A Corpus-Based Study of the Complementation Patterns of the Verb
rejoice from the 18th Century to the Present Day

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Tämä Pro Gradu -tutkielma käsittelee englannin kielen verbin *rejoice* ja sen taivutettujen muotojen *rejoiced*, *rejoicing* sekä *rejoices* komplementaatiota 1700-luvun alusta nykypäivään. Tutkimukseni tavoitteena on antaa kattava selvitys kyseisen verbin valitsemista komplementeista, sekä kartoittaa muutoksia, jotka ovat tapahtuneet verbin *rejoice* komplementaatiossa vuosien saatossa.

Tutkimukseni aineistona käytän korpusesimerkkejä kahdesta eri korpuksesta: The Corpus of Late Modern English Texts (CLMET), ja The British National Corpus (BNC). CLMET koostuu pääasiassa kaunokirjallisista teoksista, ja tutkimuksessani käytän korpuksen kaikkia osia, jotka yhdessä kattavat ajanjakson 1710-1920: CLMET 1(1710-1780), CLMET 2 (1780-1850), sekä CLMET 3 (1850-1920). Osista 1 ja 3 käytän korpuksen laajennettua versiota The Corpus of Late Modern English Texts Extended Version (CLMETEV). BNC sisältää monia eri tekstilajeja, ja ajallisesti se sijoittuu vuosiin 1960-1993. Näiden kahden korpusten vertailun mahdollistamiseksi BNC rajattiin kaunokirjallisuuteen (imaginative prose). Tämän lisäksi vertailen keskenään BNC:n tekstityyppejä formaalit asiatekstit (world affairs) sekä uskonnolliset tekstit (belief and thought) tuodakseni esiin komplementaatioeroja eri tekstilajien välillä. Asiatekstit ovat vuosilta 1975-1993.

Tutkielmani ensimmäisessä osassa tarkastelen komplementaation kannalta keskeisiä teorioita ja korpuslingvistiikkaa, sekä perustelen korpusmateriaalin käyttöä tutkimusaineistona. Lisäksi tutkin sanakirjojen ja kielioppiteosten avulla, millaista tietoa verbistä *rejoice* on ennestään saatavilla. Tutkielman analyysiosassa kartoitan korpusesimerkkien avulla verbin kanssa käytettyjä komplementteja, sekä tutkin niissä tapahtuneita kronologisia muutoksia vuodesta 1710 nykypäivään.

Aineistosta selviää, että yleisin komplementti verbille *rejoice* on *in*+NP vuodesta 1710 nykypäivään, mutta verbin käyttö ilman komplementtia on myös erittäin yleistä. Huomionarvoista on myös se, että *rejoice* on suosituimmillaan vuosina 1710-1850, jonka jälkeen sen käyttö vähenee merkittävästi nykypäivään asti. Nykyenglannissa se esiintyy eniten uskonnollisissa konteksteissa. Korpusesimerkkien mukaan verbin yleisin merkitys on *olla mielissään.*

Asiasanat: rejoice, komplementaatio, korpus, verbi

Contents

1 Introduction

In the field of linguistics, complementation has recently become a growing area of interest, especially since the use of corpora has been acknowledged as a valid method of gathering information, although it is a relatively new way of acquiring data. Personally, I find this kind of research interesting, chiefly because corpus data gives a good representation of the use of language and expressions within a specific timespan, as well as presenting frequent constructions of written language in various texts.

In this Pro Gradu thesis, I will investigate the complementation patterns of the verb *rejoice,* using three domains of the British National Corpus and the Corpus of Late Modern English Texts (original version and the extended version), which covers texts from 1710 to 1920. First, I will present some relevant theories and the uses of the CLMET and the BNC, with emphasis on the kinds of research projects they are suitable for, and discuss the impracticalities connected with the use of these particular corpora. Then I will move on to discuss complementation in general, emphasizing the division between complements and adjuncts. In the fourth chapter of this thesis, I will turn to dictionaries such as the *OED* and *Collins Cobuild Advanced Learner's Dictionary* to examine the definitions and senses of the verb *rejoice.* In addition, I will look into grammars and the linguistic literature to investigate what has been said about *rejoice* in earlier academic studies, concentrating on the frequent patterns of complements in general and specifically those of *rejoice*. In chapter five, I will take a look at the original data from the CLMET/EV, all three parts, as well as the British National Corpus, and discuss the findings. I will emphasize specifically the kinds of complements that *rejoice* takes and their frequencies, trying to observe whether any new patterns can be discovered that were not introduced in the grammars or dictionaries used. I will also discuss the factors that influence the choice of complement for *rejoice*, and see whether the data reveals any violations or tendencies that contradict the theories of complementation. Also, the main chronological changes and differences between the sub-corpora will be discussed and compared to the general rules of complementation.

2 Corpus Linguistics

In this chapter I will introduce the field of corpus linguistics and discuss the conventions associated with using corpora as a means of investigating language. First, I will define *corpus* and give arguments for its use, as well as criticize the deficiencies connected with relying on electronic databases in language research. Then I will move on to introduce the two corpora used in this study, the British National Corpus and the Corpus of Late Modern English.

2.1 What are corpora?

A corpus can be described as a 'collection of texts assumed to be representative of a given language put together so that it can be used for linguistic analysis' (Tognini-Bonelli 2001, 2). Furthermore, an essential feature of corpora is the fact that they are obtainable in machine-readable form (Svartvik 1992, 7). In practice, a certain component of language under research can be retrieved from a corpus illustrating also the sentence that it occurs in. More importantly, we not only get the frequency of certain words, but also the collocation, i.e. the 'recurrent co-occurrence of words' (Tognini-Bonelli 2001, 89). Thus, the collocation of a certain word gives us an insight of the patterns that repetitively occur with that word. Nevertheless, corpus work is a relatively new area of study, since the use of corpora as a means of conducting linguistic research began in the early 1960's, and has since developed extensively and gained interest among scholars (Svartvik 1992, 7-8). Therefore, it has become an important and a necessary tool of language research. According to Biber (2010, 159), corpora support empirical approaches to language research, mainly because they allow us to examine 'the actual patterns of use in natural texts'.

A corpus is not just any set of texts that have been put together in electronic form. The compiling process of corpora requires some planning. In most cases the language that comprises a corpus is assumed to be naturally occurring, and the corpus is compiled by adhering to specific criteria, which are created to serve the function that the corpus is designed for (Tognini-Bonelli 2001,

2). Since corpora may have several functions and purposes of use, it is usually possible to modify and limit a corpus search to better suit one's research. For instance, in the BNC one can conduct a search limited only on spoken or written texts of the entire corpus, and so on.

Biber (2010, 160) recognizes two different types of corpus research; corpus-based and corpus-driven approaches. The Corpus-based approach is interested in systematic patterns as a way of describing the uses and variations of a certain linguistic feature (ibid., 163). The Corpus-driven approach, however, aims at identifying 'linguistic categories and units that have not been previously recognized' (ibid., 168). The corpus-driven approach can be seen as the more innovative type, since its interest lies in discovering new linguistic features and assuming a pioneer mentality to language research (ibid.). Since this thesis examines the frequent complementation patterns and uses of a specific verb, it is safe to say that the approach assumed in this study is corpus-based.

2.2 Issues relating to using corpora

In the field of English linguistics, the traditional Chomskyan (generative) thinking has contributed vastly to the progress of the scientific study of language. As Chomsky believes in native speaker intuition and introspective data (highly subjective) as valid sources of information, relying on corpus data is often viewed as a contrasting method of research (Leech 1968, 87). Chomsky embraces introspection, stating that corpus evidence is remote from a theory of linguistic competence, by which he means that the features of natural language, such as false starts, do not conform to the rules of grammar (ibid., 89). However, there are some undeniable advantages to using corpora in linguistic research. According to Svartvik (1992, 8-10), the use of corpora more likely leads to objective statements in comparison to introspection. Corpus data also guarantees the verifiability of the scientific research, and provides the frequency of occurrence for individual linguistic features. In addition, corpora are essential in studies of dialects, registers and styles, as they provide actual examples and a theoretical source. Corpora are also freely available, and they are ideal for non-native speakers of English who often benefit from learning the collocations of specific words or patterns (ibid.). However, although the advantages of corpora and the caveats of introspection are well known, there are weaknesses in using corpora as well.

When using corpora as a source of data, one needs to be aware of its contents and structural characteristics. Careful manual analysis is crucial as well, since raw numbers can be misleading and induce false conclusions (Lindquist 2009, 10). Corpora are also often criticised of being a finite presentation of an infinite phenomenon, and thus they can never store the entire contents of a language. In addition, there is always the need of a theory of language in corpus work in order to be able to disregard insignificant results and analyse the relevant findings (ibid.). It is also important to note that as any other human made software, corpora too are susceptible to all kinds of errors, especially when dealing with ambiguous structures and tags (Biber et al. 1998, 262).

When discussing deficiencies connected with the use of corpora, Ball (1994, 295) concentrates on the concepts of *recall* and *precision*, which are 'the measures of retrieval effectiveness', used in order to estimate how well the corpus satisfies the purpose it is used for. Precision is 'the proportion of retrieved material that is relevant', while recall is 'the proportion of relevant information that was retrieved' (ibid.). Precision of 100% means that we would find exactly what we were looking for, no more or less. However, in corpus research, precision is never perfect, and we often have to judge whether all the tokens retrieved are relevant to the study in question (ibid., 296). The problem with recall is that one would have to go through the entire corpus manually in order to know whether or not relevant tokens have been missed. When dealing with a large corpus this would obviously be too arduous and time-consuming to conduct (ibid., 295). Precision and recall influence each other, since errors in precision often lead to decrease in recall (ibid.).

Rissanen (1989, 16) has also discussed the ways in which there may be disadvantages in corpora, stating that there are three main issues: pedagogical, methodological and pragmatic. According to Rissanen, the pedagogic problem of using electronic databases as sources of information is that it discourages students from familiarizing themselves with the original texts (ibid.). Therefore, there is the fear of future linguists becoming scientifically less credible. However, the input of new technologies should be seen as positive assets augmenting old technologies, making unrestricted access and vast analytic power possible (Tognini-Bonelli 2001, 5). Rissanen (1989, 17) describes the methodological problem of corpora as the erroneous assumption that corpus data presents 'an accurate reflection of the entire reality of the language it is intended to represent'. However, as stated earlier,

since corpora are compilations of texts, they can never represent the entire content of a language. As Mukherjee puts it, 'absolute representativeness is an unattainable aim' (2004, 114). The third deficiency of corpora discussed by Rissanen (1989, 18) is a problem he refers to as 'the mystery of vanishing reliability'. This is connected with detailed textual coding, and results in difficulties in maintaining 'the reliability of the quantitative analysis of less frequent syntactic and lexical variants' (ibid.). The problems discussed by Rissanen are relevant especially when dealing with diachronic corpora, such as the ones used in this study. However, I will go into the issues of disadvantages and advantages related to the British National Corpus and the Corpus of Late Modern English Texts in more detail in the upcoming sections.

2.3 Normalizing frequencies

The core of corpus linguistics is to count and compare features of language in order to make conclusions of language use based on them. Therefore, it is important to make sure that the counts are comparable with texts from other corpora (Biber et al. 1998, 263). When making comparisons of texts, it is essential to notice that not all texts in corpora are the same length. For example, if we analyse the frequency of *to*-infinitive complements of a certain verb in two different texts and discover that both have 50 occurrences, it would be incorrect to conclude that they are equally frequent in both texts. This is because it is possible for the texts to be of completely different lengths. Therefore, if one text is longer than the other, there are more opportunities for the *to*-infinitives to occur, making raw counts inaccurate (ibid.). The technique of adjusting raw frequency counts from texts of different lengths in order to make them comparable is called 'normalization' (ibid.). In normalization, we multiply the total number of occurrences of a given feature of language by a predestined number – one million is the standard number used in corpus linguistics, and it will also be used in this study – after which we divide it by the total number of words in the corpus in question. As a result we get the normalized frequency (NF), which indicates the number of occurrences per one million words. For example, if we were to study the frequency of the word *accident* (6298 hits) in the BNC (98,313,429 words), we would get the following calculation:

$$(6298/\ 98{,}313{,}429) \times 1{,}000{,}000 = 64.06 \ \textit{words per million} \ (NF)$$

As we can see, the resulting NF is 64.06, which means that there are 64.06 occurrences of the word *accident* per million words in the BNC.

2.4 The corpora used in this study

In this section I will introduce the two corpora used in this study, the Corpus of Late Modern English Texts and the British National Corpus. The data used in this study is retrieved from three domains of the BNC and all three parts of the CLMET. Since the number of tokens involving the verb *rejoice* was quite low in the original version of the CLMET, the tokens for the first and third parts of the corpus will be drawn from the extended version. However, as the second sub-section of the corpus succeeds in providing a sufficient amount of tokens, I will use the original version for the second part. The numbers of relevant tokens retrieved from each part of the corpus are quite comparable, with 137 tokens drawn from the CLMETEV 1, 182 from the CLMET 2 and 167 from the CLMETEV 3.

In order for the data to be mutually comparable, the BNC data was limited to three domains: Imaginative prose, World affairs and Belief and thought. Of these I will make two different comparisons: first, between the historical data taken from the CLMET and the BNC sub-section Imaginative prose, and secondly between World affairs and Belief and thought. This is done mainly in order to research both the chronological changes within one text type (fiction) as well as the differences in complementation that stem from the qualities of two different text types (informative and religious). The BNC offers a somewhat smaller amount of tokens to analyse, with 78 relevant tokens for the domain of Imaginative prose, 63 for World affairs and 71 for Belief and thought.

2.4.1 The Corpus of Late Modern English Texts

The Corpus of Late Modern English Texts (CLMET) is based on texts drawn from the *Project Gutenberg* and the *Oxford Text Archive*, and it consists of three parts, each covering a period of seventy years, 1710-1780, 1780-1850, and 1850-1920, respectively. Thus, the entire corpus consists

of texts from 1710 to 1920 (De Smet 2005, 70). To increase the homogeneity within each part and to correspondingly decrease the homogeneity between the parts, the texts included in each part are written by 'authors born within a correspondingly restricted time-span', 1680-1750, 1750-1820 and 1820-1890, respectively (ibid., 70-71). This also presents some problems, since the texts of an author might fall outside the corresponding time-span, in which case his/her work is not allowed to be included in the corpus (ibid., 70). However, not only should this principle remove the emphasis on any author since an author can only be represented in one section out of the three, but it should also reveal structural differences and 'historical trends' in the constructions of the texts from different parts of the corpus (De Smet 2005, 70). It is also important to note that the corpus comprises only British native speakers of English, mainly in order to avoid significant dialectal variation and to allow comparisons between other corpora of British authors (ibid., 71). In addition to these restrictions, the amount of text from each author is limited to 200,000 words. This is done largely to avoid the bias of idiosyncratic language use of individual authors. However, compared to other corpora the limit is a reasonably free cut (ibid.). The corpus make-up has also paid some attention to avoid the biasing of literary and formal texts written by male authors who belong in the higher class, or as De Smet puts it, 'the better-off layers of 18th and 19th century English society'. This is done by consciously favouring women authors, lower register texts and non-literary texts (ibid., 71-72).

Even though corpora are often criticized for their inadequacies or unsuitability for different kinds of academic research, there are many advantages connected with the use of the CLMET. Firstly, the corpus is easily accessible, and compared to the size of other similar corpora, the CLMET comprises a fairly large amount of words; almost ten million (De Smet 2005, 78). Also, the corpus is not fixed, i.e. texts can be added to or removed from the corpus conveniently to suit one's purposes, thus the corpus is capable of growing, which will possibly enable it to be used in those kinds of research studies for which corpora have not been used before (ibid.). The CLMET is suitable for studies that are concerned with matters such as syntactic constructions and phenomena between grammar and the lexicon (ibid.). However, there are still some notable disadvantages in the CLMET, which make it currently unfit for some studies. As the CLMET includes mostly novels and formal literary texts from male authors (despite the favouring towards the opposite), it is not ideally made-up.

The corpus continues to be biased in the form and the genre of the texts, as well as in the sociolinguistic backgrounds of the authors, which 'makes it unfit for any fine-grained sociolinguistic analysis' (ibid., 78-79). However, for the purpose of this study it is suitable, since complementation deals with constructions in language, a matter which is unlikely to attract editorial interventions of any kind.

2.4.2 The British National Corpus

The British National Corpus (hereafter BNC) offers the Present-day English data for this study. According to the BNC reference guide (2007), the intended uses for the corpus include the likes of language teaching, linguistic research and natural language processing. Hunston (2002, 117) is of the opinion that the BNC can be seen as 'a repository of cultural information about society as a whole', which is reflected in the vast variety of text types it contains. The BNC is comprised of almost 100 million words, of which 90 per cent represents written texts and 10 per cent spoken. The written part of the corpus is made up of 4049 different texts, and the amount of words taken from each text does not exceed 45,000 words. Also, fictional texts in the corpus date from 1960 onwards, and the informative texts from the 1975 (ibid.). The written part of the corpus is divided in various sections according to the text type or genre, including domains such as imaginative prose, social science or commerce and finance. In addition, one is able to modify the search by choosing publication date, medium of text, perceived level of difficulty, or the sex of the author, to name a few. This helps to improve precision, so that it is more likely to find what we are looking for. However, as computers are not perfect, tagging and parsing properties may in fact ignore relevant information, which is one of the reasons why complete trust in corpora is not encouraged.

Errors in corpora are inevitable, and the BNC is not an exception of this. In the case of a large corpus such as the BNC, quite a number of various problems stem from the high degree of automation in the compilation process (Hoffman et al., 2008, 43). According to Hoffman et al. (ibid, 44), some of the main types of error connected with the written part of the BNC are prescriptive errors such as non-standard grammatical uses, production flaws such as typos or other human errors, and duplicated

material that originate from the fact that many texts belong to several text types. In addition, as the BNC is a tagged corpus, there are some mistakes in the part-of-speech annotation, since it has been done automatically (ibid.). In spite of the errors in the BNC, there is also another important matter to discuss regarding the corpus as a representation of present-day English. Given that all of the texts in the BNC are approximately 15- 50 years old, it may not be a good source to investigate the most recent lexical developments in English. As Pearce (2008, 6) claims, 'the BNC is becoming a historical corpus', with some lexical information out of date. However, as other features of language, such as the grammar, change quite slowly and are somewhat more stable in nature, the BNC can still be regarded as a modern representation of the structures of language (Hoffman et al., 2008, 45). As complementation is a matter tightly connected with grammar, the BNC can well be considered as a valid source for the present-day English data analysed in this study.

3 Complementation

In this chapter, I will discuss the definitions of *complement* and *complementation* to clarify what exactly are the interests of this study. I will also present some key theories and factors that affect the choice of complement, as well as bring up the main differences between complements and adjuncts.

3.1 The study of complementation

As complementation is the topic of this thesis, it is necessary that the terms *complement* and *complementation* are clearly and sufficiently defined. Whenever seeking meanings of words, it is always a good starting point to check what dictionaries have to say about them. Thus, I will first turn to the *Oxford English Dictionary* and *Collins Cobuild Advanced Learner's English Dictionary* for definitions. First, the OED defines the term *complement* as 'to make complete or perfect, to supply what is wanting; to form the complement to'. This is close to the definition provided by Leech and Svartvik (2002, 271): 'The term "complement", in a general sense, means something that is necessary to complete a grammatical construction'. This is a very broad definition, but the *Longman Dictionary of the English Language* offers a definition more suitable to the purposes of this study: 'a word or expression added to a verb to complete what is said of the subject'. Also, *Collins Cobuild Advanced Learner's English Dictionary* has a definition also for the term *complementation*: 'In linguistics, a complementation pattern of a verb, noun, or adjective is the patterns that typically follow'.

As we can conclude from the dictionary definitions, a complement is something that cannot be left out in order for the meaning of a particular part-of-speech to be completed. The study of complementation is interested in the relationship between a particular part-of-speech that functions as the head of the sentence and the complement that follows. It is also important to note that this study is focused specifically on verb complementation, even though nouns and adjuncts can have complements as well.

3.2 Valency Theory

Valency theory, originally conceived by French linguist Lucien Tesnière, is based on the basic assumption that 'the verb occupies a central position in the sentence because the verb determines how many other elements have to occur in order to form a grammatical sentence' (Herbst et al. 2004, xxiv). These other elements are complements, thus a verb's valency is established by the number of complements it can take (ibid.). Herbst et al. (ibid.) continue by noting that there can also be other elements, 'which are not dependent on the valency of the governing verb', defined as adjuncts.

According to Herbst et al. (2004), the valency of a verb is determined by the number of its obligatory as well as optional complements. The possibility of a zero complement is recognised, in addition to the notion of a verb taking one to four complements in an active declarative clause, the terms being monovalent, divalent, trivalent and tetra- or quadrivalent, respectively (ibid., xxxii). The discussion of possible complement patterns specifically for *rejoice* will be carried out further in Chapter 4.

3.3 Differences between Complements and Adjuncts

To demonstrate the main differences between complements and adjuncts, Huddleston & Pullum (2002, 215) use the following example:

He | always | reads | the paper | before breakfast.

  C   A   P   C   A

In this example, *the paper* is a complement of *reads* and *before breakfast* is an adjunct. As we can see, the complement is connected to the verb in a way that the adjunct is not, 'they are more closely related to the verb and more clearly differentiated by their syntactic properties' (ibid.). As Huddleston & Pullum (2002, 215) point out, the relationship between an adjunct and a clause is a rather loose one, and the function of an adjunct is mainly semantic, whereas the complements are dependents of the verb, completing the verb construction. It is also notable that in this sentence both the complement *the*

paper and the adjunct *before breakfast* can be omitted without any loss of grammaticality, but I will be discussing the conventions of obligatoriness when I distinguish the differences further.

