; ... (1760 clarkson 1839 - the history of the abolition of the african slave-trade.txt)
- (57) Frankenstein has daily *declined in health*; a feverish fire still glimmers in his eyes, but he is exhausted, and when suddenly roused to any exertion, he speedily sinks again into apparent lifelessness. (1797 shelly 1818 - frankenstein.txt)
- (58) Yet even to his final sermon, he maintained his preeminence; and in no one discourse of his last years, did he *decline into mediocrity*, or fail to remind the elder part of his audience of a period when his eloquence was almost superhuman. (1770 cottle 1847 - reminiscences of samuel taylor coleridge and robert southey.txt)
- (59) ... and, Sallust's head now *declining* fairly *on his breast*, they bore him off to his cubiculum, still muttering lamentations for Glaucus, and imprecations on the unfeeling overtures of ladies of pleasure. (1803 bulwer-lytton 1834 - the last days of pompeii.txt)
- (60) Some hours passed thus; but by degrees, as the sun *declined towards the horizon*, the wind died away into a gentle breeze and the sea became free from breakers. (1797 shelly 1818 - frankenstein.txt)

The distribution of the complementation patterns is given in the table below.

Table 13: Complements of *decline* in different inflectional forms in the 2<sup>nd</sup> part of the extended CLMET (1780–1850) with normalized frequencies

pattern	decline	declines	declined	declining	Total
∅	15 (2.6)	6 (1.0)	27 (4.7)	16 (2.8)	64 (11.2)
NP	34 (5.9)	6 (1.0)	76 (13.3)	13 (2.3)	129 (22.5)
to-infinitive	3 (0.5)	1 (0.2)	16 (2.8)	8 (1.4)	28 (4.9)
-ing	15 (2.6)	2 (0.3)	34 (5.9)	1 (0.2)	52 (9.1)
in NP	-	-	2 (0.3)	-	2 (0.3)
into NP	1 (0.2)	-	-	-	1 (0.2)
on NP	-	-	-	-	1 (0.2)
towards NP	1 (0.2)	-	-	-	1 (0.2)
<b>Total</b>	68 (11.9)	15 (2.6)	156 (27.3)	39 (6.8)	278 (48.6)

As was the case with the first dataset, the *NP* is the most frequent complement for *decline* (129 tokens, about 46 per cent of the data), although unlike in the previous subcorpus, it no longer covers the majority of the tokens. The pattern without complements is the second most frequent (64 tokens, 23 per cent), again similarly to the first part of the corpus.

Sentential complements have increased considerably; at approximately 15 instances per million words, their relative frequency has doubled from that of the first subcorpus. Rivalry between the *-ing* and the *to*-infinitive patterns continues, with the *-ing* pattern still remaining dominant (52 tokens, 19 per cent), although the *to*-infinitive complement has also gained ground, now occupying about 10 per cent of the data with its 28 tokens.

One *horror aequi* violation was also present in the data. This violation involved two concatenated *-ing* forms, further supporting the dominance of the *-ing* sentential complement in this part of the corpus. The token is as follows:

- (61) I sent him as civil an answer as if I had been engaged to translate by the sheet, *declining altering* anything in sentiment, but offered to tag rhymes, and mend them as long as he liked. (1788 byron 1810-3 - letters 1810-1813.txt)

The number of distinct prepositional complement patterns has increased to four. Their coverage of the entire data, however, remains very small (5 tokens, 2 per cent). Thus, the use of prepositions appears to remain equally marginal in this period, as well.

*Decline* with a noun phrase has retained its flexibility as regards the location of the complement; amongst the 130 *NP* tokens, a total of 17 extractions of different types were present: four passivizations, 8 *which*-frontings, two *this*-frontings and two other frontings. These have been illustrated in (62a–d) below. In addition to this, the heterogeneousness of sentential extractions also continues, with three extractions in *-ing* context and two in *to*-infinitive context, exemplified in (63a–b).

- (62) a. *The manuscript* was offered to Murray for L20, but *declined* by him. (1788 byron 1810-3 - letters 1810-1813.txt)  
 b. He received some honorary presents from the French Republic, (a golden crown I believe), and, like our Priestley, was invited to a seat in the legislature, *which* he *declined*. (1772 coleridge 1817 - biographia literaria.txt)

- c. My father then, on condition of my taking orders, and going into the Church, proposed to send me to Oxford, and to purchase the next presentation to a living of upwards of a thousand a year, which was offered to him at that time at a very moderate price; subject to the life of the incumbent, who was upwards of seventy years of age. *This I declined*, as I had a great wish to be a farmer; ... (1773 hunt h 1820-2 - memoirs of henry hunt 1.txt)
  - d. ... The accusative of wrong, the nominative of right, And in all cases the case absolute! Self-construed, I *all other moods decline*: ... (1772 coleridge 1817 - biographia literaria.txt)
- (63)
- a. There is no attaining this exalted hold but by the means of a cord let down many fathoms by the soldiers, who live in dens and caverns, which serve also as arsenals, and magazines for powder; *whose mysteries I declined prying into*, their approach being a little too aerial for my earthly frame. (1760 beckford 1783 - dreams, waking thoughts, and incidents.txt)
  - b. I requested Best to show us his purse, to see if he had any more money in it. *This he declined to do*; ... (1773 hunt h 1820-2 - memoirs of henry hunt 1.txt)

Insertions were present in five tokens, distributed between the two sentential complement patterns. Three of these were of the *-ing* type and two of the *to*-infinitive type. For illustration, examples (64a–b) are given below.

- (64)
- a. ... in spite of his great distaste for the fatal amusement which was there invariably pursued, Vivian found it impossible *to decline* frequently *attending* without subjecting his motives to painful misconception. (1804 disraeli 1826 - vivian grey.txt)
  - b. ... he would fain have persuaded me to retain him as a servant, assuring me that, in the event of my compliance, he would forget his wife and children and follow me through the world. I *declined*, however, *to accede to his request*, though I was in need of a domestic; ... (1803 borrow 1842 - bible in spain.txt)

The distribution between insertions in sentential contexts appears to be slightly clearer with the larger second subcorpus of the extended CLMET than it was with the previous subcorpus. Interestingly, in the case of extractions, three out of five examples used the less implicit *-ing* complement, further supporting the dominance of that specific sentential pattern. The dominance of the *-ing* pattern is also clearer than in the first part of the extended CLMET, where extractions were evenly distributed between the *to*-infinitive and the *-ing* form. Thus, the data appears, to a small extent, to undermine the validity of Vosberg's extraction principle in the case of the matrix verb *decline*.

The trend of preferring the *-ing* complement over the *to*-infinitive is also apparent in insertion contexts; while the only inserted element amongst the *to*-infinitive tokens was the *however* as in (64b) above, two out of the three *-ing* tokens involved longer insertions (or insertions with more than one intervening word) than the aforementioned *however*. These two insertions are illustrated in (65a–b) below.

- (65) a. A proposal so truly friendly made her look upon the regard of Mr Monckton in a higher and nobler point of view than her utmost esteem and reverence had hitherto placed it: yet she *declined* at first *accepting* the offer, from an apprehension it might occasion him inconvenience; ... (1752 burney 1782 - cecilia 1-2.txt)
- b. I remember, when I was at school, there was one boy, who, from his first coming, *declined* upon all occasions *engaging* in any battle; ... (1755 kilner 1783 - life and perambulations of a mouse.txt)

Thus, insertions appear to support the *-ing* form as the dominant sentential complement of *decline* around the late 18<sup>th</sup> and the early 19<sup>th</sup> century.

The following table summarises extractions and insertions in the corpus.

Table 14: Extractions and insertions in the 2<sup>nd</sup> part of the extended CLMET (1780–1850)

Pattern involved	NP	to-inf	-ing	Total
Extractions	17 (3.0)	2 (0.3)	3 (0.5)	22 (3.8)
Insertions	-	2 (0.3)	3 (0.5)	3 (0.9)

Let us move on to semantic distribution of the data. The complementation patterns are distributed amongst the different senses of *decline* as is presented in the following table.

Table 15: Sense distribution of *decline* between complementation patterns in the 2<sup>nd</sup> part of the extended CLMET (1780–1850)

sense	I	II	III	IV	V	Total
∅	-	43 (15.5%)	21 (7.6%)	-	-	64 (23.6%)
NP	1 (0.4%)	-	126 (45.3%)	-	2 (0.7%)	129 (46.4%)
to-inf	-	-	28 (10.1%)	-	-	28 (10.1%)
-ing	-	-	52 (18.7%)	-	-	52 (18.7%)
in NP	-	2 (0.7%)	-	-	-	2 (0.7%)
into NP	-	1 (0.4%)	-	-	-	1 (0.4%)
on NP	-	1 (0.4%)	-	-	-	1 (0.4%)
towards NP	-	1 (0.4%)	-	-	-	1 (0.4%)
<b>Total</b>	1 (0.4%)	48 (17.3%)	227 (81.7%)	0	2 (0.7%)	278 (100.0%)

The data was distributed between four senses. Two of these, II (‘to slope, incline, or bend downward’) and III (‘to cause to turn aside, to avert; to turn aside from, avoid, refuse’), were present in the previous batch, while a marginal number of examples fell under two previously unrepresented senses I (‘to turn aside, deviate’) and V (‘to inflect grammatically’). The overall distribution has remained surprisingly similar to the first part of the corpus; only minor fluctuation distinguishes the two batches from one another.

Some changes, however, are apparent, especially within sense III, where *NP* complementation has given room to  $\emptyset$  complementation as well as sentential complementation, both of which are on the increase.  $\emptyset$  complementation now covers 7.6 per cent as opposed to the 2.4 per cent of the first part and sentential patterns cover about 29 per cent as opposed to the about 18 per cent of the first part.

To wrap up the examination of the second part of the extended CLMET, the following table provides an example of each encountered subsense.

Table 16: Example illustrations of the different senses of *decline* in the 2<sup>nd</sup> part of the extended CLMET

Sense	Pattern	Example
<b>I To turn aside, deviate.</b>		
4. <i>fig.</i> To incline or lean <i>to</i> . <i>Obs.</i>	NP	... “it was a shrewd hint to the lord legate which way his judgment should decline. Your niece will assuredly be Queen of England.” (1805 ainsworth 1843 - windsor castle.txt)
<b>II To slope, incline, or bend downward.</b>		
5. To deviate from the horizontal or vertical position; to have a downward inclination, to slant or slope downward.	∅	So saying, he sprang from the stone, and, taking Wyatt’s hand, led him towards the lower end of the cave, which gradually declined till it reached the edge of a small but apparently deep pool of water, the level of which rose above the rock that formed its boundary. (1805 ainsworth 1843 - windsor castle.txt)
6. To bend down, bow down, droop.	on NP	Take him to bed said the freedman; and, Sallust’s head now declining fairly on his breast, they bore him off to his cubiculum, still muttering lamentations for Glaucus, and imprecations on the unfeeling overtures of ladies of pleasure. (1803 bulwer-lytton 1834 - the last days of pompeii.txt)
8a. Of the sun or other heavenly body: To descend in the sky after culmination; to sink towards setting.	∅	A profusion of aromatic flowers covered the slopes, and exhaled additional perfumes, as the sun declined, and the still hour approached, which was wont to spread over my mind a divine composure, and to restore the tranquillity I might have lost in the day. (1760 beckford 1783 - dreams, waking thoughts, and incidents.txt)
8b. <i>transf.</i> Said of the day (evening, etc.), also <i>fig.</i> of one’s life: To draw towards its close. (Often with mixture of sense 10.)	∅	Thus, the flush of the day, in its heat and light, would gradually decline; and again the golden water would be dancing on the wall. He was visited by as many as three grave doctors—they used to assemble downstairs, an (1812 dickens 1848 - dombey and son.txt)

Sense	Pattern	Example
<b>10</b> <i>fig.</i> To fall off, fail, decay, wane, diminish, decrease, deteriorate.	∅	We stayed the ensuing day in Mendoza. The prosperity of the place has much declined of late years. (1809 darwin 1839 - voyage of the beagle.txt)
	in NP	Frankenstein has daily declined in health; a feverish fire still glimmers in his eyes, but he is exhausted, and when suddenly roused to any exertion, he speedily sinks again into apparent lifelessness. (1797 shelly 1818 - frankenstein.txt)
	into NP	Yet even to his final sermon, he maintained his preeminence; and in no one discourse of his last years, did he decline into mediocrity, or fail to remind the elder part of his audience of a period when his eloquence was almost superhuman. (1770 cottle 1847 - reminiscences of samuel taylor coleridge and robert southey.txt)