Haegeman (1991, 26) has approached this matter by concentrating on the hierarchical constituents of sentence structure. She has analysed the sentence *Jeeves will meet his employer at the castle*, in which *his employer* is a complement of *meet* and *at the castle* is an adjunct denoting place. She goes on to specify that *his employer* is a syntactic unit, a noun phrase with *employer* as its head, whereas the PP *at the castle* takes the preposition *at* as its head (ibid., 27). Huang (1996, 75) has approached this matter by distinguishing predicates that are 'classified on the basis of the complements that they C-select [Category-select]', and adjuncts whose omission does not lead to incompleteness of sentence meaning. He goes on to claim that complements 'help complete the meaning of a sentence required by a verb (ibid.).

Huddleston & Pullum (2002, 219-228) distinguish altogether eight factors that help to differentiate between complements and adjuncts. These factors are called licensing, obligatoriness, anaphora, category, position, argumenthood, selection and role. The first five of these factors deal with syntactic differences, whereas the rest have to do with semantic issues (ibid., 219). Thus, I will discuss them separately in the following sections 3.3.1 and 3.3.2.

3.3.1 Syntactic Differences

Complements require a verb that licences them, which basically means that verbs have a unique range of complements they take, whereas complements outside that range will lead to ungrammaticality, even if they would be possible for some other verbs (Huddleston & Pullum 2002, 219). This dependence between complements and their head verbs is called subcategorization, i.e. 'verbs are subcategorized according to the complementation they take' (ibid.). By this statement, Huddleston & Pullum mean that different subcategories employ certain complement patterns (ibid., 220). This idea is very close to Huang's (1996, 70) 'C-selection', also known under the term 'strict subcategorization', which means that 'lexical items may be strictly subcategorized according to the kind of categories that may occur as their complements'.

In addition to licencing, complements are differentiated from adjuncts by obligatoriness. Adjuncts can always be omitted, whereas complements are sometimes obligatory (Huddleston & Pullum 2002, 221). They (ibid.) give the following sentences to illustrate this:

(1) *She perused <u>the report</u>.*   [obligatory complement]
(2) *She read <u>the report</u>.*   [optional complement]
(3) *She left <u>because she was ill</u>.* [optional adjunct]

An omission of an obligatory complement will lead to ungrammaticality or an unsystematic change of meaning, which is not the case if an optional complement or an adjunct is removed (ibid.). Huddleston & Pullum also note that obligatoriness is a matter of the verb requiring a complement, whereas licencing is about the verb allowing a certain complement (ibid.).

One of the syntactic differences, anaphora, refers to the fact that 'anaphoric expressions are those which derive their interpretation from an antecedent' (ibid., 222). One way of distinguishing between complements and adjuncts is the *do so* test, which is based on the notion 'the antecedent for do so must embrace all internal complements of the verb' (ibid., 223). Moreover, a complement must be included in the antecedent for *do so* (ibid.). Huddleston & Pullum (2002, 223) provide the following examples to clarify this:

(4) *Jill keeps her car in the garage but Pam does so in the road.
(5) Jill washes her car in the garage but Pam does so in the road.

Thus, in the first sentence, *in the garage* is included in *do so*, so we can infer that it is a complement of *keep*. The ungrammaticality of sentence 4 stems from the fact that written out, the sentence would be read as *Jill keeps her car in the garage but Pam keeps her car in the garage in the road*, which clearly violates the phrase structure rules. In the second sentence *in the garage* is an adjunct, not being included in *do so* (ibid.).

One of the factors that can be used to distinguish between complements and adjuncts is category, which has to do with the difference of form : 'Complements are prototypically NPs or AdjPs, while adjuncts are prototypically AdvPs or PPs' (Huddleston 1984, 178). This is not a strict rule, since the relationship between form and class is not undisputed. This point is illustrated by these examples from Huddleston & Pullum (2002, 224):

(6) She writes *exceptionally clearly*.   [adjunct]

(7) They treat us *quite abominantly*.   [complement of *treat*]

Even though *exceptionally clearly* and *quite abominantly* are both AdvPs, their functions in these examples differ, i.e. the first is an adjunct, whereas the second is a complement.

The last of the syntactic factors is position, a term that refers to the positions that complements and adjuncts can take in a clause. In general, complements are more restricted than adjuncts regarding the position they can occupy (Huddleston & Pullum 2002, 225). The following illustration is presented:

(8) An old badger lived in the garden.   (Basic position)
(9) In the garden lived an old badger.   (Non-basic position)

Unlike complements, adjuncts can move more freely inside clauses, and 'occurrence in a non-basic position tends to be less restricted than with complements' (ibid.).

3.3.2 Semantic Issues

Argumenthood is one of the three semantic factors that distinguish complements from adjuncts. If we think about the initial example *He always reads the paper before breakfast*, we can distinguish a semantic predicate and one or more arguments (Huddleston & Pullum 2002, 226). In argumenthood 'the semantic predicate represents some property, relation, process, action, etc., and the arguments represent the entities involved' (ibid.). Thus, the complements *he* and *the paper* are arguments of *read*, whereas the adjuncts *always* and *before breakfast* can be interpreted as 'concerned with circumstances of the situation' (ibid.).

In addition to argumenthood, there is selection, which has to do with selection restrictions on arguments. For instance, the verb *enjoy* normally occurs with animate beings (ibid., 227). Huddleston & Pullum (2002, 227) provide the following examples:

(10) Kim enjoyed the concert.
(11) *The cheese enjoyed the cool breeze.

The first example is perfectly normal, whereas the second sentence violates selection restrictions ('The cheese' in inanimate), thus leading to abnormality (ibid.). Huang (1996, 66) has approached the

matter of thematic relations by considering the S-selection (semantic-selection) properties of predicates. He suggests that 'verbs with the same PAS [Predicate-Argument Structure] may differ with respect to the Thematic Roles that they select for their argument(s) to play' (ibid.).

In the field of semantics, the term *thematic role* refers to the connections between verbs and their arguments, i.e. a verb 'theta-marks its arguments' (Haegeman 1991, 41). Generally, every predicate has a thematic structure that is connected with the context in which the predicate occurs. This is the basic idea of Theta theory, described as 'the component of the grammar that regulates the assignment of thematic roles' (ibid.). Huang (1996, 78) emphasizes that 'only arguments enter into thematic relations with their heads', thus dividing them from adjuncts, which do not assign a sematic role denoted by the verb. As the core term in Theta theory, we can distinguish 'theme', i.e. 'the entity affected by the action or state expressed by the predicate' (Haegeman 1991, 42). Semantic roles (e.g. agent, patient, benefactive, experiencer) depend on the semantic properties of the verb, rather than on the content of the complement expression (Huddleston & Pullum 2002, 227). However, all adjuncts are usually interpreted as having the same semantic role, determined by their own content (ibid.).

Haegeman (1991, 43) also discusses the theta grid; a representation of the semantic roles that can be assigned to an argument. She illustrates the theta grid of the verb *kill*, claiming that *kill* is a two-place predicate assigning two arguments, someone who kills (an agent) and someone being killed (a patient), both of these NP's. Thus, the sentence *Maigret killed the burglar* is grammatical, whereas *Maigret killed* is not (ibid.). Since *rejoice* can occur with zero complementation, it does not require any obligatory arguments other than the subjects. In addition to the theta grid, Haegeman (1991, 45-46) considers the requirement of each predicate assigning a thematic role, summed up in the theta criterion:

> Each argument is assigned to one and only one theta role. Each theta role is assigned to one and only one argument.

This criterion is of great importance, especially when discussing semantic roles of arguments, when there are understood subjects present. Understood subjects will be discussed in the following section 3.4, as we turn to investigating the deep structures of constructions.

3.4 Control, NP movement and *rejoice*

To further discuss the underlying structure of constructions, consider the following examples from

Davies and Dubinsky (2004, 3):

a) Barnett seemed to understand the formula.
b) Barnett tried to understand the formula.

As Davies and Dubinsky (ibid.) state, these two sentences are identical if judging by their surface

structure; intransitive matrix clauses with infinitival complements. However, the underlying

difference of these two sentences stems from the choice of the matrix verb, in this case *seem* or *try*

(ibid.). Sentence (a) is an example of NP movement, thus, the verb *seem* is an NP movement

predicate. This is because there is a semantic link only between the subject *Barnett* and the embedded

verb *understand*, which is not the case in sentence (b).

In sentence (b) the verb *try* assigns two theta roles, actor (someone who tries something) and

theme (something being tried), therefore, the subject is semantically linked with both *try* and

understand. The theta role actor is assigned to *Barnett*, whereas theme is assigned to the subordinate

clause *to understand the formula*. However, the verb *understand* also assigns two theta roles, an

experiencer (someone who understands something) and theme (something that is understood). But as

we can see, *Barnett* already has a theta role, thus, assigning the role experiencer to *Barnett* would

violate the theta criterion. Therefore, there needs to be an argument to which we can assign the role

experiencer. This implicit/understood argument is often referred to as PRO. Assuming PRO, the

structure of sentence b may be represented as in b':

b') [[Barnett]$_{NP1}$ [tried]$_{Verb1}$ [[PRO]$_{NP2}$ [to]$_{inf}$ [understand]$_{Verb2}$ [the formula]$_{NP3}$]$_{VP}$]$_{S2}$]$_{S1}$

In (b'), the symbol NP2 represents the understood subject of the lower clause, to which the role of

experiencer can now be assigned. It is also significant that in this sentence *Barnett* and PRO are

coreferential, even though they are assigned differing theta roles. Also, there are two different types of

control, subject control and object control. According to Sag and Pollard (1991, 65), the semantic

characteristics of the verb dictate which control type it takes. In sentence (b'), *try* is a subject control

predicate, as the subject and PRO are coreferential.

There are a few tests to conduct in order to distinguish NP movement predicates from control predicates. First of all, the definition of a construction is dependent upon the predicate of the main clause (Carnie 2002, 262). Therefore, the first test applies a theta grid to work out the theta roles of the matrix predicates (ibid.). This test is essentially the same as demonstrated by Davies and Dubinsky. Carnie offers the following example:

1) Jean is likely to dance.
2) Jean is reluctant to dance.

As Carnie (ibid.) observes, in sentence (2) *is reluctant* is a property attributed to *Jean*. However, this is not the case in sentence (1), because the matrix predicate *is likely* does not assign an external theta role, instead, it can only be assigned to Jean's dancing. Therefore, *is likely* is an NP movement predicate and *is reluctant* requires control.

The second test to use in distinguishing between raising and control makes use of idioms. If the matrix predicate is a raising predicate, the idiom can be understood idiomatically. However, if a control predicate is embedded in an idiom it can then only be understood literally. To prove this point, Carnie (ibid.) takes the idiom *the cat is out of the bag,* which idiomatically means 'the secret is widely known', whereas the literal interpretation would be 'the feline is out of the sack'.

3) The cat is likely to be out of the bag.
4) The cat is eager to be out of the bag.

In sentence (3) the meaning may be idiomatic, thus, *is likely* is a raising predicate. However, sentence (4) is interpreted as having a non-idiomatic meaning, which labels the matrix verb *is eager* as a control predicate.

The third test has to do with whether or not the construction under investigation allows extraposition (ibid., 263). In an extraposition construction where the sentence begins with an expletive *it*, which is only allowed in non-thematic positions. Therefore, if a construction allows extraposition, it involves raising. Carnie (ibid.) offers examples to clarify this:

5) It is likely that Jean will dance.
6) *It is reluctant that Jean will dance.

In order to determine whether the verb *rejoice* involves raising or control, we shall run these three tests respectively conforming to the examples used by Carnie:

7) Jean rejoices to dance.
8) The cat rejoices to be out of the bag.
9) *It rejoices that Jean will dance.

As we can see, in sentence (7) the *rejoicing* is a property that can be attributed to *Jean*, in other words *Jean* assigns the theta role experiencer from the verb *rejoice*. This is followed by sentence (8), which can only be interpreted literally, since *the cat* no longer conveys the idiomatic meaning of 'a secret'. Also, the verb *rejoice* cannot be used in extraposition constructions, since sentences such as (9) are ungrammatical and exhibit incorrect usage of English. To conclude, according to these rules the verb *rejoice* is a control predicate, thus involving PRO. Also, *rejoice* involves only subject control, thus object control falls out of the interests of this study.

3.5 Other factors bearing on complementation

Being able to fully examine and understand the complementation patterns of a word from any part of speech, one has to get acquainted with the theories, grammatical rules and tendencies that affect complementation in general. This section will concentrate on some of those theories, rules and tendencies, as well as introduce the tendencies that affect the complementation of verbs, specifically focusing on *rejoice*.

3.5.1 The Great Complement Shift

As any other language, English too is under constant change and there are consequently significant differences in complementation as well. The change that is most relevant to our current discussion is The Great Complement Shift, originally discussed and labelled by Rohdenburg, and it can be described as 'the set of major changes in the evolving system of English predicate complementation (Rudanko 2012, 222). The most prevalent of these changes is between two patterns of non-finite sentential complementation, *to*-infinitive and gerunds[1] (ibid.). Much of the recent study of

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[1] Rohdenburg (2006, 159) makes a distinction between 'straight' and prepositional gerunds, however, it seems that *rejoice* chooses only the prepositional ones as its complement.

complementation in this area of language change has focused on the increase in the use of gerundial

complements at the expense of *to*-infinitives, as exemplified by Rohdenburg (2006, 144):

      1) She was used/accustomed to do it → He was used/accustomed to doing it.
      2) She avoided/dreaded to go there → She avoided/dreaded going there.

According to Fanego (1996, 33), the gerund began to acquire more verbal properties since the Middle

English period, which is thought to have sparked such a change in the variation of *to*-infinitives and

gerund complements. Also, the Middle English period saw another substantial change as *to*-infinitives

began replacing *that*-clauses (Vosberg 2009, 212). It has also been claimed by Vosberg (ibid., 227)

that the shift is either accelerated or delayed by extra-semantic factors such as extractions, *horror equi*

contexts and insertions or modifications, concepts that are discussed later in this chapter.

      However, as far as my work is concerned, the verb *rejoice* or any of its inflectional forms

apparently do not select a bare gerund complement over *to*-infinitives, whereas prepositional gerunds

are somewhat frequent. To investigate my intuition on this matter, the synchronic distribution of

gerund complements and *to*-infinitives will be a matter of interest in the chapter of corpus analysis.

3.5.2 The Complexity Principle

The Complexity Principle is about the factors that lead to a tendency of favouring certain competing

grammatical alternatives that involve varying degrees of explicitness (Rohdenburg 1996 [on the basis

of Hawkins' research 1990], 149). As Rohdenburg states: 'In the case of more or less explicit

grammatical options the more explicit one(s) tend to be favored in cognitively more complex

environments' (ibid., 151), and in particular:

      The less directly the dependent clause is linked to its superordinate clause or the more
      complex the dependent clause turns out to be the greater is the need to make its sentential
      status more explicit. (Rohdenburg 1995, 368)

He goes on to identify these complexity factors as discontinuous constructions, passive constructions,

and the lengths of the subjects, objects, as well as subordinate clauses (Rohdenburg 1996, 149).

Rohdenburg (1998, 104) goes on to claim that 'the rivalry between non-interrogative finite and

infinitival complement clauses is practically confined to non-directive verbs occurring without a

nominal object', a case in point of such verb being for example *promise*. Rohdenburg (1996, 151) provides an example of the matter:

1) She promised (that) she would visit me (some time next year).
2) She promised to visit me (next week).

Here we have finite and non-finite alternatives, which Rohdenburg (ibid., 152) describes as being 'sensitive to the complexity principle'. Since a finite clause is more explicit than a non-finite clause, it would be interpreted as the more formal alternative, as well as being the preferred one in a complex environment (ibid.). If we look at sentences (1) and (2) above, we can see that the adjunct *some time next year* is more complex than *next week*, so it tends to be used with the more explicit construction, in this case a *that*-clause. Since *next week* is less complex, it is used with the infinitival construction, which is less explicit. Thus, if we applied the Complexity Principle to *rejoice*, we could infer that in a complex environment, it would take the more explicit alternative as its complement, and possibly vice versa.

3.5.3 Bolinger's Generalization

Language tends to change over time in a way that is unfavourable for overlapping uses of synonymous constructions. Bolinger found that 'no surface dissimilarities have been found that could legitimately be regarded as identical in deep grammar' (1968, 122). This correlation between construction and sense is summarized in Bolinger's generalization: 'A difference in syntactic form always spells a difference in meaning' (ibid. 127).

As an example of this principle, he discusses the different uses of *for-to* and *–ing* complementizers, concentrating on the choice between these two structures according to the main verb (ibid., 122). He goes on to claim that *for-to* and *–ing* complements differ in meaning, and for that reason the choice is made in accordance with their individual characteristics. As Bolinger (ibid., 123) states, a good starting point in finding differences between these constructions is to look for minimal pairs in verbs that are capable of assigning both infinitive and gerund complements. He provides the following examples for *like* (ibid.):

3) I like him to be nice to you.
4) I like his being nice to you.

According to Bolinger (ibid.), the difference in these two sentences is semantic. He claims that (3) 'expresses the wish that someone *will* be nice', while (4) refers to someone's actual behaviour (ibid.). Allerton (1988, 14) has also commented on the choice between the infinitive and the gerund thusly: 'While the infinitive typically refers to something infrequent, unlikely, or even hypothetical, the gerund refers either to a factual event or regular series of events in the past, or to a likely future event', by which he means that infinitivals represent a semantically more hypothetical situation than gerunds. However, Duffley's (2000, 221) notion contradicts with Allerton's (1988, 14) finding of gerunds referring to the future, as he states that the *to*-infinitive is not only hypothetical, but 'denotes an event that is future and nonrealized'. He also points out that with gerunds the event is understood as simultaneous with that evoked by the head verb (Duffley 2000, 221). In addition to Duffley (2000), Smith (2009, 365) has also commented on the characteristics of *to*-infinitives saying that they are of a 'forward-looking' nature and imply potentiality and thus refer to non-realised events. Bolinger (1968, 124) offers another example with a contrast between a real event and a contingent situation:

5) I sensed him to be a bit uncertain (and sure enough he told me later he had been).
6) I sensed his being a bit uncertain (and acted to reassure him immediately).

As Bolinger (ibid.) states, (5) is an example of unconfirmed suspicion, while (6) expresses awareness of a fact. Regarding extraposition, Bolinger (ibid., 125) asserts that the infinitival construction is the only grammatical choice, unless there is 'additional modification that ties the action to a time, a place, a manner, etc.'. He goes on to conclude that there are no identical structures in the surface level of English grammar, but only slight similarities to varying degrees (ibid., 127). In the fifth chapter of this thesis, as I will analyse actual corpus data, it will be of interest to see whether *rejoice* complies with Bolinger's generalization as it is a verb that takes both infinitival and gerundial complements.

3.5.4 The *Horror aequi* principle

The *Horror Aequi* principle is defined as 'tendency to avoid use formally (near-) identical and (near-) adjacent non-coordinate grammatical elements or structures' (Rohdenburg 2003, 236). Poutsma

(1905, 619) also commented on this principle stating: 'from motives of rhetorical propriety the use of two successive gerunds or infinitives is avoided'. Poutsma's comment suggests that he realized the substance of the *Horror Aequi* principle long before it was named[2]. Rohdenburg (2003, 205) provides an example of this principle:

7) She was at a loss *to know* what *to do*/what could be done.

In this case the *to do* construction would be dispreferred, because the adjacent *to*-infinitives would violate the *Horror Aequi* principle. If we consider the prepositional gerund complements, it is probable that they are not used successively, but together with *to*-infinitives.

3.5.5 Extractions

Extractions can be interpreted as one of the crucial and significant manifestations of cognitive complexity, discussed in the previous section (Vosberg 2003, 306). Developed by Vosberg, the Extraction Principle is presented 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 topicalisation, relativization, or interrogation, etc.) from its original position and crosses clause boundaries. (ibid., 308)

Due to the Extraction Principle, it can be inferred that in a case where the alternative complements are either an infinitival or a prepositional gerund, *rejoice* would tend to occur with the infinitival complement. As a type of extraction, it is possible for sentences to 'take the form of a topic followed by a comment about the topic' (Huang 1996, 129). These are called topicalized sentences, of which Huang offers a few examples (ibid.):

8) <u>John's articles</u>, I will never read.   [NP]
9) <u>That he will rise among the best</u>, I have never doubted.   [*that*-clause]
10) <u>John</u> I am sure will be angry when he finds out about it.   [NP]

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[2]Rohdenburg (2003) has a long list of references, but appears not to have been aware of Poutsma's finding as he does not refer to Poutsma (1905) in his bibliography.

As we can see, the constructions in the topic-position are all extracted from the complements of the main verbs in these sentences. Also, in sentence (10) there is an embedded subject *John*, which separates that sentence from those in (8) and (9). However, topicalization is just one type of extraction, and according to Vosberg (2003, 307), the most common types in addition to topicalization are relative extraction, comparative extraction and interrogation, of which he offers examples:

a) **Relative extraction**:…,it is the worthy Spencer$_1$, whom, I'me sure you remember [**to have** often **heard** [me mention t$_1$ in the relation of my private misfortunes]], … (John Dauncey, *The English Lovers*, 1622)

b) **Comparative extraction**: 'Twas her Charming Face and modest Look, that represented to him a thousand more Beauties and taking Graces$_1$, than he remembered ever [**to have seen** t$_1$ in his Unconstant and Faithless Mistress]… (Philip Ayres, *The Revengeful Mistress*, 1696)

c) **Topicalization**: …even her acquaintance with the Belfield's$_1$ she remembered [not ever **mentioning** t$_1$] … (Fanny Burney, *Cecilia*, 1782)

d) **Interrogation**: Now, how many$_1$ do you remember [**to have heard named** t$_1$]? (Sabine Baring-Gould, *In the Roar of the Sea*, 1892)

As we can see from the examples above, extractions produce filler-gap dependencies, so named by Hawkins (1999, 245). Some extractions may be difficult to interpret, and as Vosberg (2003, 307) claims, 'The longer the filler-gap domain, the lower is the acceptability of the extraction'.

4 *Rejoice* in dictionaries and the literature

In this chapter of my thesis, I will take a look at what has been said about *rejoice* in earlier research studies, emphasizing the patterns distinguished by dictionaries and grammars. I will start with the etymological background of *rejoice*, then moving on to dictionaries and grammars, with emphasis on the constructions and frequencies of the complement patterns they have distinguished for *rejoice*.