### III To cause to turn aside, to avert; to turn aside from, avoid, refuse.

<b>13a.</b> To turn away from (anything suggested / presenting itself)	NP	... but lord Antinous stayed him, and threatened him that if he declined the combat, he would put him in a ship, and land him on the shores where king Echetus reigned, the roughest tyrant which at that time the world contained, ... (1775 lamb 1808 - adventures of ulysses.txt)
<b>13b.</b> Not to consent or agree to doing, or to do something	∅	But in the afternoon, while Joseph and Hareton were at their work, he came into the kitchen again, and with a wild look bade me come and sit in the house; he wanted somebody with him. I declined, telling him plainly that his strange talk and manner frightened me, and I had neither the nerve nor the will to be his companion alone. (1818 bront 1847 - wuthering heights.txt)
	to-inf.	To her Ladyship's surprise, however, Pitt declined to accommodate his brother with a cheque for thirty thousand pounds. (1811 thackeray 1847-8 - vanity fair.txt)



Sense	Pattern	Example
	-ing	The President, when he forms his Council, may decline naming those members who are most fit for such situations. (1792 babbage 1830 - reflections on the decline of science in england.txt)
<b>13c.</b> Not to accept (something offered)	NP	I have given you all–my heart, and whatever I possess, is yours! She seemed good-humouredly to decline this carte blanche offer, and waved, like a thing of enchantment, out of the room. (1778 hazlitt 1823 - liber amoris.txt)
<b>15.</b> To abandon, forsake, give up (a practice). <i>Obs.</i>	NP	I told him at the same time, that, when I declined the business of a bookseller, I for ever quitted publishing, so that I could not receive his MSS. valuable as they doubtless were; ... (1770 cottle 1847 - reminiscences of samuel taylor coleridge and robert southey.txt)

#### V To inflect grammatically.

<b>20a.</b> <i>Gram.</i> To inflect (a noun, adjective, or pronoun) through its different cases.	NP	The number of such words would be small indeed, in our language; and even in the Italian and Greek, they consist not so much of different words, as of slight differences in the forms of declining and conjugating the same words; ... (1772 coleridge 1817 - biographia literaria.txt)
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### 5.3 Part 3: 1850–1920

The first observation that catches one’s eye in the third subcorpus of the extended CLMET is that *decline* present in 198 tokens (31.7 instances per million words), has suffered a frequency drop of about 17 instances per million words compared to the previous part of the corpus. The spectrum of complementation, however, does not appear to have been affected by this decrease: amongst the tokens, eight distinct complementation patterns were encountered: *decline* +  $\emptyset$  (66), *decline* + NP (67), *decline* + *to*-infinitive (68), *decline* + *-ing* (69), *decline* + *in* NP (70), *decline* + *into* NP (71), *decline* + *to* NP (72) and *decline* + *upon* NP (73). The *decline* + *upon* NP pattern is not present in the *OED* or the examined grammars.

- (66) ... and from the first day of their acquaintance my star in the office *declined*. (1822 linton 1885 - the autobiography of christopher kirkland 1-3.txt)
- (67) He had said so much already in spite of me, and he looked so dreadfully capable of saying a great deal more also in spite of me, that I *declined his amiable invitation* in pure self-defence. (1824 collins 1859-60 - the woman in white.txt)
- (68) The difficulty is this: if the Bank *decline to discount*, the holders of the bills previously discounted cannot pay. (1826 bagehot 1873 - lombard street.txt)
- (69) I positively *declined exploring* the upper regions of dust and dirt at the risk of soiling my nice clean clothes. (1824 collins 1859-60 - the woman in white.txt)
- (70) ... an oligarchy that will certainly *decline in efficiency* in a generation or so ... (1866 wells 1902-3 - mankind in the making.txt)
- (71) ... to the spot where the road *declined again into the valley beyond*. (1839 pater 1885 - marius the epicurian - vol. 1.txt)
- (72) ... lying away from the white road, at the point where it began *to decline* somewhat steeply *to the marsh-land* below. (1839 pater 1885 - marius the epicurian - vol. 1.txt)
- (73) Helen, therefore, *declined upon diplomacy*, upon the inverted sweetnesses calculated nicely to mask an intention quite other than sweet. (1852 malet 1901 - the history of sir richard calmady.txt)

The distribution of the patterns is given in the table below.

Table 17: Complements of *decline* in different inflectional forms in the 3<sup>rd</sup> part of the extended CLMET (1850–1920) with normalized frequencies

pattern	decline	declines	declined	declining	Total
∅	9 (1.4)	1 (0.2)	24 (3.8)	6 (1.0)	40 (6.4)
NP	9 (1.4)	-	35 (5.6)	3 (0.5)	47 (7.5)
to-infinitive	25 (4.0)	6 (1.0)	50 (8.0)	11 (1.8)	92 (14.7)
-ing	4 (0.6)	-	6 (1.0)	-	10 (1.6)
in NP	1 (0.2)	-	-	1 (0.2)	2 (0.3)
into NP	-	-	1 (0.2)	-	1 (0.2)
to NP	1 (0.2)	1 (0.2)	2 (0.3)	-	4 (0.6)
upon NP	1 (0.2)	-	2 (0.3)	-	3 (0.5)
<b>Total</b>	50 (8.0)	8 (1.3)	120 (19.2)	20 (3.2)	198 (31.7)

Pattern distribution is considerably different than in the previous parts of the corpus. The most notable change has to do with sentential complements; the *to*-infinitive has emerged as the dominant sentential complementation pattern as well as the most frequent pattern

(92 tokens, 46 per cent). The *NP* pattern is the second most frequent (46 tokens, 23 per cent), followed by the  $\emptyset$  pattern (40 tokens, 20 per cent). The *-ing* pattern, which previously dominated sentential complementation, has reduced to only 10 tokens (5 per cent of all the tokens).

The number of different prepositional patterns is the same as in the previous section, although not all the patterns are the same. The prepositions cover 10 tokens (5 per cent of all the tokens), which is slightly more than earlier.

It is noteworthy to mention that unlike in the first two parts of the corpus, the *to*-infinitive complement was encountered also in cases where the matrix verb itself was in the same form, violating the *horror aequi* principle.

- (74) ... Lady Muriel—not being one of those lady-singers who think it de rigueur *to decline to sing* till they have been petitioned three or four times, ... (1832 carroll 1889 - sylvie and bruno.txt)
- (75) He is going to keep it out of the papers. As much as he can. But of course he owes a duty to the public. I am going *to decline to see him*. I think it better. (1859 jerome 1909 - they and i.txt)

These violations also support the increased dominance of the *to*-infinitive complement as opposed to the *-ing* complement.

Similarly to the previous sections, a number of extractions and insertions were present. These included five *which*-frontings, four of which involved an *NP* complement and one which involved a *PP*. There was also one *what*-fronting and two passivizations. In addition to this, four sentential extractions were present, all of which involved the *to*-infinitive pattern. Thus, extraction contexts have begun to favour the *to*-infinitive complement, which, in addition to agreeing with Vosberg's extraction principle, also support the apparent fade-out of the *-ing* complement.