4.1 Etymology

According to the *Longman Dictionary of the English Language* (1984), the verb *rejoice* is originally derived from a Latin word *gaudere* meaning 'more at joy'. It was then adopted to early French as *rejoiss-*, which is defined as the stem of *rejoir*, consisting of the components *re- + joir*, with the meaning 'to rejoice'. From French it was finally adopted to Middle English as *rejoicen* (ibid.). *The Oxford English Dictionary* has also commented on the etymological background of *rejoice*, stating that the form *resjoiss-* was also found in early French in addition to *rejoiss-*, and the later forms were *rejouir* and *réjouir*. The *OED* also notes that *joir* corresponds to *joy* (*rejoy*) and *joice* (*rejoice*, in which *joice* comes from *joiss-*, a lengthened stem of *joir*).

4.2 *The Oxford English Dictionary*

The Oxford English Dictionary lists altogether five senses for the verb *rejoice*. However, as my study concerns the era from the beginning of the 18th Century to present day, I will concentrate on the meanings from the beginning of the eighteenth century and onwards, thus the relevant senses are brought down to three. The senses are demonstrated in the following table 1, together with the complement patterns found in the *OED*.

	Sense of the Word	Illustrations	Complement Pattens found in the *OED*
I	To gladden, make joyful, exhilarate (a person, his spirits, etc.)	1712 <u>ADDISON</u> *Spect*. I love to rejoice their poor Hearts at this season. 1774 <u>KAMES</u> *Sketches (1807)* It rejoices me, that the same mode is adopted in this island. 1863 <u>COWDEN CLARKE</u> *Shaks.Char.* His body he rejoices with sack-posset. 1885-94 <u>R.BRIDGES</u> *Eros&Psyche* Too fair for human art, so Psyche thought, It might the fancy of some god rejoice.	+NP +NP+*that*-clause +NP +NP
	b. In passive. Contsr. *at*, †*in*, †*of*, etc.	1801 *Lusignan II* You do not… look half so rejoiced when we meet as I do. 1841 <u>LANE</u> *Arab. Nts*. I The King was rejoiced at seeing him	zero +*at*+-*ing*
II	*refl.*To make (oneself) glad or joyful; hence= sense III. Now rare	1876 <u>RUSKIN</u> *Fors. Clav.* Rejoice myself with a glance at the volutes of the Erectheium.	+NP [+refl.]
III	*intr.* To be full of joy; to be glad or greatly delighted; to exult.	1718 *Free-thinker* No.65. 69. The nation rejoyces: The Prince is pleased. 1771 *Junius Lett*. lxvii. (1788) 339. They naturally rejoice when they see a signal instance of tyranny resisted with success. 1817 <u>SHELLEY</u> *Rev. Islam* VIII. xxviii. As if the sea, and sky, And earth, rejoiced with new-born liberty. 1859 <u>TENNYSON</u> *Geraint.* Never man rejoiced More than Geraint to greet her thus attired.	zero zero zero +*to*-inf.
	b. Const. *at, in,* †*of, over.* Also *to rejoice in,* to have or possess.	1726 <u>BUTLER</u> *Serm. Rolls. Chap.* When we rejoyce in the Prosperity of others. 1784 <u>COWPER</u> *Task.* Rejoice in him, and celebrate his	+*in*+NP +*in*+NP

	sway. 1842 <u>MRS. CARLYLE</u> *Lett.*I. I have had a parasol of Mrs. Buller's, who rejoices in two. 1864 <u>TENNYSON</u> *En. Ard.* Rejoicing at that answer to his prayer.	+*in*+NP +*at*+NP
c. Const. with clause, usu. with *that.*	1784 <u>COWPER</u> *Task.* Once more I…rejoice That yet a remnant of your race survives.	+*that*-clause
d. Const. with *inf.*	1819 <u>SHELLEY</u> *Prometh. Unb.* Grey mountains, and old woods,…Rejoice to hear what yet ye cannot speak.	+*to*-inf.

Table 1: senses of *rejoice* in *The Oxford English Dictionary*

It must be noted that the example sentences from *Lusignan II* and *Lane* represent an adjectival use of the verb, even though the *OED* has listed them under verbs with no comments on their adjectival characteristics. In spite of this notation, I will take the complement patterns offered by these examples into consideration, when listing all the possible complement patterns of *rejoice*. This is done mainly in order to get a more complete survey of the complement patterns as well as to see whether the adjectival patterns occur with verbs in the corpus data.

The most frequent complement patterns found in the *OED* are zero complement, NP and *in*+NP, even though there are instances of other common patterns as well. It is also notable that the *OED* does not provide a direct object gerundial complement for *rejoice*, which is normally a common complement for a number of verbs. However, as the *at*+-*ing.* pattern realized in one of the *OED* example suggests, *rejoice* takes prepositional gerund complements.

4.3 Other Dictionaries

To see whether there are meanings or complement patterns of the verb *rejoice* not covered by the *OED*, I will consult four other dictionaries: *Collins Cobuild English Language Dictionary*, *Longman Dictionary of the English Language*, *Dictionary of Constructions of Verbs, Adjectives, and Nouns* and

the *Oxford Advanced Learner's Dictionary*. I will also provide a small summary of the patterns and senses of each dictionary to ease the comparison between them.

4.3.1 *Collins Cobuild English Language Dictionary*

Collins Cobuild English Language Dictionary defines *rejoice* as a 'rather formal or literary word', which can be used in two very different semantic contexts. First, they offer the meaning *to be pleased or delighted about something*, accompanied by the following illustrations:

1) The bankers heard the news, and rejoiced.   [zero]
2) She rejoiced in her new-found independence.   [*in*+NP]
3) They rejoiced to see peace return to their country at last.   [*to*-inf.]

The second meaning offered by the *Collins Cobuild English Language Dictionary* was not covered by the *OED*:

If you say that someone or something rejoices in the name of or title of something, you mean that they are called that and you find it an unusual or amusing name or title, or an inaccurate or misleading name or title considering their actual function or activities.

They give the following example:

4)…a fat individual rejoicing in the name of Frederick Crispin Harbottle.   [*in*+NP]

Thus, in addition to the new meaning, the *Collins Cobuild English Language Dictionary* does not distinguish new complement patterns if compared to the *OED*. The following table lists the meanings and patterns provided by the *Collins Cobuild English Language Dictionary*:

I. Be delighted	*in*+NP *to*-inf. zero
II. Be named	*in*+NP

Table 2: meanings and patterns in the *Collins Cobuild English Language Dictionary*

4.3.2 *Longman Dictionary of the English Language*

The *Longman Dictionary of the English Language* provides the following meanings for *rejoice: to give joy to; gladden* (transitive), and *to feel or express joy or great delight* (intransitive). Unfortunately, there are no example sentences given of these meanings. However, they also attach a

meaning specifically to the pattern *rejoice in*: *to have, possess* (transitive), which, according to them, is often used ironically. It seems that this meaning appears only with names, as the following example is the only one given of this case:

1) …rejoices in the name of Higginbottom.   [*in*+NP]

I.To give joy to; gladden	-
II. To feel or express joy or great delight	-
III. To have, possess	*in*+NP

Table 3: meanings and patterns in the *Longman Dictionary of the English Language*

4.3.3 *Dictionary of Constructions of Verbs, Adjectives, and Nouns*

Poutsma recognizes both transitive and intransitive uses of the verb *rejoice*. However, he interestingly notes that 'the transitive use of this verb appears to be uncommon in Present-day English' (MS. *Dictionary of Constructions of Verbs, Adjectives, and Nouns* XLVI, 14 [unpublished]). Still, according to the *OED*, *rejoice* is fairly often used as a transitive verb, i.e. as a verb that has one object (Leech & Svartvik 2002, 259). Poutsma gives the following illustrations of the transitive uses of *rejoice*:

1) I love to rejoice their poor hearts at this season. (Addison, Spect. No.269. *OED* 2) [NP]

2) Too fair for human art, so Psyche thought, it might the fancy of some God rejoice. (Rob, Bridges, Eros&Psyche, May VI. OED 2) [NP]

For intransitive uses of the verb, Poutsma offers the following examples:

3) When they saw the star, they rejoiced with exceeding great joy. (Bible, Matth., I, 19) [zero]

4) We rejoice at your success. (Mason, Eng. Gram., § 284 [XLVIII, 3])   [*at*+NP]

5) We make holiday to see Caesar and to rejoice in his triumph. (Shak., Jul. Caes., I, 1, 35) [*in*+NP]

6) I am quite ready to rejoice over any sinner that repents. (Sarah Grand, Heavenly Twins, I, 115) [*over*+NP]

7) They rejoiced that he should have earned the esteem of his sovereign. (Graph. III, 54) [*that*-clause]

8) I rejoice to see you. (Dick., Bleak House, Ch. VI, 39 [XIX, 26]) [*to*-inf.]

9) He rejoiced at being enabled to assist his friend. [*at*+*ing*.]

10) Nothing delights the heart of Bob Smithers more than to do a kindness. I would have rejoiced in doing it. (Thack., Sam. Titm., Ch. XI, 145) [*in*+-*ing*]

11) We rejoice at your having succeeded. [*at*+poss.+-*ing*.]

12) His friends may well rejoice in his having met with one of the very few sensible women who would have accepted him. (Jane Austen, Pride&Prej., Ch. XXXII, 178 [XIX, 72]) [*in*+poss.+-*ing*.]

As we can see from the sources of these illustrations, some of them are the same as in the

OED and are already listed in the *OED* table of senses of *rejoice*. Still, I listed them here anew to give

a full representation of the information Poutsma's dictionary had to offer. Regarding the patterns,

Poutsma notes that according to the evidence available, the uses of *to rejoice in* and *to rejoice at* are

equally frequent and used interchangeably. Concerning the use of *over*, Poutsma says that it seems to

be the preposition most commonly used when a personal object is in question or when the reference is

to public rejoicings or festivities. Interestingly, Poutsma offers examples also of gerund-constructions

(sentences 9-12), although he claims that they seem to be uncommon with *rejoice*. Unfortunately, no

conclusions about stabilized pattern-sense combinations can be made based on Poutsma's dictionary,

since he does not give any senses of the verb itself. However, the patterns offered are assembled in the

following table:

transitive	NP
intransitive	*at*+NP *in*+NP *over*+NP *to*-inf. *that*-clause *at*+-*ing*. *in*+-*ing*. *at*+poss.+-*ing*. *in*+poss.+-*ing*. zero

Table 4: patterns in the *Dictionary of Constructions of Verbs, Adjectives, and Nouns*

4.3.4 *Oxford Advanced Learner's Dictionary*

Because language learners often learn by memorizing frequent patterns or idioms that go with a

certain word, learner's dictionaries tend to provide some information on patterns. The *Oxford*

Advanced Learner's Dictionary lists *rejoice* as a formal word with two meanings: *to express great happiness about sth* or *to have a name that sounds funny*. The latter meaning is said to be idiomatic and used in humorous contexts. For the first meaning they provide the following examples:

    1) When the war ended, people finally had cause to rejoice.   [zero]

    2) The motor industry is rejoicing at the cut in car tax.   [*at*+NP]

    3) They rejoiced to see their son well again.   [*to*-inf.]

For the latter meaning they offer the following phrase:

    4) He rejoiced in the name of Owen Owen.   [*in*+NP]

In addition to these patterns, the *Oxford Advanced Learner's Dictionary* informs us that *rejoice* is also used with *in*/*over*+NP complements and *that*-clauses, when it has the meaning *to express great happiness about sth*. However, they do not have examples of these.

I. To express great happiness	*at*+NP *in*+NP *over*+NP *to*-inf. *that*-clause zero
II. To have a name that sounds funny	*in*+NP

Table 5: meanings and patterns in the *Oxford Advanced Learner's Dictionary*

4.4 Grammars

In this section, I will concentrate on the complement patterns found in the four grammars that I have examined; Huddleston & Pullum, Poutsma, Quirk et al. and Biber et al., respectively.

First, Huddleston & Pullum (2002) identify seven possible constructions for *rejoice*, with the following illustrations:

    1) We *rejoiced* at the news (p.654)   [*at*+NP]
    2) He *rejoiced* at her decisive victory (p. 1019)   [*at*+NP]
    3) He *rejoiced* that she had won so decisively (p. 1019)   [*that*-clause]
    4) They *rejoiced* at their victory (p. 1224)   [*at*+NP]
    5) They *rejoiced* to hear they had won the war (p. 1224)   [*to*-inf.]
    6) They *rejoiced* that they had won the war (p. 1224)   [*that*-clause]
    7) They *rejoiced* that the war was finally over (p. 1435)   [*that*-clause]

As we can see, Huddleston & Pullum (2002) offer only three complement patterns for *rejoice*, leaving out four patterns distinguished by the *OED*. Also, they define sentences (4) and (5) as falling 'towards the boundary between adjuncts and complements' (ibid., 1224). However, I listed them as complements since the patterns *at*+NP and *to*-inf. are treated as grammatical patterns in the illustrations from the *OED* and all the other dictionaries that were investigated. In addition, Huddleston & Pullum (ibid.) note that *rejoice* belongs to a group of verbs that do not permit declarative content clauses (e.g. *that*-clauses) to be externalised[3], an example of this being sentence (7) in their illustrations. Thus, they remark that there can be no passive counterparts for this kind of subordinate clauses, even with extraposition (ibid., 1434-1435). Also, they observe that content clause complements relate directly to the verb, i.e. there can be no preposition between a verb and a content clause complement:

8) *He *rejoiced* [at that she had won so decisively]. (ibid., 1019)

Poutsma (1905, 636) classifies the verb *rejoice* with the group of verbs that express 'a state of mind, or an action consequent on a state of mind, brought about by an event'. He states that these verbs are normally constructed with *at*, even if they in some cases may take other prepositions such as *of* or *with*, in which case they convey a slightly different meaning (ibid.). Poutsma also declares that the infinitive construction is the most common, or in some cases the only possible one, with the group of verbs that express a state of mind (ibid.). He provides the following example:

9) I *rejoice* to see you. (*Bleak House*, Ch. VI, 39.)　　　[*to*-inf.]

Later in his grammar Poutsma discusses 'gerund-clauses with a subject-indicating word in the function of the prepositional object', giving an example of such a case:

10) His friends may well *rejoice* in his having met with one of the very few sensible women who would have accepted him. (*Pride and Prej*., Ch. XXXII, 178) (Poutsma 1905, 713)

In this example we have yet another complement pattern not illustrated in the *OED*: *in*+poss.+-*ing* complement, and it is notable that it represents the prepositional gerund complement. In the second

---

[3]By externalisation Huddleston & Pullum mean the process of converting active subordinate clauses (with or without extraposition) into passives. *Rejoice* belongs to a group of verbs that does not allow externalisation.

part of Poutsma's grammar (1926, 50), he provides instances of verbs which 'in the earlier stages of the language are found construed without a preposition now regularly, or all but regularly, take one'. He illustrates this with the following examples:

> 11) *to rejoice a thing* (Franz, Shak. Gram., 630)   [NP]
> 12) *to rejoice at a thing* (Onions, Adv. Eng. Synt., 29) (ibid.)   [*at*+NP]

Poutsma notes that the senses of these infinitival clauses are relatively the same, even though the complements differ (ibid.).

When discussing the expanded form of the English verb, Poutsma states that 'sometimes also the participle may be apprehended as rather adjectival than verbal', making a comparison between *to be hoping* (verbal) and *to be hopeful* (adjectival) (1926, 342). He provides the corresponding verbal example also for *rejoice*:

> 13) Even Mr. Carlyle's heart was rejoicing in the prospect. (*Mrs. Wood*, East Lynne, III, 35.)
> (Poutsma 1926, 342)   [*in*+NP]

Interestingly, Poutsma also distinguishes a complementation pattern that in earlier work was discussed only in his own *Dictionary of Constructions of Verbs, Adjectives, and Nouns*. He provides an example of this case:

> 14) Nothing delights the heart of Bob Smithers more than to do a kindness. I would have rejoiced in doing it. (*Thack*., Sam. Titm., Ch. XI, 145.) (Poutsma, MS. Dictionary of Constructions)

An addition to the prepositional gerund pattern *at*+*-ing*. found in the *OED*, the complementation pattern he offers represents the case of prepositional gerund complement with the preposition *in*: *in*+*-ing*.

Quirk et al. (1985, 1183) classify *rejoice* into a group of 'emotive verbs', which take a *that*-clause complement and 'can occur with (A) the indicative or (B) the putative *should* construction, but not with the mandative subjunctive construction'. Quirk et al. (1985, 1178) also recognize *rejoice* as a prepositional verb, occurring frequently with *at*. In addition, they notice the possibility of adding the preposition elsewhere in the sentence, if it has been omitted from after the verb due to a *that*-clause construction or extraposition. Quirk et al. (ibid.) provide an example of this using the verb *agree on*: *That they should meet as agreed (on)* and *It was agreed (on) eventually that they should meet*.

Unfortunately, Quirk et al. (ibid.) do not provide any occurrences of *rejoice* in sentences, nevertheless they recognize the following complement patterns for *rejoice*:

15) PP complement with *at*   (p. 1178)
16) *that*-clause   (p. 1183)

Unfortunately, Biber et al. (2000) fail to discuss the uses of *rejoice* as well as provide any illustrations, thus, no new patterns can be established based on their work.

4.5 Summary of the patterns

All of the patterns discussed by the dictionaries and grammars that were examined are assembled in table 6 below.

The Oxford English Dictionary	NP
	at+NP
	in+NP
	to-inf.
	that-clause
	NP+*that*-clause
	at+-*ing*
	zero
Collins Cobuild English Language Dictionary	*in*+NP
	to-inf.
	zero
Longman Dictionary of the English Language	*in*+NP
Dictionary of Constructions of Verbs, Adjectives, and Nouns	NP
	at+NP
	in+NP
	over+NP
	to-inf.
	that-clause
	at+-*ing*.
	in+-*ing*.
	at+poss.+-*ing*.
	in+poss.+-*ing*.
	zero
Oxford Advanced Learner's Dictionary	*at*+NP
	in+NP
	over+NP
	to-inf.
	that-clause
	zero
Huddleston & Pullum	*at*+NP
	to-inf.
	that-clause
Poutsma	NP
	at+NP

	in+NP *to*-inf. *in*+-*ing* *in*+poss.+-*ing*
Quirk et al.	*at*+NP *that*-clause
Biber et al.	-

Table 6: summary of the patterns in dictionaries and grammars

Almost all of the dictionaries and grammars that were studied recognize both sentential and non-sentential complement patterns, as well as the zero complement. However, as we can see from table 6, Poutsma's grammar and the *Dictionary of Constructions of Verbs, Adjectives, and Nouns* as well as the OED succeed in offering the most encompassing list of complementation patterns for *rejoice*. Interestingly, Poutsma and the OED are also the only ones mentioning the prepositional gerunds *at*+-*ing*. and *in*+-*ing*. In addition, only Poutsma recognizes the structures *at*+poss.+-*ing* and *in*+poss.+-*ing*. as acceptable complementation patterns for *rejoice*, thus raising a question whether they will be found in the corpus examples. Also, the OED is the only source that lists NP+*that*-clause as a complement pattern.

Judging by table 6, the distribution of sentential and non-sentential complements is rather even, a matter which will also be more thoroughly investigated with the authentic data. When we turn to the chapter of corpus analysis, it will be of interest to see whether the data offers any new patterns not distinguished by the dictionaries or grammars, what is the distribution of complements and whether anything can be said about the relationship between sense and form.

5 Corpus analysis

We now turn to analysing the actual corpus data, drawn from all three sub-sections of the CLMET (parts 1 and 3 from the extended version, part 2 from the original version), and three domains of the BNC, Imaginative prose, World affairs and Belief and thought, respectively. In the analysis I will try to examine the data from the point of view of the following research questions:

I) What kinds of complements does the verb *rejoice* take? Are there any complement patterns not established by the dictionaries and grammars used?
II) How common is each complement type?
III) When comparing data from different sub-corpora, what are the main changes in complementation from the 18th Century to the present day?
IV) What kinds of factors influence the choice of complement? Are there any violations of the principles that affect complementation?

First, however, I will make a few comments on the methodology used.

5.1 Methodology

The six sub-corpora chosen for investigation will be discussed and compared in chronological order, starting from the historically oldest data provided by the CLMETEV 1 to the modern English represented by the sub-sections of the BNC. As stated earlier, the comparison between the sub-corpora will be carried out by comparing the historical data of the CLMET with the BNC sub-section Imaginative prose, while another comparison will be done between the BNC sub-sections World affairs and Belief and thought. This way, we are able to examine and chart the chronological changes occurred in the complementation of fictional texts over time, as well as get a representation of the differences in complementation between the text types of informative and religious texts in modern English.

With every sub-corpus, I will present a table showing the patterns that were found, their distribution among the relevant tokens as well as the percentages of the patterns and their normalized frequencies. The number of irrelevant tokens will also be discussed with a few examples illustrating how they differ from the relevant ones (distinctly, the form *rejoiced* can also be adjectival and *rejoicing* nominal). The patterns that were found will be discussed dividing them by sententiality or non-sententiality, with interest on the commonness of patterns and with a specific interest on the rarer

patterns. The verb *rejoice* is always underlined in the data examples, also, in case there is something in the data that deserves special attention (e.g. insertions), those structures will be emboldened or otherwise marked and further explained in the following analysis. A table illustrating sense-structure connections and the distribution of tokens among the senses will be presented for each sub-corpora, focusing on the question of whether any generalisations can be proposed about the relationship between form and meaning.

As regards the process of retrieving data, a simple search was conducted for each sub-corpus. What that means is that a separate search for all of the four forms of the verb was conducted, after which the retrieved tokens were gone through manually to exclude irrelevant cases. It is important to note that the BNC would have allowed tagging, but that may have had a negative effect on the precision. Therefore, a simple search string was used with each sub-corpus.

5.2 *Rejoice* in the CLMETEV 1710-1780

The first part of the CLMETEV is comprised of 3.0 million words. The data collection led to 157 hits altogether, however, two tokens represented the form *rejoicing* used as a noun and two as an adjective. Also, there were 16 tokens that represented the form *rejoiced* used as an adjective. Such tokens were disregarded from this study, bringing the total number of the tokens of the verb *rejoice* to 137, which will be further distinguished in Table 7. The disregarded tokens represented cases such as the following (The dates of all the CLMET corpus examples (parts 1-3) are taken from De Smet):

> a) …the patereroes might be discharged with an equivocal intent, either as signals of his lady's sorrow or rejoicing. (Tobias George Smollett, 1751, *The Adventures of Peregrine Pickle*)
>
> b) The day of a christening is, in all families, I believe, a day of jubilee and rejoicing; and yet… (Henry Fielding, 1751, *Amelia*)
>
> c) …dear, captain – I'm rejoiced to see thee safe and sound with all my heart. (Tobias George Smollett, 1771, *The expedition of Humphrey Clinker*)
>
> d) Thus when a person obtains any honourable office, or inherits a great fortune, we are always the more rejoiced for his prosperity, the less sense he seems to have of it… (David Hume, 1739-40, *A treatise of human nature*)

Complement type	*rejoice*	*rejoiced*	*rejoices*	*rejoicing*	Total	%	NF/million
at+-ing.	-	2	-	-	**2**	1,5	0.6
to-inf.	21	5	-	-	**26**	19	8.6
NP+*to*-inf.	2	-	-	-	**2**	1,5	0.6
that-clause	6	1	-	1	**8**	5,8	2.6
zero *that*-clause	-	1	-	-	**1**	0,7	0.3
Sentential total	**29**	**9**	**-**	**1**	**39**	**28,5**	**13.0**
NP	1	-	1	-	**2**	1,5	0.6
at+NP	17	9	-	2	**28**	20,4	9.3
in+NP	22	8	1	4	**35**	25,5	11.7
within+NP	1	-	-	-	**1**	0,7	0.3
on+NP	-	1	-	-	**1**	0,7	0.3
over+NP	-	-	-	1	**1**	0,7	0.3
for+NP	1	-	-	1	**2**	1,5	0.6
Non-sentential total	**42**	**18**	**2**	**8**	**70**	**51,1**	**23.3**
zero	23	1	-	4	**28**	20,4	9.3
Total	**94**	**28**	**2**	**13**	**137**	**~100**	**45.6**

Table 7: complement patterns of the verb *rejoice* in the CLMETEV 1
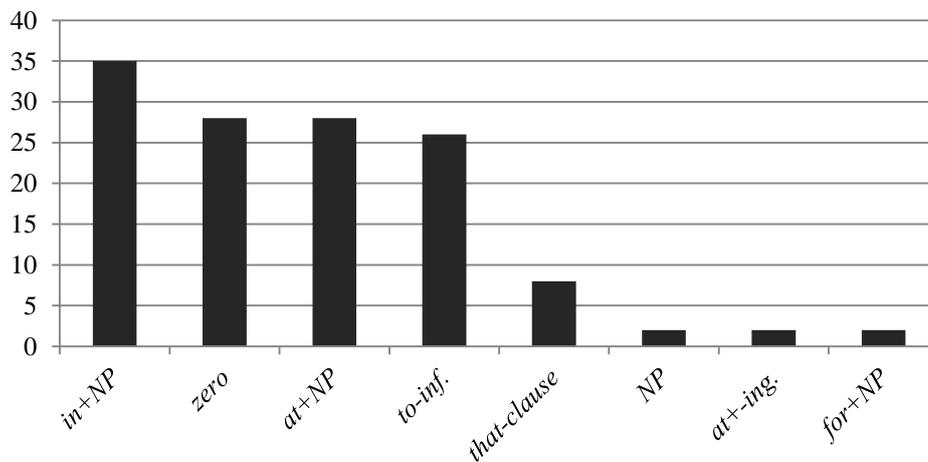
Figure 1: CLMETEV 1 complements in order of frequency.

If we consider table 7 above, it is worth mentioning the uneven distribution of complements for each verb form. As we can see, the form *rejoice* gathers 94 tokens in total, thus accounting for 68,6% of the complements in this sub-corpus. Also, there are only two tokens for the verb form *rejoices*, and 13 for *rejoicing*. Thus, the forms *rejoice* and *rejoiced* dominate the data. In addition, before commencing the actual analysis of the data, it is also significant to notice the main distribution of the complement patterns. As we can see, non-sentential complements are the most frequent pattern in this sub-corpus

with 51,1% of the data, while the sentential pattern is also fairly common with 28,5%. It is also worth

noticing the high number of zero complements, as they account for 20,4% of the data, thus being one of

the most frequent patterns for the verb in question.

5.2.1 Sentential complements

The 39 sentential tokens found in the data represented five different complement patterns, the most

common of them being the *to*-infinitival pattern with 26 occurrences:

> (1) a) …I should <u>rejoice</u> **much** to hear that all my friends were equally resigned. (Philip
> Doddridge, 1750, *The life of Col. James Gardiner*)
>
> b) …I shall always <u>rejoice</u> to see you and your hopeful nephew, Mr Milfordhaven…
> (Tobias George Smollett, 1771, *The expedition of Humphrey Clinker*)
>
> c) I <u>rejoice</u> to find, by this testimony of your goodwill, that this matter may be
> adjusted… (Horace Walpole, 1735-48, *The castle of Otranto*)
>
> d) "And I," said the Princess, "shall <u>rejoice</u> to learn something of the manners of
> antiquity". (Samuel Johnson, 1759, *Rasselas, prince of Abyssinia*)

As is evident from the list above, the verb *rejoice* often partners with the verb *find* or a sensory verb

such as *hear* or *see* when it is used with the infinitival construction. Therefore, the semantic roles of

PRO are usually experiencers or agents. Regarding the characteristics of the subjects in the *to*-

infinitival sentences, all 26 of them were found to be [+HUMAN]. Interestingly, example (1a) was the

only occurrence of an insertion between the higher clause and the lower clause. However, if we recall

Rohdenburg's (1996, 152) remark on complex lexical items being used in more explicit lexical

environments, we could infer that the insertion found in the data is not complex or lengthy enough to

yield a more explicit environment. Regarding the notion of *to*-infinitives referring to a hypothetical

situation, it can be argued that the hypothetical nature of sentences (1a-d) is likely to arise from the

sense of them being forward-looking, at least in cases (1a-b) and (1d).

 There were two cases in the data that represented the pattern NP+*to*-inf:

> (2) a) I am very glad of it; for it would <u>rejoice</u> me to be an humble means of making all
> mankind so… (Samuel Richardson, 1740, *Pamela*)

b) How you <u>rejoice</u> me to hear, that what I have so long prayed for will come to pass! (Clara Reeve, 1777, *The old English baron*)

In both examples the NP *me* refers to an animate object, thus they are both semantically [+HUMAN]. However, this pattern was relatively rare throughout the data, and it will be of interest to see whether the number of occurrences will increase towards present day English. Also, sentence (2a) involves extraposition, as the subject is postponed and replaced by *it*, and the rather bulky constituent is placed at the right of its canonical position.

There were only two occurrences of the complement pattern *at+-ing*. found in the data, both used with the form *rejoiced*:

(3)   a) …Partridge again took the bridle from his tongue; which, perhaps, <u>rejoiced</u> **no less** at regaining its liberty, than a young colt, when the bridle… (Henry Fielding, 1749, *The history of Tom Jones, a foundling*)

b) It is but a few days ago that I <u>rejoiced</u> at having got without the Reef; but that joy was nothing when… (James Cook, 1768-71, *Captain Cook's journal during the first voyage round the world*)

If we consider the semantic roles of PRO in these sentences, we could first of all insert the understood subject to these sentences to highlight the underlying structures further:

a') …Partridge again took the bridle from his tongue; which, perhaps, <u>rejoiced</u> **no less** at [PRO] regaining its liberty, than a young colt, when the bridle…
b') It is but a few days ago that I <u>rejoiced</u> at [PRO] having got without the Reef; but that joy was nothing when…

Now, the verbs *regain* and *get* assign a semantic role to PRO, and in (3a') that role is benefactive, since the process of *regaining one's liberty* can be interpreted as receiving something. In example (3b') PRO can be seen as a theme, mainly because the clause *having got without the reef* can be interpreted as getting out of trouble. As we can see, there is also an insertion between the verb and the complement in (3a), however, it is short enough not to affect the explicitness of the clausal environment.

That-clauses were relatively rare in the data, accounting for only 5,8% of the complements in this sub-corpus:

(4)   a) 'O <u>rejoice</u> **with me, my dear Mrs. Jervis**, that I am enabled, by God's graciousness, and my dear master's goodness… (Samuel Richardson, 1740, *Pamela*)

b) <u>Rejoice</u>, **therefore**, that there is one person in the world who can and will tell you what will be very useful to you… (Philip Dormer Stanhope Chesterfield, 1746-71, *Letters to his son*)

c) I <u>rejoice</u> **for your sake** that Madame Royale' is recovered, as I saw in the papers. (Horace Walpole, 1735-48, *Letters* (Vol. 1))

d) …And then <u>rejoice</u> that she the part has gain'd; The welcome haven of… (Theophilus Cibber, 1753, *The lives of the poets of Great Britain and Ireland* (Vol. 1; Vol. 3)

Considering the insertions in (4a-c), our first presumption would be that since the insertions are followed by *that*-clause complements, their lexical environment is complex enough to yield a more explicit *that*-clause over a *to*-infinitival one. However, even without the insertions the *that*-clause complements do not seem like an odd choice in any way, one reason for this might be that at least in (4b-c) the insertions are not lengthy enough to necessarily increase the complexity of the sentence.

The data also yielded one case of a zero *that*-clause:

(5)   O how I <u>rejoiced</u> I had got out of his clutches! (Samuel Richardson, 1740, *Pamela*)

5.2.2 Non-sentential complements

Non-sentential complements accounted for 70 tokens or 51.1% of the sub-corpus. The frequency of the non-sentential complements was 23.3 per million, making it the most common class of complements for the verb in question. The patterns *at*+NP and *in*+NP were found to be the most frequent patterns with 28 and 35 occurrences, thus, I will begin with the most common pattern *in*+NP:

(6)   a) And , if I know my own poor heart, I shall wish you happy in a lady of suitable degree; and <u>rejoice</u> **most sincerely** in every circumstance that shall make for the happiness of my late good lady's most beloved… (Samuel Richardson, 1740, *Pamela*)

b) I am sorry for myself, sir, said he, that I should so unhappily incur you displeasure; but I <u>rejoice</u> **for her sake** in your honourable intentions: give me leave… (Samuel Richardson, 1740, *Pamela*)

c) My landlord was so pleased with the present he had received from Sophia, that he rather <u>rejoiced</u> in **than regretted** his bruise or his scratches. (Henry Fielding, 1749, *The history of Tom Jones, a foundling*)

d) …to justify his own vindictive proceedings, but, on the contrary, <u>rejoiced</u> **heartily** in every piece of evidence which tended to clear up the character of his friend… (Henry Fielding, 1751, *Amelia*)

e) …without any advantage to themselves but that of <u>rejoicing</u> in the superiority of their own knowledge. (Samuel Johnson, 1759, *Rasselas, prince of Abyssinia*)

f) …I look on myself at this day as the happiest of women; nor have I done anything which I do not <u>rejoice</u> in, and would, if I had the gift of prescience, do again. (Henry Fielding, 1751, *Amelia*)

The data yielded four insertions with this pattern, however, they do not have a prominent effect on the complementation in this case. The insertions in the examples above represent either manner adjuncts (6a, d) or conjunctions (6c). Example (6b) represents an interesting case, since it can be interpreted as either *for*+NP complement, or an *in*+NP complement with a *for*+NP insertion. However, for semantic reasons, (6b) is here interpreted as involving *in*+NP complement pattern (*rejoice* is semantically connected with *your honourable intentions* in this case). Also, sentence (6f) involves a relative clause and thus relative extraction as there is a gap in between the complement pattern *in*+NP. Regarding the semantic roles implied in the complements, the NP was found to be [-HUMAN] in 30 cases and [+HUMAN] in only 5. The five tokens with animate NPs represented cases such as the following:

g) …to Him 'whom, not having seen, he loved; '[*] and that he was <u>rejoicing</u> in him with such unspeakable joy, that he could not hold it down… (Philip Doddridge, 1750, *The life of Col. James Gardiner*)

The pattern *at*+NP was the second most frequent non-sentential complement with 28 tokens, four of them presented below:

(7)   a) Louisa, unable to determine within herself whether she ought to <u>rejoice</u>, **or be sad** at this intended journey, fell into a sudden thoughtfulness… (Eliza Fowler Haywood, 1744, *The fortunate foudlings*) [coordination]

b) It is hard to say whether she most <u>rejoiced</u> **or grieved** at this account: she imagined that had he been dead they would not have been ignorant of it… (Eliza Fowler Haywood, 1744, *The fortunate foudlings*) [coordination]

c) "For some time after my retreat I <u>rejoiced</u> **like a tempest-beaten sailor** at his entrance into the harbour, being delighted with… (Samuel Johnson, 1759, *Rasselas, prince of Abyssinia*)

> d) She <u>rejoiced</u> **without her own consent** at the suspension of her sorrows, and sometimes caught herself with indignation… (Samuel Johnson, 1759, *Rasselas, prince of Abyssinia*)

The data produced two tokens with coordination (7a&b) and two with insertions (7c&d). In this case the term coordination is used to refer to a situation where two verbs are joined to share the same complement. Considering semantic roles of the NPs in this pattern, all 28 tokens were found to be [-HUMAN]. If comparing *in*+NP and *at*+NP patterns further, we recall Wesche's (1986, 385) analysis of the semantic features carried by locative prepositions. According to Wesche (ibid.), the NPs attached to *at* should ideally refer to a topological (zero-dimensional) point, while NPs with *in* refer to a two-dimensional or three-dimensional spaces. She also extends her analysis to include the pattern *on*+NP, which refers to a one-dimensional line or two-dimensional surface (ibid.). Thus, depending on the preposition, we are talking either about points, lines, surfaces or spaces in a semantic sense. However, Wesche (ibid., 391) remarks that these are the prototypical meanings or 'concrete concepts', which can be further projected to 'abstract scale concepts'. Thus, she recognizes the possibility of the NP being either concrete or abstract in meaning and that the abstract concepts lead us back to the prototype, since the abstractions characterize some core meaning of the clearest case (ibid. 385). If we apply this to the data examples, it is slightly difficult to see this analysis in play in sentences (6-7). For example, the NPs in sentences (6a) and (6b), *every circumstance* and *your honourable intentions*, are rather abstract and do not seem to be spatial in nature. However, in every sentence in (6), there is a sense of inclusion or being a part of the situation, which is not the case with *at*+NP constructions. In sentences (7a-d), the NPs are more concrete, and if we interpret the constructions as a whole, they seem to evoke a sense of being outside of the situation, not being included in the event but observing from the brink of the event. It could be concluded that Wesche's analysis holds true at least with these examples.

The data yielded two cases that were ambiguous and thus difficult to interpret. The obscurity of these tokens arose from the possibility of them representing either *in*+NP complements or <u>*at*+NP</u> complements with *in*+NP insertions (locative adjuncts). Due to their ambiguous nature, they are presented separately from the previous discussion:

(8) a) …I was myself one of the wicked, and did <u>rejoice</u> **in my heart** <u>at the deeds</u> of darkness: no, says he, I will not be… (Theophilus Cibber, 1753, *The lives of the poets of Great Britain and Ireland* (Vol. 1; Vol. 3))

 b) …I cannot say that I <u>rejoiced</u> **in my heart** <u>at the event</u> – and could not help telling her so… (Laurence Sterne, 1768, *A sentimental journey through France and Italy*)

If we consider the semantics of these sentences, we can interpret the prepositional phrases *at the deeds* and *at the event* as being semantically in closer contact with the verb. In that case, the *in*+NP insertions would represent locative adjuncts, and could not therefore be categorised as complements. As this is the likeliest analysis in this case, sentences (8a&b) are treated as *at*+NP complements.

NP complements were a minority in the data with only two tokens:

(9) a) The colonel mentioned this at first to me "as matter of eternal praise, which he knew would <u>rejoice</u> my very soul;" (Philip Doddridge, 1750, *The life of Col. James Gardiner*)

 b) In the same manner the success of a partner <u>rejoices</u> me, but then his misfortunes afflict me in an equal proportion… (David Hume, 1739-40, *A treatise of human nature*)

Regarding the semantic characteristics of these tokens, (9b) is an example of an animate NP, while in (9a) the NP is inanimate.

Some of the rarer non-sentential patterns in this sub-corpus were *within*+NP, *on*+NP and *over*+NP, all of which produced only one token. Also, the pattern *for*+NP was relatively infrequent with two occurrences in total. All of the tokens of these patterns are presented below, in the order mentioned above:

(10) …we much more generally and sensibly compassionate the distressed than <u>rejoice</u> within the prosperous, requires to be… (Joseph Butler, 1726, *Human nature and other sermons*)

(11) …a mixture of pleasure and anxiety:--she <u>rejoiced</u> **with him** on the great prospects he had in view; but the terror… (Eliza Fowler Haywood, 1744, *The fortunate foundlings*)

(12) We are <u>rejoicing</u> over the great success of the Queen of Hungary's arms, and the number of blows and thwarts… (Horace Walpole, 1735-48, *Letters* (Vol. 1))

(13) a) …and make us <u>rejoice</u> for our pains, and grieve for our pleasures. (David Hume, 1739-40, *A treatise of human nature*)

 b) I could not in my heart forbear <u>rejoicing</u> for his safety; though his death would have ended my afflictions. (Samuel Richardson, 1740, *Pamela*)

If we consider the semantic characteristics of the NPs in these sentences, example (10) is the only case where the NP refers to something that can be interpreted as animate, while in all the other examples the NPs refer to [-HUMAN] entities. Recalling Wesche's (1986, 385) analysis of the *on*+NP referring to a one-dimensional line or two-dimensional surface, it can be said that in sentence (11) the NP *the great prospects* can be interpreted as a surface or space in which the subject has not yet entered, but has an access to, or a sight of it.

Zero complements were relatively frequent in the data, as they accounted for 28 tokens (20,4%) of the total of 137. Some zero complements represented cases such as (14a,b,d), where the verb is followed by an adjunct, whereas in others the verb was situated for example in clausal boundaries with no complement as in (14c):

(14)   a) But I had less occasion to <u>rejoice</u> than ever, as you will judge by what I have said already. (Samuel Richardson, 1740, *Pamela*)

b) …I am sure I shall <u>rejoice</u> when I am out of the house! (Samuel Richardson, 1740, *Pamela*)

c) …I would teach myself to mourn; and, when they <u>rejoiced</u>, I would rejoice along with them. (Laurence Sterne, 1768, *A sentimental journey through France and Italy*)

d) …and all her children are <u>rejoicing</u> as they carry in their clusters… (Laurence Sterne, 1768, *A sentimental journey through France and Italy*)

5.2.3 Sense and structure

The relations between sense and pattern in the CLMETEV1 are presented in table 8 below.

Simplified Sense	Number of Tokens	Patterns
I To gladden a person or his spirits	2	NP
	2	NP+*to*-inf.
	Total: 4 (2,9%)	
II To make oneself glad [refl.]	-	-
III Be delighted	35	*in*+NP
	28	*at*+NP
	1	*on*+NP
	28	zero
	26	*to*-inf.
	8	*that*-clause
	1	zero *that*-clause
	1	*within*+NP

	2	*for*+NP
	1	*over*+NP
	2	*at*+*-ing.*
	Total: 133 (97,1%)	
IV Be named	-	-

Table 8: Meanings and patterns in the CLMETEV 1

Sense I: *To gladden a person or his spirits*. Only four tokens were found to represent sense I with two NP complements and two NP+*to*-infinitival complements.

Sense II: *To make oneself glad [refl.]*. No occurrences of this sense in the data.

Sense III: *Be delighted*. An overwhelmingly frequent sense in the data, as 97,1% of the tokens represented this meaning. Also, the patterns associated with this meaning cover all of the patterns found in the data excluding NP and NP+*to*-inf.

Sense IV: *Be named*. No occurrences of this sense in the data.

5.2.4 Review of the data

In this section I have analysed the data from the years 1710-1780. 137 tokens have been classified and considered. The normalised frequency of the verb itself was 45.6 pmw, which implies that it is very commonly used during that time period in fictional written texts. Also, some main points concerning this sub-corpus have arisen: 13 different complement patterns were found, including the zero complement. The most common complement pattern in CLMETEV1 was *in*+NP with a normalized frequency of 11.7 pmw, followed by the zero complement, *at*+NP, to-infinitive, *that*-clause and NP complement. Overall, non-sentential complements were a far more frequent complement type with 70 tokens, compared to sententials that accounted for 39 tokens in the data. Interestingly, the data revealed five patterns which were not discussed by the dictionaries or grammars that were examined. These patterns were NP+*to*-inf., *for*+NP, zero *that*-clause, *within*+NP, and *on*+NP. In every pattern involving an NP, it was found to be semantically inanimate in most cases. Wesches's analysis of the prepositional NP pattern was also discussed and applied to the data, and the data examples seemed to

support Wesche's theory. Also, PRO and its semantic roles were discussed, as well as cases with insertions or coordination. Complexity factors were also found, as there were examples of relative extraction and extraposition. Regarding the connection between form and meaning, sense III was overwhelmingly the most frequent one, concerning all patterns excluding NP and NP+*to*-infinitive, which belonged to sense I with four tokens.

5.3 *Rejoice* in the CLMET 1780-1850

The second part of the CLMET (original version) comprises 3,7 million words. The data collection led to 217 hits altogether, however, 24 tokens represented the form *rejoiced* used as an adjective, some of them illustrated below:

> a) We are heartily rejoiced that the poor baby gives you no particular anxiety. (Jane Austen, 1796-1817, *Letters to her Sister Cassandra and Others*)
> b) 'Och, lieber herr,' said Benedict, 'how rejoiced I am to see you again. (George Henry Borrow, 1842, *The Bible in Spain*)
> c) The latter were secretly rejoiced on hearing what had befallen Herne, but they feigned the greatest affliction, and hastened with the king to […] (William Harrison Ainsworth, 1843, *Windsor Castle*)

In addition, 11 tokens represented the form *rejoicing* used as a noun, demonstrated below:

> d) The victory of Trafalgar was celebrated, indeed, with the usual forms of rejoicing, but they were without joy; for such already was the glory […] (Robert Southey, 1813, *Life of Horatio Lord Nelson*)
> e) …he king's arrival, the cavalcades ascended Thames Street, and were welcomed everywhere with acclamations and rejoicing. (William Harrison Ainsworth, 1843, *Windsor Castle*)

Such tokens for the adjective *rejoiced* and for the noun *rejoicing* were disregarded from this study.