- (76) a. On returning Gowing noticed I was not smoking: offered me another cigar, *which* I politely *declined*. (1847 grossmith 1894 - the diary of a nobody.txt)
- b. I first saw him in that wretched cottage, amid those gross and mean surroundings that made the reality *to which* his brilliant prospects *had declined*. (1822 linton 1885 - the autobiography of christopher kirkland 1-3.txt)

- c. Next time the Head Royal and Matrimonial Valet got to her with provisions, she begged him for the future to let her always have with the supply *what* she had hitherto *declined*, a vase of guggle-ooze. (1837 webster - 1884 daffodil and the croxaxicans.txt)
- d. *The minnows* she *declined*, as politely as she could: “They are very fine and very fresh, I am sure,” she said. “But I am not used to them quite so underdone.” (1837 webster - 1884 daffodil and the croxaxicans.txt)
- e. In the spring of 1831, more than five years after Theobald had first walked over to Crampsford, *one of the best livings in the gift of the College* unexpectedly fell vacant, and *was* for various reasons *declined* by the two fellows senior to Theobald, who might each have been expected to take it. (1835 butler 1903 - the way of all flesh.txt)
- (77) ... she was well content, as she said, to leave me to my own good sense and honour; only begging me always to tell her of my intention beforehand. *This pledge*, however, for her own sake, I *declined to give*;... (1825 blackmore 1869 - lorna doone.txt)

Also present were a number of insertions – two involving an *NP* and two involving a *to*-infinitive:

- (78) The Stranger had his wine-glass raised in his hand. “Our dear Paul,” the Stranger was saying, “*has declined*, with his customary modesty, *any public recognition of his triumph*. ... ” (1859 jerome 1909 - they and i.txt)
- (79) When we *decline* (in a marked manner) *to fly* the red flag and fire across a barricade like our grandfathers, are we really declining in deference to sociologists—or to soldiers? (1874 chesterton 1912 - what’s wrong with the world.txt)

As was the case with extractions, insertions are now explicitly encountered with *to*-infinitives, unlike in the two previous subcorpora. Insertions and extractions are summarised in the table below.

Table 18: Extractions and insertions in the 3<sup>rd</sup> part of the extended CLMET (1850–1920)

Pattern involved	NP	PP	to-inf	Total
Extractions	7 (1.1)	1 (0.2)	4 (0.6)	12 (1.9)
Insertions	2 (0.3)	-	2 (0.3)	4 (0.6)

Similarly to the previous sections of this examination, the semantic distribution has been summarised in the following table.

Table 19: Sense distribution of *decline* between complementation patterns in the 3<sup>rd</sup> part of the extended CLMET (1850–1920)

sense	I	II	III	IV	V	Total
∅	-	26 (13.1%)	14 (7.1%)	-	-	64 (23.6%)
NP	-	-	46 (23.2%)	-	1 (0.5%)	47 (23.7%)
to-inf	-	-	92 (46.5%)	-	-	92 (46.5%)
-ing	-	-	10 (5.1%)	-	-	10 (5.1%)
in NP	-	2 (1.0%)	-	-	-	2 (1.0%)
into NP	-	1 (0.5%)	-	-	-	1 (0.5%)
to NP	1 (0.5%)	3 (1.5%)	-	-	-	1 (1.0%)
upon NP	-	3 (1.5%)	-	-	-	1 (0.4%)
<b>Total</b>	1 (0.5%)	35 (17.7%)	162 (81.8%)	0	1 (0.5%)	198 (100.0%)

It would appear that the sense of *decline* in relation to its complement selection has remained relatively stable between the second and third subcorpora, continuing the trend already seen between the first and the second datasets. The most significant sense-internal change is the decrease in the ratio of *NP* complements within sense III; it is now only 23.2 per cent, as opposed to the earlier 45.3 per cent. They have mostly given way to sentential complements, which now cover over half of the data.

Example sentences of each subsense are given in the table below.

Table 20: Example illustrations of the different senses of *decline* in the 3<sup>rd</sup> part of the extended CLMET

Sense	Pattern	Example
<b>I To turn aside, deviate.</b>		
4. <i>fig.</i> To incline or lean <i>to</i> . <i>Obs.</i>	to NP	In the present epoch observation declines relatively to books; books and pictures, these dumb impersonal initiators, play a larger and a larger part in this great awakening. (1866 wells 1902-3 - mankind in the making.txt)

Sense	Pattern	Example
5. To deviate from the horizontal or vertical position; to have a downward inclination, to slant or slope downward.	to NP	The traveller, descending from the slopes of Luna, even as he got his first view of the Port-of-Venus, would pause by the way, to read the face, as it were, of so beautiful a dwelling-place, lying away from the white road, at the point where it began to decline somewhat steeply to the marsh-land below. (1839 pater 1885 - marius the epicurian - vol. 1.txt)
	into NP	... a little child took possession of his hand, and, looking up at him with entire confidence, paced on bravely at his side, for the mere pleasure of his company, to the spot where the road declined again [160] into the valley beyond. (1839 pater 1885 - marius the epicurian - vol. 1.txt)

## II To slope, incline, or bend downward.

8a. Of the sun or other heavenly body: To descend in the sky after culmination; to sink towards setting.	∅	He wanted to live now, to win at tennis, to stand for all he was worth in the sun—the sun which had begun to decline and was shining in her eyes; and he did win. (1879 forster 1908 - a room with a view.txt)
9. <i>fig.</i> To fall morally or in dignity, to sink (to evil courses, etc., or to an unworthy object). (Now only <i>literary</i> , and after Shakes.)	upon NP	Hard to himself, he seemed at times, doubtless, to decline too softly upon unworthy persons. (1839 pater 1885 - marius the epicurian - vol. 1.txt)
10 <i>fig.</i> To fall off, fail, decay, wane, diminish, decrease, deteriorate.	∅	My Father's energy seemed to decline, to become more fitful, to take unseasonable directions. (1849 gosse 1907 - father and son.txt)
	to NP	It is worth notice that this number was not increased, and by the end of the Trafalgar year had, on the contrary, declined to 10. (1839 bridge 1899-1902 - sea-power and other studies.txt)