This brings the total number of the tokens of the verb *rejoice* to 182, which will be further distinguished in Table 9 below.

Complement type	*rejoice*	*rejoiced*	*rejoices*	*rejoicing*	**Total**	%	NF/million
at+-ing.	1	2	-	-	**3**	1,6	0.8
at+poss.+-*ing*.	1	-	-	-	**1**	0,5	0.3
at+*wh*-clause	-	-	-	1	**1**	0,5	0.3
in+-ing.	1	-	-	-	**1**	0,5	0.3
in+poss.+-*ing*.	3	1	-	-	**4**	2,2	1.1
in+*wh*-clause	1	-	-	-	**1**	0,5	0.3
to-inf.	13	12	2	1	**28**	15,4	7.5
NP+*to*-inf.	-	-	2	-	**2**	1,1	0.5
that-clause	8	11	-	2	**21**	11,5	5.6
Sentential total	**28**	**26**	**4**	**4**	**62**	**34,1**	**16.6**
NP	2	2	-	-	**4**	2,2	1.1
at+NP	8	8	-	7	**23**	12,6	6.2
in+NP	21	18	3	8	**50**	27,5	13.5
for+NP	1	-	-	-	**1**	0,5	0.3
Non-sentential total	**32**	**28**	**3**	**15**	**78**	**42,9**	**21.1**
zero	23	8	3	8	**42**	23,1	11.2
Total	**83**	**62**	**10**	**27**	**182**	**~100**	**48.9**

Table 9: complement patterns of the verb *rejoice* in the CLMET 2
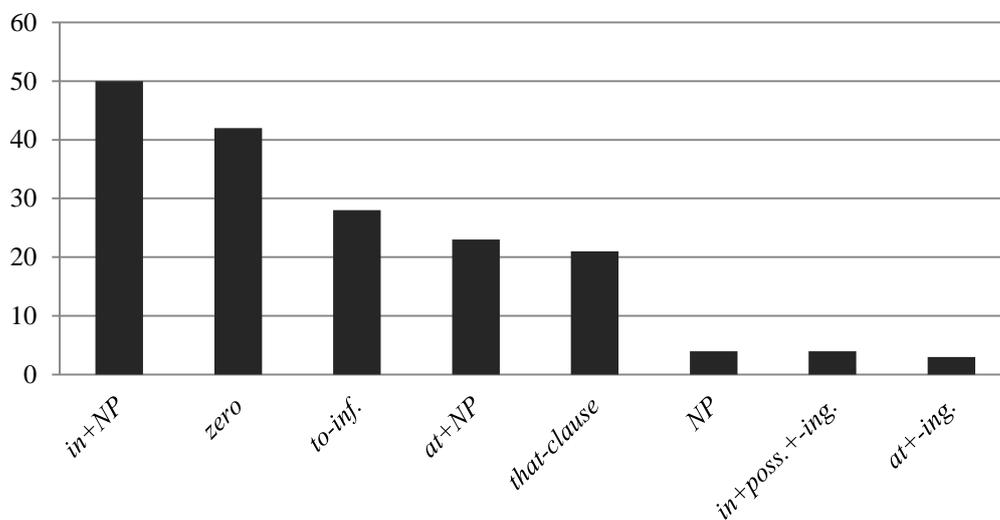

Figure 2: CLMET 2 complements in order of frequency.

5.3.1 Sentential complements

Sentential complements accounted for 34,1% of the complements in the data, most frequent of them being *to*-infinitives and *that*-clauses. Thus, I will begin with the most common sentential pattern, the *to*-infinitive.

There were altogether 30 tokens that represented the verb *rejoice* used with an infinitival complement. The most common of this type was a simple *to*-infinitive (26 tokens). Thus, here are three corpus examples of this common type:

(1)   a) The two generous companions, we <u>rejoice</u> to find, did not perish. (Thomas Carlyle, 1837, *The French Revolution*)
b) And then he said to Paul, 'Will you tell your good papa that Sir Barnet Skettles <u>rejoiced</u> to hear that he was very well, and sent […] (Charles Dickens, 1848, *Dombey and Son*)
c) …friend of my early life, the man who <u>rejoiced</u> to see me, because he loved me […] (Robert Burns, 1780-96, *The Letters of Robert Burns*)

Regarding the sentences above, it is noticeable that sentence (1a) involves a parenthetical insertion, since the sentence could be written out as: *We rejoice to find that the two generous companions did not perish*. Therefore, the clause *we rejoice to find* can be interpreted as added (and somewhat unnecessary) information. If we consider the gap-filler dependencies in these sentences, it is worth mentioning that there is extraction in sentence (1c), and it is noticeable that the subject *the man* does move, but the movement is vacuous (see Huang 1996, 127). Considering sentence (1b), there is an avoidance of two adjacent constructions, i.e. the complement *to hear* adheres to the *Horror Aequi* principle. If the principle was not obeyed, it would result in sentence such as *rejoiced that he heard that he was very well*, which is not as fluent as the original sentence.

In addition to the basic *to*-infinitives, there were two cases where the infinitives were used with the perfect aspect:

(2)   a) I <u>rejoice</u> much to have made your acquaintance; I have no doubt that […] (George Henry Borrow, 1842, *The Bible in Spain*)

b) I should still the more <u>rejoice</u> to have shared them with your father, and administered […] (Anne Brontë, 1847, *Agnes Grey*)

Regarding these examples, we can see that sentences (2a) and (2b) conflict with Allerton's (1988, 14) theory about *to*-infinitives being semantically hypothetical, as the events in the examples can be interpreted as referring to real situations. Also, unlike Allerton (1988) suggested, the *to*-infinitives are not semantically forward-looking in these examples. In (2a) and (2b), the temporal reference is to past time, not to the future. This is the case also with examples (1a-c), as they refer to the past and do not describe hypothetical situations.

A notable case found in the corpus examples was also the complement type NP+*to*-inf., which was not discovered in the grammars and dictionaries that were examined. There were two occurrences of this complement type in the CLMET data:

(3)   a) Now it <u>rejoices</u> my heart to have met with such a fellow as you […] (Robert Burns, 1780-1796, *The Letters of Robert Burns*)

          b) …and it always <u>rejoices</u> me to find that those whom I wish to regard […] (George Gordon Byron, 1810-1813, *Letters 1810-1813*)

It must be noted that the complement in example (3a) is also in the perfect aspect, leaving example (3b) as the only case of a NP+*to*-inf. complement representing the simple infinitive. Also, the examples (3a) and (3b) include extraposition, where *it* is the higher subject. If extraposition is considered as a moving rule, the examples involve complex sentential subjects or *that*-clauses in subject positions, such as *to have met with such a fellow as you* found in the example (3a).

Regarding Allerton's (1988, 14) theory of *to*-infinitives being hypothetical, it is noticeable that 'meeting someone', 'making someone's acquaintance' and 'sharing something with someone' are not hypothetical occurrences, but in these cases real events. The only example where a *to*-infinitive might be inferred as hypothetical is sentence (3b), in which there could be a discussion of a potential event that is yet to happen. It is also noteworthy that sentence (3b) is the only example of these four sentences in which there is a simple infinitive.

Unfortunately, there were no passive constructions in the corpus data, and regarding the semantic relations in the *to*-infinitival constructions, the higher subject could be interpreted as an experiencer in all 28 tokens.

With 21 tokens found in the data, *that*-clauses are fairly frequently used as complements with the verb *rejoice*. The CLMET offers the following examples:

(4)   a) …postponed all inquiries till the morning, and <u>rejoiced</u> that her mistress had not been awakened, whilst Corkscrew flattered […] (Maria Edgeworth, 1796-1801, *The Parent's Assistant*)

          b) <u>Rejoicing</u> that my tormentor has lost traces of me for once, I am making haste to leave my asylum, on pretence […] (James Hogg, 1824, *The Private Memoirs and Confessions of a Justified Sinner*)

Concerning complexity factors in *that*-clauses, there were two examples where the verb was not directly followed by a *that*-clause:

> c) …French Mediterranean fleet, <u>rejoiced</u> **also** that he was not present to have taken a sping of these brave […] (Robert Southey, 1813, *Life of Horatio Lord Nelson*)
>
> d) William <u>rejoiced</u>, **as he laid down the petition**, that she had asked a favour […] (Elisabeth Inchbald, 1796, *Nature and Art*)

Since the sentences (4c) and (4d) were the only examples where there was an insertion between *rejoice* and a *that*-clause, it can be inferred that these are to be considered as rare cases. The examples are finite clauses, thus they represent higher explicitness and the formal alternative to a non-finite clause, also the preferred one in a complex environment.

Comparing *that*-clauses and *to*-infinitives, it seems that the only case where the situation is semantically more hypothetical is the case in which the *to*-infinitive is in the simple form. If we compare *that*-clauses and *to*-infinitives in their perfect aspects, there seems to be no difference in the realness of the situation, i.e. neither of the structures express a semantically hypothetical event.

Unfortunately, there were no occurrences of zero *that*-clauses in the data, however, they seem to be grammatical with *rejoice* and they potentially represent the same meaning as a corresponding *that*-clause, as is clear from the modified example (4a) above: *… rejoiced her mistress had not been awakened.* However, it is unclear whether all *that*-clauses allow a modification to zero *that*-clauses.

Sentential PP complements were comparatively rare in the data; they contributed only 6,8% of the entire data. However, it is interesting that some of the sentential PP complements found in the data were not distinguished in the grammars and dictionaries that were used. Thus, they are of specific interest when considering new patterns and their frequencies that were found in the CLMET data. Only three cases were found in the corpus with the complement pattern *at+-ing*:

> (5)   a) I cannot immediately determine whether I ought to <u>rejoice</u> at having turned over in this solitude a new page […] (Mary Wollstonecraft, 1792, *Letters on Norway, Sweden, and Denmark*)
>
> b) …I <u>rejoiced</u>, **even then in my early youth**, at being used as a scourage […] (James Hogg, 1824, *The Private Memoirs and Confessions of a Justified Sinner*)
>
> c) He <u>rejoiced</u> at seeing me so forward in the great work of reformation […] (James Hogg, 1824, *The Private Memoirs and Confessions of a Justified Sinner*)

Another rare pattern, *in*+poss.-*ing*., was found in only four tokens in the corpus, one of them illustrated here:

>   (6)   Or at least, if she did not bring herself quite to <u>rejoice</u> in Edward's being fettered to Lucy, she determined […] (Jane Austen, 1811, *Sense and Sensibility*)

In the corpus data, there were three kinds of prepositional phrase complements found that were not discussed in the grammars or dictionaries that were used. Each type occurred in the data only once, the types being *at*+poss.+-*ing*., *at*+*wh*-clause, and *in*+*wh*-clause, respectively illustrated here:

>   (7)   In the first place we have had to <u>rejoice</u> **two or three times every day** at your having such very delightful weather for the whole of […] (Jane Austen, 1796-1817, *Letters to her Sister Cassandra and Others*)
>   (8)   Nelson, <u>rejoicing</u> at what he called this glorious finish to the whole French Mediterranean fleet, rejoiced also that he […] (Robert Southey, 1813, *Life of Horatio Lord Nelson*)
>   (9)   Every thing was explained to him by Mrs. Dashwood, and he found fresh reason to <u>rejoice</u> in what he had done for Mr. Ferrars […] (Jane Austen, 1811, *Sense and Sensibility*)

Also, there was only one occurrence in the data of the rare *in*+-*ing*. pattern discovered by Poutsma:

>   (10)   We shall <u>rejoice</u> in being so near Winchester when Edward belongs to it […] (Jane Austen, 1796-1817, *Letters to her Sister Cassandra and Others*)

Considering complexity factors, it is noticeable that sentence (7) involves insertions between the verb and the complement *at*+poss.+-*ing*., in which case the insertions represent quantity adjunct (*two or three times*) and time adjunct (*every day*). This makes the sentence more complex, but it is interesting that a non-finite clause (less explicit) is used instead of a finite (more explicit).

5.3.2 Non-sentential complements

Non-sentential complements were the most common complement group for our verb, with 78 tokens in total. The most frequent non-sentential pattern was *in*+NP with 50 tokens:

>   (11)   a) Not one but would <u>rejoice</u> in my downfall. (William Harrison Ainsworth, 1843, *Windsor Castle*)
>
>   b) I <u>rejoiced</u> **too** in the wine of the Lebanon. (William Kinglake, 1844, *Eothen, or Traces of Travel Brought Home from the East*)

c) …of the old Lord and Lady Capulet, who having but this one, one poor loving child to *rejoice* **and solace** in, cruel death […] (Charles Lamb, 1807, *Tales from Shakespeare*)

Regarding semantic roles, it is noticeable that in sentence (11a) the verb *rejoice* assigns thematic roles of experiencer to the NP *one*. This is also the case in (11b), where the experiencer is denoted to *I*. All of the complements in these sentences can be distinguished as themes, i.e. 'the entity affected by the action or state expressed by the predicate' (Haegeman 1991, 42). Interestingly, sentence (11c) is an example of coordination, as the complement is shared by two verbs, *rejoice* and *solace*.

The second most common pattern in the data was *at*+NP with 23 occurrences:

(12)   a) She was too young to go to assemblies, at which her father <u>rejoiced</u>, for he had […] (Elizabeth Gaskell, 1848, *Mary Barton*)

b) In a moment they were all out of the chaise, <u>rejoicing</u> at the sight of each other. (Jane Austen, 1813, *Pride and Prejudice*)

c) …is it possible, Mrs Huntington, that you can <u>rejoice</u> at his return? (Anne Brontë, 1848, *The Tenant of Wildfell Hall*)

d) …like hungry hawks, <u>rejoicing</u> at the prospect of the war, hoping […] (John Galt, 1821, *Annals of the Parish*)

Recalling Wesche's (1986) analysis of the prepositional NP patterns, we can investigate whether the examples above support her findings regarding the prototypical concepts and their projected abstract concepts. As we can see from looking at the examples (11-12), the NP is something rather abstract, such as *my downfall* in sentence (11a). Also, the preposition *in* evokes a sense of inclusion in the event, and the NP can be interpreted as an abstract space, in which the rejoicing takes place. In sentence (12b) the NP *the sight*, preceded by *at*, can be interpreted as a point which evokes a sense of being outside of the situation. The NP is thus the object of rejoicing, and it can be rather concrete in meaning in this case. Unfortunately there were no occurrences of the *on*+NP pattern in the data, preventing us from seeking further support for Wesche's analysis on that matter.

Noun phrase complements contributed four tokens, or 2,2%, to the total amount of all complement types. Two of the NP complements are illustrated below:

(13)   a) …with a notice prohibiting the further sale of the work. One circumstance <u>rejoiced</u> me. (George Henry Borrow, 1842, *The Bible in Spain*)

b) …for half the fish were frying to <u>rejoice</u> the hearts of H. R. Highness's loyal subjects, and bonfires blazing […] (William Beckford, 1783, *Dreams, Waking Thoughts, and Incidents*)

Zero complements contributed 23,1% to the total amount of different complement types.

There were altogether six cases of zero complements in which the verb was being used as an

imperative, two of them illustrated here:

(14)   a) <u>Rejoice</u>! o'er the sluggard tide Of the Styx thy bark can glide, And thy steps evermore shall rove … (Edward Bulwer-Lytton, 1834, *The Last Days of Pompeii*)

b) <u>Rejoice</u> ye Forty: doff your greasy wool Bonnets, which shall become Caps of Liberty. (Thomas Carlyle, 1837, *The French Revolution*)

There were also cases in the CLMET where the verb was not used as an imperative:

c) …had Lucy been more amiable, she OUGHT to have <u>rejoiced</u>. (Jane Austen, 1811, *Sense and Sensibility*)

d) If you escape a bilious attack, I shall wonder almost as much as <u>rejoice</u>. (Jane Austen, 1796-1817, *Letters to her Sister Cassandra and Others*)

The zero complement was surprisingly frequent in comparison with the other complement types, and

it seems that it is used in cases where the verb does not require a complement to be a completed

construction. In addition, there were a few examples of zero complements including an adjunct. An

example of this is demonstrated in the following:

e) When you behave well, she can only <u>rejoice</u> with trembling; she has no security […] (Anne Brontë, 1848, *The Tenant of Wildfell Hall*)

In the example above, *with trembling* represents a manner adjunct, but there is no complement present

to go with *rejoice*.

5.3.3 Sense and structure

The sense-pattern relations in the CLMET2 are presented in the following table.

Simplified Sense	Number of Tokens	Patterns
I To gladden a person or his spirits	4	NP
	2	NP+*to*-inf.
	Total: 6	

	(3,3%)	-
II To make oneself glad [refl.]	-	-
III Be delighted	50	*in*+NP
	23	*at*+NP
	42	zero
	28	*to*-inf.
	21	*that*-clause
	1	*for*+NP
	1	*in*+-*ing.*
	3	*at*+-*ing.*
	1	*in*+*wh*-clause
	1	*at*+*wh*-clause
	4	*in*+poss.+-*ing.*
	1	*at*+poss.+-*ing.*
	Total: 176 (96,7%)	
IV Be named	-	-

Table 10: Meanings and patterns in the CLMET 2

Sense I: *To gladden a person or his spirits*. There were six tokens representing this meaning in the data. Interestingly, the patterns are the same as the ones observed to accompany this sense in the first part of the CLMET, NP and NP+*to*-infinitive.

Sense II: *To make oneself glad [refl.]*. No occurrences of this sense in the data.

Sense III: *Be delighted*. An overwhelmingly frequent sense with 96,7% of the tokens exemplifying this meaning. Related with all the patterns in the data disregarding NP and NP+*to*-inf.

Sense IV: *Be named*. No occurrences of this sense in the data.

5.3.4 Review of the data

This section discussed and analysed the data from the years 1780-1850. The normalised frequency of all the forms of *rejoice* was 48.9 pmw in that time period, which is 7,2% higher than in the first part of the CLMET. This suggests that the popularity of the verb in question has grown since the time period of 1710-1780. The total number of tokens was 182, and they were distributed among fourteen different complement types. The order of the most frequent complement types has not changed since the first part of the corpus, as *in*+NP was again the most common complement pattern with 50 tokens, followed by the zero complement, *to*-infinitive, *at*+NP, *that*-clause and NP. There were four patterns in the data that were not discussed by the dictionaries and grammars: NP+*to*-infinitive, *at*+*wh*-clause, *in*+*wh*-clause and *for*+NP. Excluding the patterns *at*+*wh*-clause and *in*+*wh*-clause, the two remaining

patterns were attested already by CLMETEV1, thus, *at*+*wh*-clause and *in*+*wh*-clause were the only new patterns realised by this part of the corpus. Compared to the years 1720-1780, the second part of the corpus reveals an increase in the portion of the sentential complement type in comparison to the non-sentential complement type that was exceedingly frequent in the first part. In the years 1780-1850 sententials account for 34,1 % of the data, as the proportion of non-sententials has dropped to 42,9%. However, even if their proportion has evened, non-sententials remain as the most common complement type in this sub-corpus. Wesche's analysis of the prepositional NP patterns was also discussed in this part of the corpus, and supportive data was found at least for the patterns *at*+NP and *in*+NP. The *horror aequi* principle was attested, however, some violations were also found regarding other rules of usage. The main violations concerned the complexity principle, and Allerton's observation regarding the hypothetical nature of *to*-infinitives. The data revealed cases where these rules and observations did not apply. Cases of parenthetical insertion, extraction and extraposition were also found. The connection between form and meaning has not changed since the first part of the corpus, as sense III remains as the overwhelmingly most frequent sense with 96,7% of the tokens expressing that meaning. The remaining 3,3% of the tokens belonged to sense I, and the patterns connected with that sense are the same as those found in the first part, NP and NP+*to*-infinitive. Senses II and IV have not yet emerged in the data.