## III To cause to turn aside, to avert; to turn aside from, avoid, refuse.

13a. To turn away from (anything suggested / presenting itself)	NP	The Baggara horse, however, declined an unequal combat, and made no serious attempt to interfere with the attack. (1874 churchill 1899 - the river war.txt)
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Sense	Pattern	Example
<b>13b.</b> Not to consent or agree to doing, or to do something	∅	‘Look here! Read the letter for yourselves! Do!’ They declined, and begged him not to insist. (1857 gissing 1891 - new grub street.txt)
	to-inf.	It seems more likely that Hammuda declined to admit his right, and that the matter still stood in dispute. (1874 churchill 1899 - the river war.txt)
	-ing	“You are not a professional man, and I beg to decline answering you.” (1824 collins 1859-60 - the woman in white.txt)
<b>13c.</b> Not to accept (something offered)	NP	Gowing was rightly annoyed, but that man Padge, who having declined our modest supper in order that he should not lose his comfortable chair, burst into an uncontrollable fit of laughter at the little misadventure. (1847 grossmith 1894 - the diary of a nobody.txt)
<b>20a.</b> <i>Gram.</i> To inflect (a noun, adjective, or pronoun) through its different cases.	NP	She confounded all she was taught, and never could recollect whether the verb was conjugated and the noun declined, or whether it was the other way round, ... (1831 rutherford 1893 - catherine furze.txt)

## 5.4 Summarising the extended CLMET results

The results from the examination of the extended CLMET shows that there has been some considerable changes to the verb *decline* from 1710 to 1920. The most significant of these is that the *-ing* complement pattern, which originally was the dominant sentential complement, steadily loses ground to the *to*-infinitive complement, eventually losing to it in frequency somewhere between parts 2 and 3 of the corpus. Extractions and insertions also appear to support the initial dominance of the *-ing* complement; however, by the time of the third subcorpus of the extended CLMET, the *-ing* pattern is no longer present in extractions and insertions. Further study would be required to place the time of occurrence more accurately, but the sentential complement reversal appears to take place sometime between the late 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century.

Another noteworthy change is the emergence of the *to*-infinitive complement pattern as the most frequent complement by the time of the third part of the extended CLMET. In doing so it supersedes the previously dominant *NP* complement, which, however, remains the second most dominant around the time of the third part of the extended CLMET.

Prepositional complements of *decline* increase only slightly in frequency, but their pattern diversity flourishes throughout the data. Semantics also appears to remain more or less stable.

This concludes the examination of the extended CLMET. We will now proceed to Present-Day English and data from the BNC.



## 6 Present-day data: the British National Corpus

Due to its considerably larger size and wide range of registers and text types, the BNC enables us to examine *decline* in greater detail than the extended CLMET. It also enables us to perform tagged searches, that is, restrict searches only to those instances of *decline* that are tagged as verbs. However, as the tagging has been done partly automatically by a computer, there is a small margin of error even when one uses these tag-based searches.

The examination of the BNC began with a search comparable to those performed on the extended CLMET. A lemma search for the verb *decline* in the entire BNC yielded a total of 3,329 matches in 1,271 texts (34.1 instances per million words). As the examination of the entire dataset would have been excessively time consuming, the 3,329 tokens to 832 tokens, roughly equal to 25 per cent of all the instances of *decline* in the corpus.

The second part involved examining a small set of tokens from individual sections of the corpus in order to get a better image of the semantics of the verb and how text categories affect it.

### 6.1 An overview of *decline* in the BNC

As could be expected, the thinned selection of 832 tokens used in the study included some mistagged examples similar to those encountered in the extended CLMET – that is, instances of the noun *decline* or the adjective *declining*, such as the following:

- (80) Most species have registered *declines* of around 50 per cent. (J2U 136)  
 (81) For example, “Is the market expanding, *declining* or stable?” (GUY 2235)

The removal of examples such as the ones above reduced the number of tokens to 782 (8.01 instances per million words). If we consider the amount of correctly tagged instances of the verb *decline* as constant, we can estimate their normalized frequency to be around 32 instances per million words, which is quite similar to the frequency in the third part of the extended CLMET.

Eleven complementation patterns were identified from the BNC tokens: *decline* +  $\emptyset$  (82), *decline* + NP (83), *decline* + *to*-infinitive (84), *decline* + *in* NP (85), *decline* +

*into NP* (86), *decline + to NP* (87), *decline + towards NP* (88), *decline + by [quantity]* (89), *decline + at NP* (90), *decline + from NP* (91) and *decline + from NP to NP* (92). One of these (*decline + at NP*) was not present in the grammars or the OED. However, it appears to be quite a rare pattern, as it occurred only once in the data.

- (82) In the early 1970s some of these movements began *to decline* or were suppressed, but others continued to flourish. (H9F 181)
- (83) He had also *declined an offer* from the Law Society of a new hearing before another SCB Assistant Director. (HAJ 1716)
- (84) HDS *declined to specify* its installed X-terminal base, saying it had 200,000 units in the field, most of them serial terminals. (CSF 142)
- (85) Historians may point to the downfall of Lloyd George in 1922 and Churchill in 1945; the achievements were recognized but *declined in importance* as the electorate responded to new issues. (A6F 971)
- (86) The revenue was never enough for this, and the Company began *declining into bankruptcy* much faster than before. (CS5 687)
- (87) In the first ten years of nationalisation the proportion in fact *declined to around a third*. (CRD 717)
- (88) The trees in the grounds were in full, fresh leaf, and behind them the sun *declined towards the moorland horizon*, its rays making a brilliant silver-gold glare through the tracery. (FU2 1101)
- (89) Robert Toomey, director of 3i's Liverpool office, said large-scale buy-outs involving a syndicate of financial institutions *declined by almost 40%* in the last three years to 1991. (K97 14219)
- (90) ... Many from eastern parts and western parts will come and *decline at the table* with Abraham and Isaac and Jacob in the kingdom of the heavens... (KBX 933)
- (91) With a floating rate loan the borrower incurs uncertainty as to the loan's cost over its term but benefits if market interest rates *decline from their initial level* when the loan was granted. (B1W 1912)
- (92) ... another good sign for young people, apart from the creation of modern apprenticeships, is also the way that the numbers waiting more than eight weeks for a Y T place *has [sic] now declined from over three thousand to just over three hundred*. (JSH 178)

The following table gives the distribution of the patterns. Unlike in the extended CLMET tables, the figures have been multiplied to give an estimate of the possible frequencies in the entire BNC, assuming that the number of tokens and their forms would be constant. It is without a doubt unrealistic to assume that these figures would represent

an accurate image of the entire BNC tokenset. We may, however, still consider it a useful estimate of the entire BNC.