5.4 *Rejoice* in the CLMETEV 1850-1920

The third and final part of the CLMETEV comprises 6,1 million words, and a simple search conducted on this part of the corpus retrieved altogether 199 tokens. Similarly to the first and second parts of the CLMET, there were some irrelevant tokens in the third part as well. The form *rejoiced* was found to be adjectival in 11 cases, and the form *rejoicing* nominal in 21 cases. Two examples of each are respectively presented below to clarify the distinction:

> a) …with a sincerity that none could doubt, how rejoiced she was at his coming, and how dearly she loved him – now and ever. (Dinah Maria Mulock Craik, 1850, *Olive*)

> b) …the manners were English, I was rejoiced to see that from the highest to the lowest the hearts of the people were English also. (Isabella Lucy Bird, 1856, *The Englishwoman in America*)

c) He was received with rejoicing by the whole population. (Winston S. Chuchill, 1899, *The River War* (unabridged edition))

d) Rachel was exceedingly depressed, restless, and feverish, and shrank from her mother's rejoicing, declaring that she was mistaken, and that nothing more must be said. (Charlotte Mary Yonge, 1865, *The Clever Woman of the Family*)

The omission of the adjectival and nominal tokens leaves us with 167 tokens that are to be more closely inspected, starting with the distribution of patterns as presented in table 11 below:

Complement type	*rejoice*	*rejoiced*	*rejoices*	*rejoicing*	**Total**	%	NF/million
at+-ing.	-	1	-	-	**1**	0,5	0.2
in+-ing.	-	2	-	1	**3**	1,7	0.5
to-inf.	11	9	1	1	**22**	13,1	3.6
that-clause	5	5	-	2	**12**	7,1	1.9
Sentential total	**17**	**17**	**1**	**4**	**39**	**23,3**	**6.4**
NP	5	7	-	-	**12**	7,1	1.9
at+NP	2	4	-	3	**9**	5,3	1.5
in+NP	23	14	3	21	**61**	36,5	10.0
over+NP	4	3	1	-	**8**	4,7	1.3
for+NP	-	1	-	-	**1**	0,5	0.2
Non-sentential total	**34**	**29**	**4**	**24**	**91**	**54,4**	**14.9**
zero	14	11	2	11	**38**	22,8	6.2
Total	**64**	**57**	**7**	**39**	**167**	**~100**	**27.4**

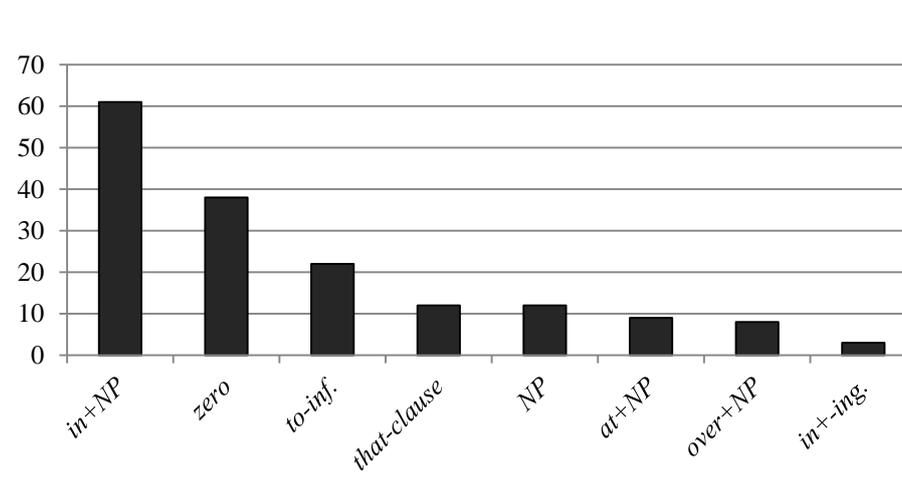**Table 11: complement patterns of the verb *rejoice* in the CLMETEV 3**

Figure 3: CLMETEV 3 complements in order of frequency.

5.4.1 Sentential complements

Compared to non-sentential complements, sententials were a minority in this sub-corpus with only 39 tokens. Non-sententials accounted for 91 tokens, thus, their proportion was 54,4% of the data.

However, if we first consider the sentential complements, the *to*-infinitival construction was the most frequent with 22 tokens:

(1)   a) …because of the mental suffering involved in the process, methinks we should <u>rejoice</u> to suffer. (Catherine Mumford Booth, 1879, *Papers on Practical Religion*)

            b) "Ay, they'll be a partie carree," said I. My blood was up, and I <u>rejoiced</u> to have killed them. (Anthony Hope, 1894, *The Prisoner of Zenda*)

            c) …perforce love the woman he found in every way supreme, and whom he <u>rejoiced</u> to own his superior. (Eliza Lynn Linton, 1885, *The Autobiography of Christopher Kirkland*)

            d) …they would have impoverished – is not too strong a word – the country by taking the money's worth of the mines, estates, mansions, freehold streets and squares of our metropolis out of it without scruple; <u>rejoicing</u> **so** to bleed the Protestant faith. (George Meredith, 1895, *The Amazing Marriage*)

In the *to*-infininitival constructions, the distribution of the semantic roles assigned to PRO was the following: PRO was an agent in 11 cases, an experiencer in 9, also, there were single occurrences of the PRO being a benefactive and a theme. Example (1a) above is an example of PRO being an experiencer, since the act of suffering can be interpreted as lacking effort and volition, whereas in (1b) PRO is an agent, since the verb *kill* implies that an action of concrete nature is committed. Also, it needs to be clarified that in this division of semantic roles all of the roles assigned by sensory verbs (such as *to hear*, *to see*) are classified as experiencers, since such verbs refer more to mental experiences rather than to concrete and intentional actions. Example (1c) represents a case where PRO is an agent, referring to a person recognizing *his superior*. Sentence (1c) also involves extraction, as there is a gap between *to own* and *his*. Finally, in example (1d) PRO can be interpreted as an agent, since the verb *to bleed* figuratively describes a volitional action. Also, the notion of *to*-infinitives being forward-looking and hypothetical is present in examples (1a-d), as especially sentence (1b) seems to be the most prominent violation of this notion. Semantically, (1b) refers to the past, and the act of killing cannot be interpreted as hypothetical in this case.

     That-clauses covered 7,1% of the data, two of the twelve tokens that were found are listed in the following:

(2)   a) …while Madame Fosco was assuring me, in her calmest and most conventional manner, that she <u>rejoiced</u>, **for all our sakes**, that Sir Percival's conduct had not obliged her husband and herself to leave Blackwater. (Wilkie Collins, 1859-60, *The Woman in White*)

b) 'As if Lorna would eat sausages!' said I, with appearance of high contempt, though rejoicing **all the while** that mother seemed to have her name so pat… (Richard Doddridge Blackmore, 1869, *Lorna Doone, a Romance of Exmoor*)

Example (2a) is an interesting case, since it involves both parenthetical insertion and a violation of the *Horror aequi* principle. However, the two successive *that*-clause constructions might be justified by the insertion *for all our sakes*, which seemingly is complex enough to require an explicit linguistic environment, in this case a *that*-clause. Still, there is a violation of the *Horror aequi* principle, however, we need to remember that it can also be seen as a stylistic choice in fictional texts. If we consider the second occurrence of an insertion in example (2b), it can be argued whether the insertion affected the choice of complement. It could be interpreted as a case of insertion that is complex enough to take a more explicit *that*-clause complement, thus it would follow the Complexity principle.

The patterns *at+-ing*. and *in+-ing*. were very rare in the data, with only four tokens in total. There was only one occurrence of the pattern *at+-ing*., as well as three cases of the pattern *in+-ing*., all of them listed below, respectively:

(3)   Therewith began a lengthy meal ; and Malcolm Stewart rejoiced at finding himself seated next to the Lady Esclairmonde... (Charlotte Mary Yonge, 1870, *The caged lion*)

(4)   a) …thought our way of keeping Christmas venerable, rejoiced in dispensing the squire's bounties — called them bounties, joined Heriot in abusing foreign countries… (George Meredith, 1870, *The adventures of Harry Richmond*)

b) …the sweeter for the inevitable doom that was to follow; and I rejoiced in being able to waste two whole days with her. (Anthony Hope, 1894, *The Prisoner of Zenda*)

c) Bakers brought stale bread; butchers, refuse meat; citizens, their broken victuals— all rejoicing in being freed from the nuisance of beggary. (William Booth, 1890, *In Darkest England, and the Way Out*)

Regarding semantic roles, examples (3) and (4a-c) offer a chance of analysing the understood subject PRO. In sentence (3), PRO can be interpreted as an experiencer, since in this case the verb *to find* has the meaning of discovering oneself in a particular situation, rather than referring to a concrete identification of something present. In example (4b) PRO is a theme, as *being able to do something* simply expresses the state denoted by the predicate. In (4c) PRO can be interpreted as a patient, since

someone is affected by the action of *being freed*. Finally, in sentence (4a) PRO is an agent, as the verb *to dispense* refers to a concrete action involving a degree of volition.

5.4.2 Non-sentential complements

As was noticed earlier, non-sentential complements were the most common group of complements in the data with 91 tokens. Continuing the distribution of the first two parts of the corpus, *in*+NP was again the most frequent pattern accounting for 36,5% of the data:

> (5)   a) I will go forth and <u>rejoice</u> therein; and if misfortune come, I will meet it… (Dinah Maria Mulock Craik, 1850, *Olive*)
>
> b) The vulguses being finished by nine o'clock, and Martin having <u>rejoiced</u> **above measure** in the abundance of light, and of Gradus and dictionary, and other conveniences… (Thomas Hughes, 1857, *Tom Brown's Schooldays*)
>
> c) Not a member of our community <u>rejoices</u> **more** in the blessed sacrament, and when I place the body of our Lord… (Hall Caine, 1897, *The Christian*)
>
> d) …in the endless history of God the Spirit, <u>rejoicing</u> **so greatly** in the admirable spectacle that it never ceases to evolve from matter new conditions. (Walter Pater, 1896, *Gaston de Latour, an Unfinished Romance*)

Examples (5b-d) involve an insertion between the verb and the complement, and in all three cases the insertion is an adjunct of measure. Also, in (5a-d) the NP in the complement pattern is semantically inanimate, which was overwhelmingly common in the data, as there were only four cases where the NP was found to be animate:

> e) 'I don't <u>rejoice</u> in insects at all', Alice explained, 'because I'm rather afraid of them—at least the large kinds. (Lewis Carroll, 1871, *Through the Looking Glass*)
>
> f) Yet, even so, she <u>rejoiced</u> in her son and the high spirit he displayed, while the instinct of romance which inspired… (Mary St Leger Kingsley, 1901, *The History of Sir Richard Calmady*)
>
> g) …and when this is confessed and renounced people get the presence of God and go away <u>rejoicing</u> in Him. (Catherine Mumford Booth, 1879, *Papers on Aggressive Christianity*)
>
> h) 'What sort of insects do you <u>rejoice</u> in, where YOU come from?' (Lewis Carroll, 1871, *Through the Looking Glass*)

Also, sentence (5h) involves extraction of the interrogation type. Again, if we look at the semantics of the NPs in the *in*+NP constructions, they evoke a sense of inclusion in the situation, or refer to a spatial entity, just as Wesche (1968, 385) suggested.

Noun phrase complement was the second most common pattern with 12 cases, 10 of which involved an animate NP:

(6)   a) "oh, mother, mother!" she murmured, "surely it would <u>rejoice</u> thee in thy heaven to know that even thy death left a blessing behind, and that I, out of my bitter grief… (Dinah Maria Mulock Craik, 1850, *Olive*)

b) It will <u>rejoice</u> my husband so much. (George Meredith, 1895, *The Amazing Marriage*)

c) … the instant information of the event they expected to surprise her as them, and to <u>rejoice</u> her still more than them, must not delay making their report of it to Her Majesty. (Augusta Webster, 1884, *Daffodil and the Croäxaxicans*)

The NP following the verb was semantically inanimate in only two cases:

d) …in the meanwhile I would remind you that your capture would <u>rejoice</u> the hearts of many. (Percy James Brebner, 1910, *The Brown Mask*)

e) We carried the deer to the tent, and <u>rejoiced</u> our coolies with the sight of venison… (Sir Samuel White Baker, 1854, *The Rifle and the Hound in Ceylon*)

The corpus data yielded nine tokens of the pattern *at*+NP, all of which involved an inanimate NP.

Four examples of this pattern are presented below:

(7)   a) It would be hard to say whether she lamented or <u>rejoiced</u> at this. (Dinah Maria Mulock Craik, 1850, *Olive*)

b) …and he <u>rejoiced</u> **to me** at the immense relief it gave him. (George Meredith, 1870, *The Adventures of Harry Richmond*)

c) …burst of gladness betokened that the feathered mother <u>rejoiced</u> **once more** at the possession of her young. (Mathilde Blind, 1885, *Tarantella*)

d) …celebrated the announcement in the newspapers of a considerable emigration from the Papal Dominions by <u>rejoicing</u> at 'this outcrowding of many, throughout the harlot's domain, from her sins and her plagues'. (Edmund Gosse, 1907, *Father and Son*)

If we consider the insertions in (7b) and (7c), we could interpret the first one as involving a patient NP *me* and a prepositional *to*. Moreover, the insertion in (7c) is a temporal adjunct, indicating an aspect of

frequency expressed by the verb. Regarding Wesche (1968), the semantics of the *at*+NP constructions

yield an intuition of a topological point from which the situation is viewed.

The complement pattern *over*+NP was surprisingly frequent in the data, as it accounted for

eight tokens in total:

(8)   a) And now, on the contrary, you sell yourself for gold to a man you don't care for, and all your friends <u>rejoice</u> over you, and a minister of public worship sanctions… (Wilkie Collins, 1859-60, *The Woman in White*)

      b) 'When did I <u>rejoice</u> **or triumph** over you?' (Mathilde Blind, 1881, *George Elliot*) [coordination]

      c) …in the meanest and most selfish form of sin – allowing him to <u>rejoice</u> over the victory won, through fraud or sleight-of-hand. (Catherine Mumford Booth, 1879, *Papers on Practical Religion*)

Examples (8a) and (8b) are examples of semantically animate NPs, while in (8c) the NP is inanimate.

Overall, the data revealed a dominance of the inanimate NPs, as six tokens out of nine involved [-

HUMAN] NP, leaving (8a&b) as the only examples of animate NPs. Also, sentence (8b) is an example

of coordination, as the complement *over you* is shared by two successive verbs, *rejoice* and *triumph*.

Complement pattern *for*+NP occurred in the data only once:

(9)   Olive told him all the good news she had to tell, and he <u>rejoiced</u> **with her** for Christal's sake. (Dinah Maria Mulock Craik, 1850, *Olive*)

As we can see, there is an insertion *with her* between the verb and the complement. In this case the

insertion can be interpreted as an adjunct of modification, as it indicates the manner of the action

expressed by the verb. The NP in the complement pattern is semantically inanimate.

Zero complements were very common in the data, as they accounted for 38 tokens in total.

(10)   a) Let those who know this happiness <u>rejoice</u>! (Dinah Maria Mulock Craik, 1850, *Olive*)

      b) …to come down to Parliament with a peace in his hand, Parliament would probably have <u>rejoiced</u>, and the nation under the guidance of Parliament, though saddened by its losses… (Walter Bagehot,1867, *The English Constitution*)

      c) That is a genius. Only nobody suspects it. I wear a crown in the last act. And everybody <u>rejoices</u>. (Jerome K. Jerome, 1909, *They and I*)

      d) The sun was still shining in the courtyard, and the birds were still singing and <u>rejoicing</u>. (Hall Caine, 1897, *The Christian*)

5.4.3 Sense and structure

The distribution of senses and patterns is shown in table 12 below.

Simplified Sense	Number of Tokens	Patterns
I To gladden a person or his spirits	11	NP
	Total: 11 (6,6%)	
II To make oneself glad [refl.]	1	NP
	Total: 1 (0,6%)	
III Be delighted	60	*in*+NP
	9	*at*+NP
	38	zero
	22	*to*-inf.
	12	*that*-clause
	1	*for*+NP
	3	*in*+-*ing.*
	1	*at*+-*ing.*
	8	*over*+NP
	Total: 154 (92,2%)	
IV Be named	1	*in*+NP
	Total: 1 (0,6%)	

Table 12: Meanings and patterns in the CLMETEV 3

Sense I: *To gladden a person or his spirits*. There were altogether 11 tokens of the complement pattern NP in the data expressing sense I.

Sense II: *To make oneself glad [refl.]*. One token in the data was denoted to sense II, with the complement pattern NP:

> a) 'Then, in thanksgiving for this great gift, favour, and grace, rejoice ye and be exceeding glad, and engage ye in praising and sanctifying the Lord of Hosts. (Thomas Kelly Cheyne, 1914, *The Reconciliation of Races and Religions*)

Sense III: *Be delighted*. 92,2% of the tokens in the data belonged to this category of meaning.

Excluding NP, all patterns in in the data were connected with this sense.

Sense IV: *Be named*. One occurrence of this sense in the data with the pattern *in*+NP:

> b) …but because Alfred Yule had been telling me all about this same editor, who rejoices in the name of Fadge. (George Gissing, 1891, *New Grub Street*)

5.4.4 Review of the data

This section has examined the data from the years 1850-1920. The normalised frequency of the verb has dropped dramatically from the first two parts of the corpus, as it is now only 27.4 pmw. This means a 43,9% decrease in the use of *rejoice* as we enter the current time period of the data. There were altogether 167 tokens that were distributed among 10 different complement patterns. As could have been predicted on the basis of the first two parts of the CLMET, *in*+NP was again the most frequent complement pattern with 61 tokens. The second most common pattern was the zero complement, followed by *to*-infinitive, *that*-clause, NP and *at*+NP. The order of frequency has been relatively stable throughout the corpus, as there have been only very slight changes. The pattern not realised by the dictionaries and grammars was *for*+NP, however, it was discussed by the first two parts of the corpus. Thus, no new complement patterns were discovered merely on the basis of this sub-corpus. As we noticed in the analysis of the previous sub-corpus, the difference between sentential and non-sentential complements was not significant, even though non-sentential complements continued to dominate the data. However, in this part of the corpus the division is clearer, as sententials accounted for 39 tokens, while the number of non-sententials came up to 91 tokens. The high number of occurrences of the patterns NP (12 tokens/1.9 pmw) and *over*+NP (8 tokens/1.3 pmw) is also worth mentioning, as the latter did not occur in the first two parts of the corpus at all, while the frequency of the former saw a rise in the CLMET3 if compared to the previous sub-corpora. It will be of interest whether the frequency of these patterns increases or decreases as we enter Present day English. Regarding the principles guiding complementation, there was a violation of the *Horror aequi* principle in the data, as well as an attestation of the Complexity principle. Cases of extraction, parenthetical insertion and extraposition were also found. The semantic roles of PRO were also discussed, and the semantic characteristics of the patterns involving an NP were analysed. As was expected on the basis of the previous two sub-corpora, NP was only rarely animate. If we consider the putative connections between form and meaning, sense III was the most common sense with 92,2% of the data belonging to that category. Sense I accounted for 11 tokens, all of them NP complements. Also, the last part of the corpus saw the first emergences of senses II and IV with patterns NP and *in*+NP, respectively.

5.5 *Rejoice* in the BNC

We now turn to the analysis of three BNC sub-sections Imaginative prose, World affairs and Belief

and thought, respectively.

5.5.1 Imaginative prose

The BNC sub-corpus imaginative prose consists of 16,5 million words. The data collection retrieved

90 tokens, 12 of which had to be discarded for their nominal properties. Some of the omitted tokens

are illustrated below:

> a) …a national holiday in Tibet, a 'Day of Gladness and Rejoicing' in Upper Sumatra, and, no
> doubt… (HWN 2982)
> b) This should be an occasion for rejoicing. (BIX 1231)
> c) …and windows wide open to emit the sounds of loud, harmonious rejoicing. (FRS 658)
> d) …been a parade, a feast, a time of play and rejoicing. (GOS 756)

The 78 relevant tokens and their complement patterns are distinguished in table 13:

Complement type	*rejoice*	*rejoiced*	*rejoices*	*rejoicing*	**Total**	%	NF/million
at+-ing.	-	1	-	-	**1**	1,2	0.1
in+-ing.	-	2	-	-	**2**	2,5	0.1
to-inf.	1	2	1	-	**4**	5,1	0.2
that-clause	2	2	-	3	**7**	8,9	0.4
Sentential total	**3**	**7**	**1**	**3**	**14**	**17,9**	**0.8**
at+NP	-	4	1	2	**7**	8,9	0.4
in+NP	-	13	3	6	**22**	28,2	1.3
over+NP	1	-	-	-	**1**	1,2	0.1
for+NP	-	1	-	-	**1**	1,2	0.1
Non-sentential total	**1**	**18**	**4**	**8**	**31**	**39,7**	**1.9**
zero	12	8	4	9	**33**	42,3	2.0
Total	**16**	**33**	**9**	**20**	**78**	**~100**	**4.7**

Table 13: complement patterns of the verb *rejoice* in the BNC: Imaginative prose

As we can see from the table, non-sententials accounted for 31 tokens, whereas the number of

sentential patterns found is only 14. However, as the sentential tokens include gerundial patterns such

as *at+-ing.* and *in+-ing.*, these will be of particular interest in the following section.
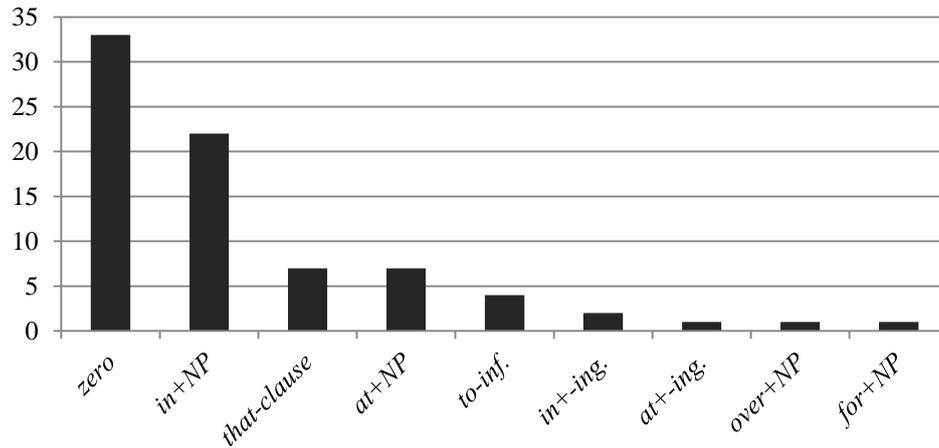
Figure 4: BNC Imaginative prose complements in order of frequency.

5.5.1.1 Sentential complements

As mentioned above, sentential complements accounted for 14 tokens in the data, only 17,9% of the total of 78 tokens. The patterns *at+-ing.* and *in+-ing.* occurred in three examples, as distinguished below:

(1)   …a woman whose every fibre <u>rejoiced</u> at being a clergy wife. (CMJ 1964)

(2)   a) …an Austrian refugee analyst of her acquaintance, who frequently and unashamedly <u>rejoiced</u> in having had in his house at one time no less… (FB0 584)
         b) She <u>rejoiced</u> in being free from the place, but she talked of it… (H8L 1881)

Regarding the subject of these sentences, again, it is semantically [+ HUMAN] in all three tokens. Also, the semantic role of the lower subject, PRO, seems to be a theme in sentences (1) and (3), and a benefactive in (2), as it expresses possession. If we consider the semantic input of the complements, the gerundials in the examples above contribute to the meaning of the sentence, making the action non-hypothetical.

To-infinitives accounted for a rather low number of four tokens in the data, all of them illustrated below:

(3)   a) SIR JACOB: All your neighbours will <u>rejoice</u> to hear it for thou wast ever an unmanageable rake. (FU4 1529)
         b) …a defence laser which was tracking in that forbidden direction, and <u>rejoiced</u> to see its shield fail and the shark-snouted gun warp and drip… (CJJ 2461)
         c) … Joanna, he was told, by a rather uppity landlord who <u>rejoiced</u> to see privilege spiked, was out in the fields. (FP1 1920)

d) …'limited grey matter Miss Lilian may have, yet still she <u>rejoices</u> to be alive. (AC5 2286)

In (3a)-(3c), the verb *rejoice* is combined with a sensory verb, *to see* or *to hear*, thus affecting the semantic role of the understood subject PRO. In all three cases PRO can be interpreted as an experiencer, since sensory observations can be subconscious or experienced without effort. However, example (3d) is slightly more ambiguous to interpret, since the interpretation depends on the definition of what it is to 'be alive'. In this case, it could be interpreted as a factual state of circumstances that requires no conscious effort. Therefore, the semantic role of PRO in (3d) could be a patient. Also, as *rejoice* normally occurs with animate beings, the subjects in all of the examples were found to be [+HUMAN]. The *to*-infinitive can also be interpreted as forward-looking, especially in sentences (3a) and (3d), while the notion of to-infinitives referring to a hypothetical situation is attested by at least examples (3a-c). In (3d), the realness of the situation is less questionable.

We then turn to *that*-clauses, a complement type that contributed 8,9% of the entire data. Interestingly, no zero *that*-clauses were found in this sub-corpus, thus, both examples below represent cases where *that* is present:

(4)   a) …at St Saviour's faithfully to Peter, and then they could <u>rejoice</u> **together** that prayers had been answered and that… (CMJ 1775)
          b) …Shelley stood, <u>rejoicing</u> that she hadn't missed this moment for another week. (JYA 1362)

Higher and lower subjects were found to be referentially different in 6 cases out of 7, leaving example (4b) as the sole case with co-referential higher and lower subjects. In the case of example (4b), it is justified to wonder why the lower clause is not infinitival instead of the more bulkier *that*-clause. This is against the finding according to which co-referent subjects choose a non-finite over a finite complement (Egan, 2006). Regarding the short insertion and the Complexity Principle in (4a), it can be suggested that even though the insertion *together* is not complex enough to require an explicit grammatical environment, the choice of a *that*-clause complement could be justified since the infinitival construction is not an option in this case.

5.5.1.2 Non-sentential complements

Non-sentential complements accounted for 31 tokens or 39,7% of the data, and the majority of non-sentential complements were found to represented the pattern *in*+NP. The percentage of *in*+NP complements was 28,8, while the number of tokens came up to 22 occurrences, some of them selected below:

(5) a) He had <u>rejoiced</u> in its glossy midsummer beauty which had sheltered the gentle ring-doves… (ASE 1633)
b) Just a loner, who <u>rejoices</u> in his own autonomy.' 'Do you think there might… (C8D 2492)
c) …'is he the murderer or just a spiteful man who <u>rejoices</u> in the humiliation of others? (HU0 3257)

The data revealed a strong tendency for the NP to be semantically inanimate, as it was often abstract as in examples (5a), (5b), and (5c). The NP was found to be [-HUMAN] in 21 cases out of 22, leaving us with only one example with a semantically animate NP:

d) Americans <u>rejoiced</u> in white heavyweight boxer, Jess Willard's victory over black Jack… (ATE 3150)

The second most common non-sentential complement pattern was *at*+NP with seven occurrences, three of them presented below:

(6) a) The assembled crowd <u>rejoiced</u> at this unexpected joy, and Lunch stood quietly unnoticed by the… (APW 2682)
b) …to be about two acres in extent, and <u>rejoiced</u> **anew** at her amazing luck. (BMU 1809)
c) …its brown eyes staring glassily over those who now <u>rejoiced</u> at its death. (H90 510)

Again, if we consider the semantics of the NPs, all seven complement patterns were found to carry an inanimate NP. Three NPs were more abstract as in examples (6a) or (6b), while in the remaining four cases, such as (6c), they were more concrete, yet still inanimate. Recalling Wesche (1968), it can be said that the examples (5-6) support her findings about the semantic nature of the prepositional NP constructions, as the NPs that couple with the prepositions *at* and *in* differ spatially and can be either concrete or abstract. Unfortunately there were no occurrences of the *on*+NP pattern to examine her views further.

The patterns *over*+NP and *for*+NP accounted for only two instances in the data:

(7)   We regret the part we'ave left, rather than <u>rejoice</u> over the part we'ave preferred! (EEW 1721)

(8)   …and she and Edward looked so happy that Sophie <u>rejoiced</u> for them. (JYE 4441)

Regarding the characteristics of the NPs in these cases, it can be said that example (7) is a case of inanimate NP, while the NP in example (8) represents a semantically animate, or [+HUMAN] NP.

The number of zero complements was really high in the data, as they contributed 42,3 per cent or 33 tokens of the entire sub-corpus data. The zero complements that were found represented mainly two different uses, as the verb was either at the end position of the sentence, as in example (9a), or it was followed by an adjunct such as an *as*-clause in (9b). (9b) is an interesting example also because it represents a case of coordination, since the *as*-clause is connected with two verbs, *rejoice* and *mourn*, respectively.

(9)   a) Biff <u>rejoiced</u>. The spider on his face smiled. (CJJ 1676)
         b) The nation <u>rejoices</u> or mourns As this happy or sombre day dawns. (G11 31)

5.5.1.3 Sense and structure

In this section I will discuss the connections between sense and structure in the BNC sub-corpus Imaginative prose. The distribution of the sense-pattern correlations is presented in table 14 below, also, the comparison with sense and structure in the CLMET data will be carried out further in this thesis.

Simplified Sense	Number of Tokens	Patterns
I To gladden a person or his spirits	-	-
II To make oneself glad [refl.]	-	-
III Be delighted	19	*in*+NP
	7	*at*+NP
	33	zero
	4	*to*-inf.
	7	*that*-clause
	1	*for*+NP
	2	*in*+*-ing.*
	1	*at*+*-ing.*
	1	*over*+NP
	Total: 75	

	(96,2%)	
IV Be named	3	*in*+NP
	Total: 3 (3,8%)	

Table 14: Meanings and patterns in the BNC: Imaginative prose

Judging by the low number of tokens exemplifying senses I and II in the CLMET data, the representation of those senses was expected to be a rather marginal one also in this sub-corpus. However, senses I and II were not present in the data at all, possibly because the patterns or constructions they are usually connected with were not found in the data. These patterns are a direct object NP for sense I, and a reflexive NP for sense II.

Sense III: *Be delighted*. 96,2% of the data took sense III, also, all of the patterns found in this sub-corpus belonged to this sense group.

Sense IV: *Be named*. Three occurrences of this meaning in the data:

      a) He <u>rejoiced</u> in the name of Blossom, and continued… (ABW 1286)
      b) This hotel looked older and <u>rejoiced</u> in the name of the Lion's Cub. (H8J 1175)
      c) It was very angry though and in chapters past it had <u>rejoiced</u> in the name of Bill. (HTU 4769)

5.5.1.4 Review of the data

This section has examined the BNC sub-corpus Imaginative prose, which provides the data of Present day English for this thesis. The normalised frequency of the verb itself has dropped from 27.4 pmw (CLMETEV3) to only 4.7 pmw, which means a 82,8% decrease of use as we enter the period of Present day English. However, as the genre of the texts in the data has remained untouched since the CLMET, we can only assume that the reason behind the decrease is the slow process of vanishing of the verb, not stylistic or other textual issues. There were altogether 78 tokens, which were distributed among 9 different complement patterns including the zero complement. As we arrive to the period of Present day English, the zero complement (33 tokens) rises as the most frequent complement pattern, a place earlier dominated by *in*+NP. It is, however, still the second most common pattern also in this sub-corpus, followed by that-clause, *at*+NP, *to*-infinitive, *in*+-*ing*, *at*+-*ing*., *over*+NP and *for*+NP, respectively. Non-sentential complements still dominate over sentential ones, with a normalized frequency of 1.9 pmw. This is much higher than the NF of sentential patterns, 0.8 pmw. Apart from

the pattern *for*+NP that was found only once in the data, all of the patterns in the BNC were discussed by the dictionaries and grammars that were investigated. Recalling the high occurrences of the patterns NP and *over*+NP in the CLMETEV3, it is worth mentioning the unexpected loss of these patterns in Imaginative prose. NP complements have disappeared altogether, while the pattern *over*+NP occurred only once. In this data the tokens took either senses III or IV, however, sense III continued to dominate the data with the support of 96,2% of the tokens. A rare sense in the CLMET, sense IV accounted for three tokens in this sub-section of the BNC.

5.5.2 World affairs

The BNC sub-section World affairs consists of 17,2 million words in 483 different texts. Following the same method used with the CLMET, separate searches were conducted for all four forms *rejoice*, *rejoiced*, *rejoices* and *rejoicing*, even though the BNC is a tagged corpus. Therefore, all of the tokens drawn from World affairs had to be manually identified and the non-verbal forms separately eliminated. The separate searches returned altogether 86 tokens, 23 of which were irrelevant to this study and were thus disregarded. All of the disregarded tokens represented cases where the form *rejoicing* was used as a noun, four of them illustrated below:

> a) There was disquiet at Highland Regional Council yesterday that any rejoicing was extremely premature. (K5D 6043)
>
> b) There was much national rejoicing at the jubilee to celebrate Queen Elizabeth II's reign since 1952… (A66 131)
>
> c) …while the Indians stood amazed at the rejoicing and the ecstasy of the Castilians… (CJD 829)
>
> d) …paramilitaries and have decided to marry each other is cause for rejoicing not condemnation. (HJ3 7701)

The 63 verbal forms of *rejoice* were distributed among eight complement types, including the zero complement. The distribution of complements is given in table 15 below:

Complement type	*rejoice*	*rejoiced*	*rejoices*	*rejoicing*	**Total**	%	NF/million
at+-ing.	-	1	-	-	**1**	1,6	0.1
in+-ing.	-	1	-	-	**1**	1,6	0.1
to-inf.	-	1	-	-	**1**	1,6	0.1
that-clause	1	4	-	-	**5**	7,9	0.3
Sentential total	**1**	**7**	-	-	**8**	**12,7**	**0.5**
at+NP	1	-	-	1	**2**	3,2	0.1
in+NP	8	13	1	6	**28**	44,4	1.6
for+NP	-	-	-	1	**1**	1,6	0.1
Non-sentential total	**9**	**13**	**1**	**8**	**31**	**49,2**	**1.8**
zero	15	6	1	2	**24**	38,1	1.4
Total	**25**	**26**	**2**	**10**	**63**	**~100**	**3.7**

Table 15: complement patterns of the verb *rejoice* in the BNC: World Affairs
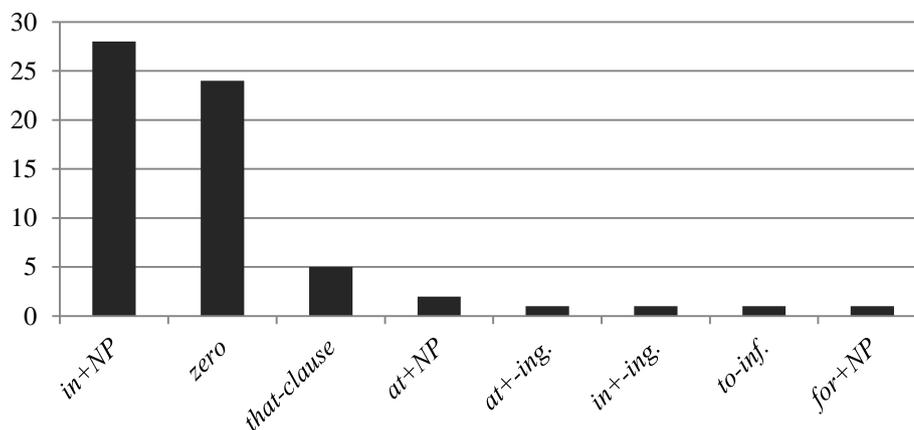

Figure 5: BNC World affairs complements in order of frequency.

5.5.2.1 Sentential complements

With only eight sentential complements found in the data, *rejoice* seems to choose a sentential complement rather rarely, at least in this sub-corpus. This of course presents an interesting point of investigation, to see whether the data reveals a correlation between form and meaning, as was suggested by Bolinger's principle. Since there were only three occurrences of patterns *at+-ing.*, *in+-ing.* and *to*-infinitive, they are illustrated below, respectively:

(1)　　Whilst Bunyan might have <u>rejoiced</u> at being used to belabour the inanities and vanities of the Church… (CFF 1473)

(2)　　Dubbed by The Times a 'chemical Croesus', he <u>rejoiced</u> in using his wealth for philanthropic ends. (GTF 754)

(3) …that could so easily engulf large tracts of Europe which we recently <u>rejoiced</u> to set free. (HHX 11338)

As Bolinger (1968, 123) states, the *-ing*. form is used when the action is not hypothetical, but occurs in reality. If we consider the semantics of examples (1) and (2), it is clear that the meaning of those sentences is not quite clear especially in the case of the first example. The uncertainty arises from the word 'might', which is an expression of possibility or insecurity. However, if we consider the mere structure of the pattern as in 'Whilst Bunyan rejoiced at being used to belabour the inanities…', it is no longer hypothetical, but refers to actual behaviour. Example (2) is more straightforward, since it cannot be interpreted hypothetically. In case of sentence (3), the subject is semantically [+HUMAN], while the semantic role of PRO is agent, since PRO is the performer of the action.

With only five *that*-clauses found in the data, they are all illustrated below:

(4) a) …his splendid drawings of the birds of other countries, will <u>rejoice</u> that those of our colony (many of which are exceedingly beautiful… (HRB 1109)

b) Primitive Methodists <u>rejoiced</u> that 'we are of the people, and know their needs… (AE6 403)

c) The author <u>rejoiced</u> that 'the improvement in public taste… (AE6 637)

d) Danzigers might have <u>rejoiced</u> that as Poland's industrial wealth increased, their city would have… (BN2 848)

e) …truculent misgovernments under which they have groaned' and <u>rejoiced</u> that 'In fusing together the two great divisions of the Anglo-Saxon… (AE6 1509)

Regarding the higher and lower subjects in these sentences, they are not co-referential in any of the cases above, which might explain the choice of a *that*-clause construction instead of an infinitival one. Also, as the text type in this sub-corpus is informative and thus high in formality, the text is often compressed since its length is usually regulated. Therefore, we could suggest that had the higher and lower subjects in these sentences been co-referential, the infinitival would have been the more likely option over a *that*-clause.

5.5.2.2 Non-sentential complements

Compared with the eight sentential complements found in the data, non-sentential complements were far more common with 31 tokens in total. The 31 non-sentential tokens were distributed among three

complement types, *at*+NP, *in*+NP and *for*+NP, of which *in*+NP was the most common with 28 tokens.

There were only two examples of the complement type *at*+NP and one of *for*+NP, respectively

illustrated below:

> (5) a)…and Unionists could not fail to <u>rejoice</u> at the disarray on the left, but the different rails might… (EW1 786)
>
> b) He poured out his heart to me. Instead of <u>rejoicing</u> at his release and the prospect of going home, in his… (AMC 1493)
>
> (6) …'Marxist' correctly in Russian, it seems doubtful whether <u>rejoicing</u> for the Paris Commune would be very well informed or sincere. (A64 408)

If we first take a look at the *at*+NP pattern in (5a-b), we notice that the NPs are inanimate in both

cases. However, in (5a) the NP is an abstract one, whereas in (5b) it is more concrete, yet inanimate.

Thus, the NPs in these *at*+NP constructions are [-HUMAN]. This is the case also with the *for*+NP

pattern found in the data, as the NP *the Paris Commune* is inanimate. In addition, we could suggest

that a prospective alternative for this pattern could have been *on behalf of*, but as the text type in this

sub-corpus prefers compressed information, the *for*+NP pattern is the more linguistically ecological

option.

The complement pattern *in*+NP accounted for 44,4% of the data, being the most frequent

pattern with 28 tokens.

> (7) a) And so, despite the undeniably galling aspect of being asked to <u>rejoice</u> in so meagre a victory after decades of hammering… (AJM 1158)
>
> b) …that everybody who is born a citizen of one's country should <u>rejoice</u> in the birthright of being a citizen of that country. (HHW 224)
>
> c) What little remained of it had never <u>rejoiced</u> in the calm self-assurance of the French, who had equated their… (A64 125)
>
> d) …the British would be likely to emerge from the war <u>rejoicing</u> in a warm nostalgic glow as the gallant kid brothers… (G2J 193)
>
> e) But it also signals the end of an ancient rite <u>rejoicing</u> in human warmth and in the sun's return. (HH3 8532)

As we can see from the examples chosen from the BNC data, the NPs in the complement pattern

in+NP represent inanimate ideas or abstractions, such as *a warm nostalgic glow* in (7d). Further, it

was found that 92,8% (26/28) of the tokens belonging to this complement type were semantically [-

HUMAN], leaving us with only two tokens with [+HUMAN], animate NPs:

> f) The best of them are brilliant, one <u>rejoices</u> in the great Keith Flett, and there are…
> (CAH 436)

> g) youth strong in arms of good customs; and the people <u>rejoiced</u> in him, for he
> bestirred himself to protect the land from… (ASW 481)

This finding roughly correlates with the analysis of this pattern in the BNC sub-section Imaginative

prose, where it was found that in 95,4% of the cases the verb *rejoice* chooses an inanimate NP.

Zero complements were rather common also in this sub-corpus with a normalized frequency

of 1.4 pmw. The number of tokens was 24, bringing their percentage up to 38,1. Again, the examples

below represent the two uses of zero complements, as they are either situated at the end of the

sentence or in the middle of a higher and a lower clause (8a-b), or followed by an adjunct (8c):

> (8)   a) In particular all local factories and the military were ordered to <u>rejoice</u>. (A64 402)

> b) Westerners, even those who had flattered him, <u>rejoiced</u>, but the rulers of Third
> World or Communist states mourned him… (CCK 582)

> c) The former, thinking only of European peace, <u>rejoices</u> when Russia and Britain and
> their differences by the partition of Persia… (CE7 145)

5.5.2.3 Sense and structure

The connection between sense and form in World affairs is presented in table 16 below.

Simplified Sense	Number of Tokens	Patterns
I To gladden a person or his spirits	-	-
II To make oneself glad [refl.]	-	-
III Be delighted	28	*in*+NP
	2	*at*+NP
	24	zero
	1	*to*-inf.
	5	*that*-clause
	1	*for*+NP
	1	*in*+-*ing.*
	1	*at*+-*ing.*
	Total:63 (100%)	
IV Be named	-	

Table 16: Meanings and patterns in the BNC: World affairs

As we can see from table 16 above, all tokens in the BNC sub-section of World affairs represented sense III: *Be delighted.* However, there was one case that is somewhat open to multiple interpretations, as its complement is an *in*+NP *in the ambiguity*, but the complement of the noun *ambiguity* is *of being called 'Chris'*, which would semantically fall into the sense category IV. However, the example below is grouped with sense III: *Be delighted*, as its actual complement does not yield a meaning of *Be named*:

(a) I <u>rejoice</u> in the ambiguity of being called 'Chris'. (HH3 8856)

5.5.2.4 Review of the data

This section has examined the data from the BNC sub-corpus World affairs, which comparatively is often more formal and informative as a text type. The normalised frequency of the verb was a low 3.7 pmw, suggesting that it is either not a common verb in formal contexts, or not generally used in Present day English. A simple search conducted on this sub-corpus yielded 63 tokens, which were distributed among eight patterns. The most common complement pattern in the data was again *in*+NP with 28 tokens, followed by the zero complement, *that*-clause, *at*+NP, *at*+*-ing*., *in*+*-ing*., *to*-infinitive and *for*+NP. The difference between the frequency of sentential and non-sentential complements was significant, as the normalized frequency of sententials was 0.5 pmw, while non-sententials reached a normalized frequency of 1.8 pmw. Except for the pattern *for*+NP, all of the complement patterns in the data were discussed by the dictionaries and grammars that were studied.

5.5.3 Belief and thought

The BNC sub-corpus Belief and thought consists of 3,0 million words. The simple search that was conducted retrieved 85 tokens, of which 14 were nominal, thus bringing the total number of relevant tokens down to 71. The discarded tokens represented cases such as the following:

a) The rejoicing was shared particularly by WACC's members and colleagues in Central America… (CJM 287)

b) …they heard the words of the law" and made "great rejoicing". (EFT 87)

c) 10 Sacrilege The rejoicing is short-lived. (EFT 1719)

d) That was why it began with rejoicing, and one can regret that it did not become known by… (CRK 598)

The 71 verbal cases and their complements are distributed in table 17:

Complement type	*rejoice*	*rejoiced*	*rejoices*	*rejoicing*	**Total**	%	NF/million
in+-ing.	2	-	-	-	**2**	2,8	0.7
to-inf.	1	3	1	-	**5**	7,0	1.6
that-clause	7	1	-	1	**9**	12,7	2.9
Sentential total	**10**	**4**	**1**	**1**	**16**	**22,5**	**5.3**
NP	-	1	-	-	**1**	1,4	0.3
at+NP	3	-	3	-	**6**	8,5	1.9
in+NP	8	6	7	-	**21**	26,9	6.9
over+NP	2	-	1	-	**3**	4,2	0.9
about+NP	1	-	-	-	**1**	1,4	0.3
Non-sentential total	**14**	**7**	**11**	**-**	**32**	**45,1**	**10.7**
zero	13	4	5	1	**23**	32,4	7.7
Total	**37**	**15**	**17**	**2**	**71**	**~100**	**23.4**

Table 17: complement patterns of the verb *rejoice* in the BNC: Belief and thought
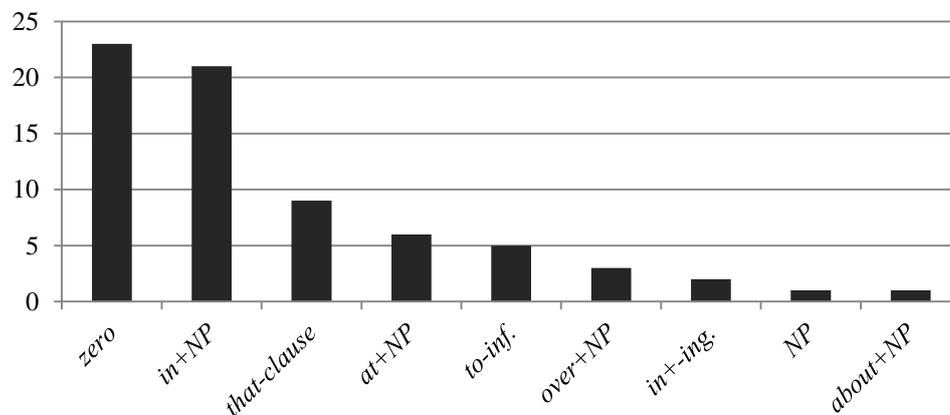

Figure 6: BNC Belief and thought complements in order of frequency.