Table 21: Complements of *decline* in different inflectional forms in the BNC with estimated normalized frequencies

<b>pattern</b>	<b>decline</b>	<b>declines</b>	<b>declined</b>	<b>declining</b>	<b>Total</b>
∅	94 (3.9)	33 (1.4)	234 (9.6)	51 (2.1)	412 (16.9)
NP	17 (0.7)	-	53 (2.2)	5 (0.2)	75 (3.1)
to-infinitive	13 (0.5)	12 (0.5)	145 (5.9)	12 (0.5)	182 (7.5)
in NP	5 (0.2)	-	9 (0.4)	5 (0.2)	19 (0.8)
into NP	2 (0.1)	3 (0.1)	4 (0.2)	2 (0.1)	11 (0.5)
to NP	3 (0.1)	2 (0.1)	17 (0.7)	5 (0.2)	27 (1.1)
towards NP	-	-	1 (0.04)	-	1 (0.04)
by [amount]	7 (0.3)	2 (0.1)	23 (0.9)	-	32 (1.3)
at NP	1 (0.04)	-	-	-	1 (0.04)
from NP	2 (0.1)	1 (0.04)	4 (0.2)	-	7 (0.3)
from NP to NP	1 (0.04)	-	13 (0.5)	1 (0.04)	15 (0.6)
<b>Total</b>	145 (5.9)	53 (2.2)	503 (20.6)	81 (3.3)	782 (32.0)

The results of the BNC data show a considerable change in the complementation trends of *decline*. The ∅ complement pattern, which showed no considerable trend of growth in the CLMET, surfaces as the most frequent pattern. Its plotted relative frequency is around 17.0 instances per million words. This is followed by the sentential *to*-infinitive pattern, which was the dominant pattern in the third part of the CLMET. Its plotted frequency was about 7.5 instances per million words. There were also slightly more prepositional complements (113 tokens) than *NP* complements (75 tokens). Several new patterns have also emerged, including the *by [amount]*, *at NP* and *from NP to NP*.

As was already mentioned above, the *to*-infinitive was the only sentential pattern encountered amongst the 782 tokens, and thus, appears to have emerged as the sole surviving sentential pattern, as the grammatical references predicted. By performing an additional search for the pattern, however, reveals a single *-ing* complement pattern in the BNC:

- (93) ... with proper delicacy to this subject they *decline making* application at Present and till it is ascertained how cattle markets may go in June ... (FTT 821)

Nevertheless, it is quite evident that the *to*-infinitive pattern has virtually replaced the *-ing* pattern as a sentential complement for *decline*.

It is interesting to see that the *NP* pattern, too, has become increasingly rare – a trend already apparent by comparing the pattern’s frequencies across the three sub-periods of the extended CLMET. This might provide a possible explanation for the disappearance of the *-ing* complement, as it is also regarded as more nominal in nature than the *to*-infinitive (as was already mentioned in section 3.5.1).

All of the *from NP* and *from NP to NP* pattern tokens involved a number, percentage or other kind of quantity. Only four of the *to NP* pattern tokens were not quantities of any kind. As has been discussed earlier in section 4.1.2, these patterns, which somewhat resemble the *by [quantity]* pattern, are fuzzy as regards their complement–adjunct status. However, as Herbst et al. have also included such entries as complement patterns, I will also consider them as such.

A number of extractions could be found amongst the tokens. A total of 14 *NP* extractions, including 6 *which* extractions, 1 *this* extraction and 6 passivizations. One instance of *the Queen’s Gambit Declined* was also present, which I have also included as an extraction, albeit an idiomatic one. In addition to the *NP* tokens, one *PP* extraction and one sentential complement extraction was found. These are exemplified below.

- (94) a. During the interval he was in fact offered a judgeship, *which* he *declined*, but it was made clear that the government could not long countenance a Solicitor-General without a seat in the House of Commons. (FRT 149)
- b. Now they were offered the chance to nominate a Governor; *this* they *declined*, understandably in view of what had happened. (EW9 709)
- c. *An offer of the skeleton of a horse*, by a Mr Longbottom, *was declined*. (B2W 482)
- d. Secondly, his pre-match preparation was excellent with his faith in *the Queen’s Gambit Declined* rewarded by a solid score with black. (HP6 977)
- (95) In a lake with a negative K but *in which* acidifying inputs *are declining*, not only will hydrogen ion (Hsup+;) concentrations (and aluminium concentrations) decrease but so will calcium concentrations (Ca 2 +;). (GU5 147)

- (96) Novell said its discussions with AT&T over USL led the two companies to consider this and several other areas of synergy, *which they declined to innumerate*. (CSS 341)

Insertions were almost nonexistent; one token was found amongst the *from NP to NP* pattern, one amongst the *to NP* pattern and three amongst the *to*-infinitive tokens.

- (97) Indeed, instead of declining, the effect of political interest on awareness of “other” Conservative politicians actually rose from 32 per cent to 37 per cent between the Pre-Campaign Wave and the end of the campaign, and its effect on awareness of “other” Labour politicians *declined only from 38 per cent to 34 per cent*. (A62 439)
- (98) The public-sector borrowing requirement (PSBR) was forecast *to decline* in 1991 *to 13 per cent of GDP* and to reach 3 per cent by 1993 (a target which some observers dismissed as optimistic), and it was hoped to reduce year-on-year consumer price inflation to 7 per cent by the end of the same year. (HLB 3524)
- (99) A COURT in Turin, the home of Italy’s Fiat group, *declined* at the weekend *to try* Fiat’s chief executive and three senior managers on charges of violating workers’ safety statutes, citing fears of an unspecified “threat to public order”. (A3U 243)

Extractions and insertions are summarised in the following table. Again, the normalized frequency figures in parentheses are estimates of the entire BNC.

Table 22: Extractions and insertions in the BNC

Pattern involved	NP	PP	to-inf	Total
Extractions	14 (0.6)	1 (0.04)	1 (0.04)	16 (0.7)
Insertions	-	2 (0.1)	3 (0.1)	4 (0.2)

The following table presents the sense distribution of the BNC tokens:

Table 23: Sense distribution of *decline* between complementation patterns in the BNC

sense	I	II	III	IV	V	Total
∅	-	380 (48.6%)	32 (4.1%)	-	-	412 (52.7%)
NP	-	-	74 (9.5%)	-	1 (0.1%)	75 (9.6%)
to-inf	-	-	182 (23.3%)	-	-	182 (23.3%)

sense	I	II	III	IV	V	Total
in NP	-	19 (2.4%)	-	-	-	19 (2.4%)
into NP	-	11 (1.4%)	-	-	-	11 (1.4%)
to NP	-	27 (3.5%)	-	-	-	27 (3.5%)
towards NP	-	1 (0.1%)	-	-	-	1 (0.1%)
by [amount]	-	32 (4.1%)	-	-	-	32 (4.1%)
at NP	-	1 (0.1%)	-	-	-	1 (0.1%)
from NP	1 (0.1%)	6 (0.8%)	-	-	-	7 (0.9%)
from NP to NP	-	15 (1.9%)	-	-	-	15 (1.9%)
<b>Total</b>	1 (0.1%)	492 (62.9%)	288 (36.8%)	0	1 (0.1%)	782 (100.0%)

A considerable change in the sense distribution of *decline* is apparent from the data; the intransitive sense II emerges as the dominant sense, while the previously dominant sense III has reduced significantly. This kind of sense difference may be due to differences in the structure of the two corpora; the BNC consists of a wide variety of texts, both spoken and written, whereas the extended CLMET essentially consists of written prose.

Finally, the different senses encountered in the BNC are presented in the following table:

Table 24: Example illustrations of the different senses of *decline* in the BNC

Sense	Pattern	Example
<b>I To turn aside, deviate.</b>		
<b>3a.</b> <i>fig.</i> To turn aside; esp. to swerve or fall away (from rectitude, duty, allegiance, instructions, etc.). <i>Obs.</i>	from NP	Some of those, predominantly of the middle-class who had declined from religious orthodoxy, turned to cults such as spiritualism and Theosophy, which insisted upon survival in some form. (ACA 213)
<b>II To slope, incline, or bend downward.</b>		
<b>5.</b> To deviate from the horizontal or vertical position; to have a downward inclination, to slant or slope downward.	from NP	The wall, which is commonly about six feet high, declines from the perpendicular a little inward. (G1Y 846)

Sense	Pattern	Example
<b>6.</b> To bend down, bow down, droop	at NP	... Many from eastern parts and western parts will come and decline at the table with Abraham and Isaac and Jacob in the kingdom of the heavens... (KBX 933)
<b>8a.</b> Of the sun or other heavenly body: To descend in the sky after culmination; to sink towards setting.	towards NP	The trees in the grounds were in full, fresh leaf, and behind them the sun declined towards the moorland horizon, its rays making a brilliant silver-gold glare through the tracery. (FU2 1101)
<b>10 fig.</b> To fall off, fail, decay, wane, diminish, decrease, deteriorate.	∅	The average price paid by industrial and commercial consumers declined only slightly if at all in real terms over the first ten years of nationalisation, but electricity usage in industry was probably less price-elastic than in most uses, and other factors were the main stimuli to sales growth. (CRD 1004)
	by [quantity]	Monthly car payments declined by about 40 per cent, the OECD notes. (AAA 174)
	from NP	With a floating rate loan the borrower incurs uncertainty as to the loan's cost over its term but benefits if market interest rates decline from their initial level when the loan was granted. (B1W 1912)
	from NP to NP	The number of half-yardlanders had declined from twenty-eight to twenty, for three had enlarged their holdings and five had relinquished some of their property. (HWD 468)
	in NP	The market has now declined in importance, due to the inability of authorities to borrow and the unpopularity of the assets with investors uncertain about the future of local authority finance. (H7T 1576)
	into NP	This was a real benefit, and helps to explain why so many medieval campaigns rapidly declined into a series of fruitless sieges and failed to lead to any deep penetration of enemy territory. (BMV 1057)

Sense	Pattern	Example
	to NP	The school had begun to fail in the forties and fifties and the number of pupils declined to fifteen , to ten, to three. Long gone were the days when they employed four teachers. (EDN 340)

### III To cause to turn aside, to avert; to turn aside from, avoid, refuse.

<b>13a.</b> To turn away from (anything suggested / presenting itself)	NP	“If it is three billion guilders up front, it is an incredible deal,” one London-based analyst who declined identification exclaimed to Reuter. (CPP 26)
<b>13b.</b> Not to consent or agree to doing, or to do something	∅	It met with some success, and on 19 June 1890 the Kensington Burial Board discussed the possibility of the Guardians of the Poor using such wicker baskets for pauper burials, but the Board of Guardians declined owing to their cost. (CD3 1327)
	to-inf.	The Mersey Docks and Harbour Company last night declined to comment. (K97 11739)
<b>13c.</b> Not to accept (something offered)	NP	... we invited both the Oxford Bench and the Magistrates Association to discuss the complaints from Thames Valley Police in more detail but they declined our offer. (K1N 3119)
<b>13d.</b> <i>Chess.</i> To refuse to take a piece or pawn offered in (a gambit).	NP	Secondly, his pre-match preparation was excellent with his faith in the Queen’s Gambit Declined rewarded by a solid score with black. (HP6 977)

### V To inflect grammatically

<b>20a.</b> <i>Gram.</i> To inflect (a noun, adjective, or pronoun) through its different cases.	NP	Conjugating verbs, declining nouns , memorising lists of vocabulary items, may all form part of language study, but their contribution to speaking ability is relatively minor. (H0J 136)
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## 6.2 Sense distribution of *decline* amongst the BNC categories

As the previous section illustrated, the overall picture of the BNC suggests that a sense shift has occurred between the data from the third part of the extended CLMET and the BNC, making sense II of the *OED* the dominant pattern of Present-Day English. In an attempt to see how the sense distribution of *decline* was affected by the type of text the word was used in, I performed an additional search focusing on the sense of the word in



each category. The following table illustrated how the 3,329 tokens have been distributed amongst the text categories. Text categories are given in descending order according to the raw number of tokens. As previously, normalized frequencies are given in parentheses.

Table 25: *decline* in the text categories of the BNC

Category	No. of words	No. of hits
<b>Written:</b> World affairs	17,132,004	1,023 (59.71)
<b>Written:</b> Social science	13,906,177	668 (48.04)
<b>Written:</b> Commerce and finance	7,257,529	398 (54.84)
<b>Written:</b> Applied science	7,104,636	368 (51.8)
<b>Written:</b> Leisure	12,185,390	283 (23.22)
<b>Written:</b> Imaginative	16,386,486	204 (12.45)
<b>Written:</b> Arts	6,520,625	146 (22.39)
<b>Written:</b> Natural and pure sciences	3,784,273	122 (32.24)
<b>Written:</b> Belief and thought	3,007,244	61 (20.28)
<b>Spoken</b>	10,341,729	56 (5.41)

A thinned selection of 75 tokens was taken from each text category, except in categories with less than 75 tokens, of which the entire set was taken. I then proceeded to assign each of these tokens into the five main *OED* senses of *decline*. Naturally, some falsely tagged tokens reduced the number in several of these batches. The results are given below.

Table 26: Sense distribution of *decline* in the text categories of the BNC

Category	I	II	III	IV	V	false
World affairs	-	40 (53.3%)	30 (40.0%)	-	-	5 (6.7%)
Social science	-	49 (65.3%)	23 (30.7%)	-	-	3 (4.0%)
Commerce and finance	-	52 (69.3%)	16 (21.3%)	-	-	7 (9.3%)
Applied science	-	54 (72.0%)	17 (22.7%)	-	-	4 (5.3%)
Leisure	-	26 (34.7%)	44 (58.7%)	-	-	5 (6.7%)
Imaginative	-	13 (17.3%)	59 (78.7%)	-	-	3 (4.0%)
Arts	-	33 (44.0%)	37 (49.3%)	-	1 (1.3%)	4 (5.3%)
Natural and pure sciences	-	58 (77.3%)	12 (16.0%)	-	-	5 (6.7%)

Category	I	II	III	IV	V	false
Belief and thought	1 (1.6%)	40 (65.6%)	17 (27.9%)	-	-	3 (4.9%)
Spoken	-	34 (60.7%)	17 (30.4%)	-	-	5 (8.9%)

As the figures above show, the majority of the text categories agree with the results obtained in the previous subsection; sense II is, in fact, dominant in 7 out of 10 categories. However, the the remaining three categories (Leisure, Imaginative and Arts) appear to suggest that the sense distribution remains more in line with the results obtained from the extended CLMET. In fact, the category which perhaps is closest to the texts of the extended CLMET (Imaginative) has been distributed amongst senses II and III almost identically with the extended CLMET.

The sense of *decline* appears to be especially biased towards sense II in texts related to commerce and sciences. This is not completely surprising, as sense II is used extensively in statistics when speaking or writing about something reducing in value, percentage, number or the like. It is also apparent that as the text category changes towards less statistics-favouring categories, sense III of *decline* gains more and more ground. Consequently, with the current set of data, one may conclude that although it appears that sense II has, in fact, gained some ground compared to earlier data, the semantic changes of *decline* may have been less dramatic than our earlier examination led to suspect if we take the divergent contents of the corpora into account.

In order to get a better image of any possible semantic changes of *decline* from the 18<sup>th</sup> century onwards one would require further research with a larger corpus of the Late Modern English period. Furthermore, this corpus would need to have better representativeness of non-prose text categories, such as academic and scientific texts, for instance.

### 6.3 Summarising the BNC results

The examination of the BNC tokens shows that the  $\emptyset$  complement is the most frequent complement pattern. In addition to this, the *NP* pattern, which was very frequent in Late Modern English, has become the least frequent complement pattern. Prepositional

patterns show increased use and diversity, with several new patterns compared to earlier data.

A number of reasons may have affected the disappearance of the *-ing* complement. These include a possible increased emphasis on the the temporal relationship between *decline* and its complement; *decline*, as an action, generally precedes the action denoted by its complement, making the *to*-infinitive the logical complement choice, as was pointed out in section 3.5.1. Similarly, Allerton's *infinitivitis*, discussed in section 3.5.3, could be regarded as a partial reason for the disappearance of the *-ing* complement, as *decline* is relatively formal in nature and used widely in the written register. Furthermore, we may note that the *NP* complement has decreased in parallel with the more nominal *-ing* complement (as opposed to the more verbal *to*-infinitive complement), so it is also possible that the changed usage of one pattern may have affected the other.

The semantics of *decline* show that in general, the dominant sense is the *OED* sense II, with III being the second most dominant. However, an additional search suggested that this trend is only true in text types not resembling prose, in which the situation appeared to be mostly the same as in the extended CLMET, with sense III being the dominant sense. Consequently, any possible semantic development of *decline* remains unclear, and would require additional examination to become clear.

## 7 Conclusion

This thesis aimed to examine the use of the verb *decline* in the past centuries, especially focusing on looking into its choice of complements. As previous sections have shown, the verb has, indeed, undergone a number of changes during the period from 1710 to the present day.

Firstly, the *NP* complement, the dominant pattern in Late Modern English, has steadily lost ground to other patterns, and by the time covered by the BNC data it has become the least frequent complementation pattern of *decline*. Amongst the patterns that have profited from the declined use of the *NP* two types of complements are perhaps the most noteworthy: sentential complements and the  $\emptyset$  complement, which emerged as the dominant pattern of Present-Day English.

Another considerable change in the complementation of *decline* has been the steady loss of one of the sentential complement patterns – the gerund, or the *-ing* complement. This pattern, which originally dominated the sentential complement patterns during 1710–1780 declined considerably in frequency during 1780–1850 and eventually became second to the *to*-infinitive complement during 1850–1920. By the time of the late 20<sup>th</sup> century, the *-ing* complement has virtually disappeared. This essentially shows a reversal of the *Great Complement Shift* in which a verb whose sentential complementation reverts from the newer and more nominal gerund complement back to the older and more verbal *to*-infinitive.

The most likely reason for this change is the semantics distinguishing the *to*-infinitive from the gerund; although the gerund was originally preferred in verbs of negative implicative nature, as has been pointed out, this appears to have given room to the *to*-infinitive, which more accurately conveys the unrealized nature of the complement of *decline*.

One might also claim that Allerton's *infinitivitis* has affected the complement selection of *decline*. This is supported by the idea that *decline* is very formal in nature and used extensively in written language. Another consideration which we also might include is the theoretical possibility that the declining *NP* complement, which is etymologically related to the *-ing* complement, may perhaps have played some minor role in the decline of

the *-ing* complement. However, considering that the *-ing* form has disappeared instead of merely decreasing in usage, the choice of the *to*-infinitive due to semantic reasons appears to be the most plausible explanation.

Prepositional complements of *decline* have increased to some extent over the years, although their use remains relatively marginal even in Present-Day English. The data shows that the number of distinct prepositional complement patterns appears to have increased over time. However, as these are marginal phenomena, a larger amount of data would be required to perform more detailed examination of prepositional complements of *decline*.

The semantics of *decline* have remained more or less stable, at least from 1710 until 1920; the dominant sense has constantly been sense III of the *OED*, with sense II being the secondary sense of the verb. The remaining senses I, IV and V have constantly been marginal in usage. Data from the BNC shows that in Present-Day English the dominant sense is II, with III being the secondary one. Whether this was an actual semantic shift, however, could not be confirmed, as the contents of the BNC differ from the extended CLMET. A brief text category examination showed that *decline* may not have undergone any significant semantic changes in those text categories which are relatively close to the text genre of the extended CLMET. This is one aspect which calls for additional research using a larger and broader corpus of Late Modern English than the extended CLMET.

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## Corpora

*The British National Corpus*.

*The Corpus of Late Modern English Texts*, extended version.