5.5.3.1 Sentential complements

Sentential complements attributed 16 tokens or 22,5% of the data, and the tokens were distributed among three patterns: *in+-ing*., *to*-infinitive and *that*-clause. Being a rather rare pattern in both the CLMET and the BNC, *in+-ing*. presents an interesting point of investigation. There were two tokens found to represent this pattern:

(1)   a) Yes its Orange Walk season, when we are invited to <u>rejoice</u> in celebrating the victory of King William of Orange… (B1J 930)

b) …should the same multitude who invoked blessings on the son of David <u>rejoice</u> in seeing him mortified and humiliated by the hated Roman oppressors? (EDY 562)

As Bolinger (1968, 122) and Allerton (1988, 14) suggested, there is sometimes an alternative choice between infinitives and gerunds according to their individual characteristics. In other words, the infinitival is used with hypothetical contexts, while the use of gerunds would suggest that the situation described by the sentence actually occurred. Thus, if we consider the gerundial structures in (1a-b), we could presuppose that the semantics of the sentences imply some reality of the situation described. For example, if we replaced the gerund in example (1b) with an infinitival structure, the differences between the two alternatives is more clear: "*...should the same multitude who invoked blessings on the son of David rejoice to see him mortified and humiliated by the hated Roman oppressors?*". As we can see, the gerundial structure implies actual behaviour, while the infinitival is more hypothetical in meaning.

To-infinitives contributed 7,0% of the sub-corpus data, which means that there were five tokens found, all of them illustrated below:

(2)   a) …the Saviour's blessed wounds are open, and <u>rejoice</u> to heal us; the dear, gracious hands of our Mother… (EF0 1623)

b) The Catholic minds in the Church <u>rejoiced</u> to have one of such influence, and such prayfulness… (A68 2104)

c) Readers of the great Victorian novelists <u>rejoiced</u> to find in the final chapters how summarily justice was meted out… (ACA 434)

d) …felt the signs of decay in his mortal body, he <u>rejoiced</u> to think that his inner man was being renewed every day… (G3A 1667)

e) …says Paul in Romans 5:5, and he <u>rejoices</u> to hear of that 'love in the Spirit'… (G3A 1642)

In the case of *to*-infinitives, it is relevant to discuss the underlying structures of sentences as well as the semantic roles of the predicates. As was stated earlier in this thesis, *rejoice* is a control predicate, thus involving PRO. Therefore, there is an underlying argument PRO also in the corpus examples above. If we consider the theta roles of PRO in these five sentences, we can group them into two categories: actors and experiencers. PRO is an actor in examples (2a-b), since the verbs *heal* and *have* (an influence) assign that role to the understood subject. In examples (2c-e) PRO is an experiencer, because the verbs *find*, *think* and *hear* assign that role to the understood subject. In some cases the

categorization is not straightforward as some verbs are rather ambiguous as to what kind of action they require from the subject. Example (2c) is a case in point, since the action of finding can in some cases be either very concrete or mental in others. However, in (2c) the action is mental as its meaning in this case is *notice* or *realise*, thus the action occurs in the mind and can be therefore categorized as an experience. The same applies to (2d-e) as well, as the act of thinking and hearing are mental or linked to the senses, therefore being a rather abstract experience of something that takes place in the mind.

There were altogether nine *that*-clauses in the data, contributing 12,7% of the entire sub-corpus data. All *that*-clause complements represented cases where the often optional *that* complementiser was present, thus, there were no zero *that*-clauses. Three tokens of this complement pattern are presented below:

(3)   a) 'We <u>rejoice</u> that our brother has passed through the valley and is in… (ADE 358)

b) But <u>rejoice</u> that you participate in the sufferings of Christ… (ARG 1748)

c) It must recognize and <u>rejoice</u> that many of its clergy and thousands of its members are Christians… (C8L 975)

In (3c) we have a case of coordination, as the complementiser applies for both verbs *rejoice* and *recognize*. Considering co-referentiality in the higher and lower subjects in these examples, they are not co-referential in any of the cases. However, for example (3b) the *to*-infinitival structure is also possible: *But rejoice to participate in the sufferings of Christ*. Therefore, it can be seen as falling towards the boundary of co-referentiality.

5.5.3.2 Non-sentential complements

The data yielded 32 non-sentential complements (45,1%) that were distributed among five different patterns, the most common of them being the pattern *in*+NP with 21 tokens (26,9%). This was expected, since that complement pattern has been the most frequent non-sentential pattern also in the BNC sub-corpora Imaginative prose and World affairs. Below there are six tokens of this pattern:

(4)   a) …because I <u>rejoice</u> in thy salvation… (ACG 1771)

b) …hitherto barren of martyrs, the ability to <u>rejoice</u> in its own sufferings'. (ADC 883)

c) Socrates <u>rejoiced</u> **day after day** in the improvement in his own self. (B1F 147)

d) We simple '<u>rejoice</u> in God through our Lord Jesus Christ'. (ARG 1640)

e) …we feel spiritually dry and unreceptive, or when we <u>rejoice</u> in God and receive his refreshment. (ARG 2048)

f) I will be glad and <u>rejoice</u> in you; I will sing praise to your name… (CC8 77)

Example (4c) is an interesting case, since it involves an adverbial insertion relating to time (*day after day*). However, the insertion is in a non-standard place, as it is normally placed towards the end of the sentence. The placing of an adverbial can however be a stylistic choice, and does not have an effect on the interpretation of the complement, at least in this case. As the sub-corpus Belief and thought yields tokens where the NP in the complement refers to 'God' or 'Lord', the interpretation of their semantic characteristics can be somewhat ambiguous. They can be interpreted as vague and fictional abstractions and therefore [-HUMAN], but their categorization is ignored here. Regarding the semantics, it seems overall that sentences (4a-f) adhere to Wesche's (1986, 385) analysis of the pattern *in*+NP referring to an area or space and thus evoking a sense of inclusion or being involved in the situation. However, the NPs following *in* are rather abstract, thus complicating the interpretation.

NP complement accounted for only one token in the data:

(5)   The announcement that no less than three mission-territories are to be entrusted to native African bishops has <u>rejoiced</u> mission-minded Catholics all over the world. (A7K 1547)

Here the complement in (5) is semantically animate, as it refers to a group of people.

The data yielded six tokens for the pattern *at*+NP, making it the second most common non-sentential complement pattern.

(6)   a) …it does not <u>rejoice</u> at wrong, but rejoices in the right. (CGE 2262)

b) 'Love does not <u>rejoice</u> at wrong, but rejoices in the right'. (CGE 2297)

c) …work that has been completed on the church building and we <u>rejoice</u> at the skills and abilities that have made it possible. (GX0 28)

d) It is God who <u>rejoices</u> at the repentance of a sinner, just as the father rejoices… (ARG 1696)

e) …just as the father <u>rejoices</u> at the return of the prodigal son. (ARG 1696)

f) …with an epic clarity and beauty, and yet he <u>rejoices</u> at the hero's annihilation. (H0N 1393)

As we can see, the NPs in these examples are all inanimate, as they do not refer to [+HUMAN] entities. Also, there were no occurrences of this pattern with the verb forms *rejoiced* and *rejoicing*.

The complement patter *over*+NP accounted for only three tokens in the data, covering only 4,2% of the complements in total:

(7)   a) There is in the end very little to <u>rejoice</u> over in this chapter. (ACG 1159)

         b) …so will God <u>rejoice</u> over you. (ARG 238)

         c) As bridegroom <u>rejoices</u> over his bride, so will God… (ARG 237)

Considering the semantic properties of the NPs in these complements, we can see that (7a) is an example of an inanimate NP, while (7b-c) represent cases where the NP is animate, thus [+HUMAN].

There was only one occurrence of the pattern *about*+NP in the data:

(8)   Indeed, it is something to <u>rejoice</u> about, and I'm now beginning to do that. (B19 2061)

In example (8) the NP *something* is semantically [-HUMAN].

Zero complements accounted for 23 tokens:

(9)   a) So we can mourn with those who mourn as well as <u>rejoice</u> with those who rejoice. (ARG 1628)

         b) The whole country <u>rejoiced</u> and again crowds flocked to the coastline, but now at night… (B0G 332)

         c) …which foretells the coming of the Messiah: <u>Rejoice</u> heart and soul, daughter of Zion! (EDY 530)

         d) He is the one lovable who is always the same, <u>rejoicing</u> without end, in infinite happiness. (ARG 905)

In example (9c) the adjunct *heart and soul* is an idiom, expressing the manner of the action denoted by the verb. Also, compared with the other BNC sub-corpora discussed in this paper, the amount of zero complements has been systematically rather high, suggesting that *rejoice* is often used either with an adjunct or with no complement fairly frequently.

5.5.3.3 Sense and structure

The connection between form and meaning in *Belief and thought* is shown in table 18 below.

Simplified Sense	Number of Tokens	Patterns
I To gladden a person or his spirits	1	NP
	Total: 1 (1,4%)	
II To make oneself glad [refl.]	-	-
III Be delighted	20	*in*+NP
	6	*at*+NP
	23	zero
	5	*to*-inf.
	9	*that*-clause
	3	*over*+NP
	2	*in*+*-ing.*
	1	*about*+NP
	Total:69 (97,2%)	
IV Be named	1	*in*+NP
	Total:1 (1,4%)	

Table 18: Meanings and patterns in the BNC: Belief and thought

Sense I: *To gladden a person or his spirits*. There was only one token representing this sense with a

complement pattern NP:

> (1)   …three mission-territories are to be entrusted to native African bishops has <u>rejoiced</u> mission-minded Catholics all over the world. (A7K 1547)

Sense II: *To make oneself glad*. The data yielded no occurrences of this meaning.

Sense III: *Be delighted*. As expected, sense III was to a considerably large extent the most common

sense in the data with 97,2% of the tokens belonging to this group.

> (2)   a) …Amen Eternal God, we <u>rejoice</u> in your promise that as our day is, so shall our… (GX0 165)
>
> b) At the time all the family <u>rejoiced</u> with him. (A68 338)
>
> c) But <u>rejoice</u> that you participate in the sufferings of Christ… (ARG 1748)

Sense IV: *Be named*. There was one token of this sense in the data, presented below:

> (3)   …battled their way into the northern uplands (one of their leaders <u>rejoiced</u> in the name of Erik Bloodaxe) must have been… (BN6 1471)

5.5.3.4 Review of the data

This section has discussed the data drawn from BNC sub-corpus Belief and thought. The normalised frequency of the verb was 23.4 pmw, which is 532,4% higher than the NF of 3.7 pmw in World affairs. As both sub-corpora present the English of today, it can only be presumed that the cause of such difference in frequency is due to textual issues. In other words, *rejoice* is overwhelmingly more common in religious contexts than in informative texts. Altogether 71 tokens were analysed and distinguished on the basis of complementation. The tokens accounted for nine different complement patterns, the most frequent of them being the zero complement with 23 tokens. It was followed by *in*+NP, *that*-clause, *at*+NP, *to*-infinitive, *over*+NP, NP, *in*+-*ing*. and *about*+NP, respectively. The frequency of non-sentential complements was 10.7 pmw, while the frequency of sententials was 5.3 pmw. Thus, non-sentential complements continued to overwhelmingly dominate the complement choice of *rejoice*. The data revealed one complement pattern which did not occur in any of the previously analysed data or in the dictionaries and grammars: *about*+NP. A case of coordination was also found in the data. It is also worth mentioning that the pattern NP was very rare in Present day English, as it did not occur in Imaginative prose or World affairs, and occurred only once in Belief and thought. Thus, it seems that it has become a very marginal complement pattern for *rejoice* in Present day English. Semantically, the tokens took senses I, III and IV, however, senses I and IV were again very marginal as sense III accounted for 97,2% of the tokens. Only one token represented sense I with the pattern NP, while sense IV was represented by only one token with the pattern *in*+NP.

6 Summary of findings and further comments

In the beginning of the 18th century *rejoice* was a rather common verb, as in the first part of the CLMETEV its frequency is 45.6 pmw. Furthermore, as we enter the years 1780-1850 the verb reaches its height of popularity with a frequency of 48.9 pmw. From 1850 onwards, the instances drop dramatically to 27.4 pmw in the CLMETEV3, and in Present day English its frequency is only 4.7 pmw (Imaginative prose)/3.7 pmw (World affairs)/23.4 pmw (Belief and thought) depending on the text type. Judging by the BNC data, *rejoice* is nowadays used most extensively in religious texts, but it occurs in informative and fictional texts too every once in a while. This suggests that the use of *rejoice* has changed over time, as it has fallen from common use to occur nowadays most distinctively in religious contexts.

Altogether 20 different complement patterns were found in the data, including the zero complement. The number of occurrences in each sub-corpus is presented in table 19 below.

	CLMETEV1	CLMET2	CLMETEV3	Imaginative prose	World affairs	Belief & thought
at+*-ing*.	2	3	1	1	1	
in+*-ing*.		1	3	2	1	2
in+*wh*-clause		1				
at+*wh*-clause		1				
in+poss.+-*ing*.		4				
at+poss.+-*ing*.		1				
to-inf.	26	28	22	4	1	5
NP+*to*-inf.	2	2				
that-clause	8	21	12	7	5	9
zero *that*-clause	1					
NP	2	4	12			1
at+NP	28	23	9	7	2	6
in+NP	35	50	61	22	28	21
within+NP	1					
on+NP	1					
over+NP	1		8	1		3
for+NP	2	1	1	1	1	
about+NP						1
zero	28	42	38	33	24	23
Total:	**137**	**182**	**167**	**78**	**63**	**71**

Table 19: Complement patterns in the CLMET and the BNC data

As we can see, the most frequent patterns in the data are *in*+NP, *to*-infinitive, *at*+NP, *that*-clause and NP. The second part of the CLMET yielded the highest number of patterns, as only five patterns did not occur in it, four non-sentential and one sentential. As regards the BNC, all three domains lack the patterns *in*+*wh*-clause, *at*+*wh*-clause, *in*+poss.+*-ing*., *at*+poss.+*-ing*, zero *that*-clause, NP, *within*+NP and *on*+NP. Furthermore, the pattern *over*+NP did not occur in World affairs, while Belief & thought lacks *at*+*-ing*. and *for*+NP in addition to the patterns already mentioned.

Regarding the progress of *to*-infinitive and *that*-clause constructions, we can see from the above table that their occurrences yield for no dramatic variation. Both constructions are common between the years 1710-1920, after which they become less used in the modern English period, however, there still are a few occurrences of both constructions. This finding seems to contradict with the Great Complement Shift, according to which *to*-infinitives were to replace *that*-clauses in the long run. As we can see from table 19, that has not happened at least with the complements of *rejoice*, since the use of both structures develops quite similarly, and the *to*-infinitive does not dominate the *that*-clause as we enter the period of modern English. Also, according to the Great Complement Shift, some of the *to*-infinitives were expected to be replaced with gerunds, but based on the very low frequency of gerundial constructions throughout the data, this shift has clearly not taken place here.

Violations of Allerton's (1988) theory were also found in the data, as there were cases where the *to*-infinitive was not forward-looking and hypothetical, but instead referred to the past time and described situations that could be interpreted real, not hypothetical. The data also revealed few cases where the *Horror aequi* principle was violated, but as the violation of this principle leads to decreased fluency, violations were marginal. The Complexity principle was also found in the data, as for example lengthy insertions affected the choice of complement or the structure of the sentence. Wesche's (1968) findings of prepositional NP complements were also extensively used in the data analysis, focusing especially on patterns *in*+NP, *at*+NP and *on*+NP. The corpus data supported Wesche's analysis, whilst her analysis was extended by the proposal of the evoked senses of inclusion or exclusion depending on the preposition.

The following figure represents the chronological progress of sentential, non-sentential and zero complements.
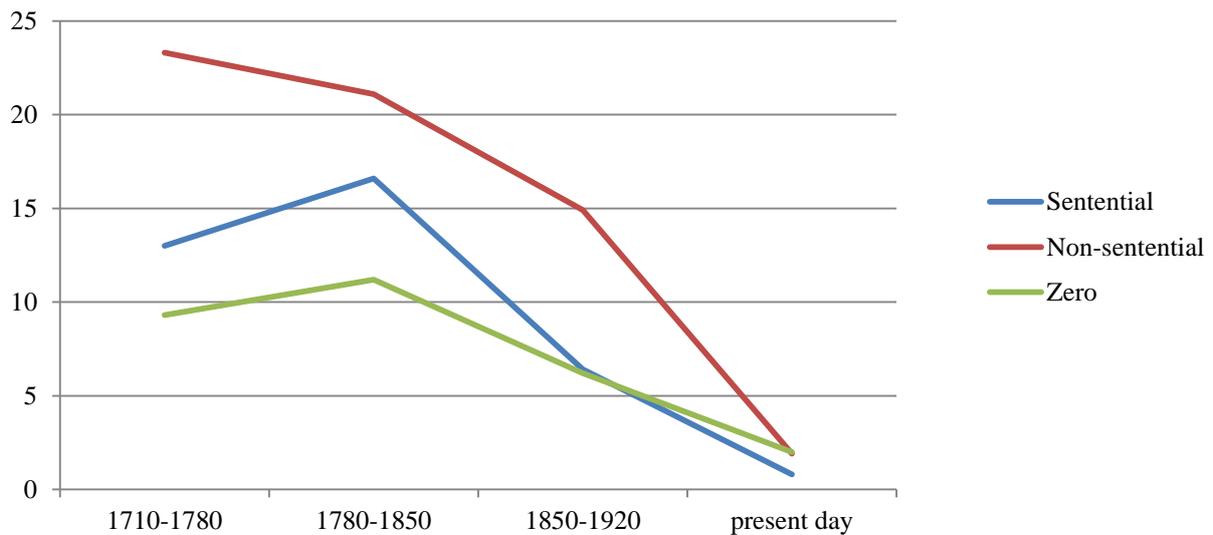
Figure 7: Complement types and their development from the 18th century to the present day

The vertical axis in figure 7 represents the normalized frequency, while the four time periods from 1710 to the present day are in the horizontal axis. As we can observe from the above figure, non-sentential complements have been at the height of their popularity during 1710-1780. Since then they have steadily decreased, and are quite rare as we enter the period of Modern English. Sentential complements increase in popularity between the first and second parts of the CLMET, and they reach a peak in the time period of 1780-1850. After that they keep decreasing steadily, and are presently very uncommon. The progress of the zero complement follows the same development as sentential complements, first rising in popularity and reaching the period of highest frequency in the time period of 1780-1850, then decreasing as we come to present day English. Also, what needs to be kept in mind with the descending figures is the fact that they are affected by the frequency of the verb itself. In other words, the frequency of different complement types is directly proportional with the decreasing chronological popularity of the verb *rejoice*.

Next we turn to consider the chronological progress of the main complement patterns in the CLMET and Imaginative prose. The development of six of the most popular complement patterns is represented in figure 8 below.
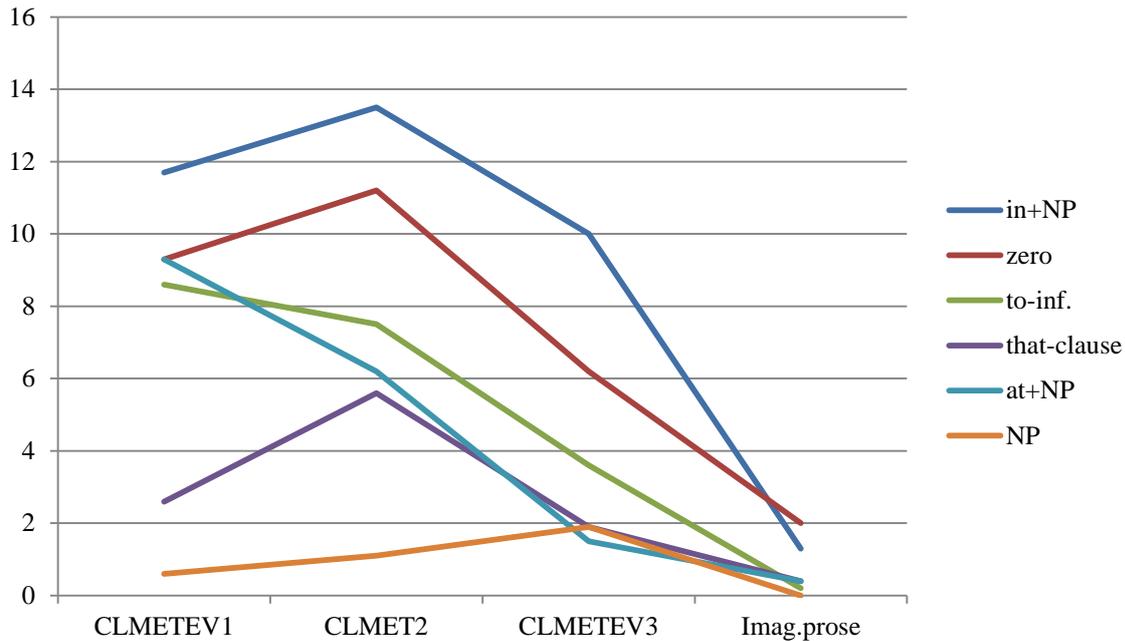
Figure 8: Progression of the main complement types in the CLMET and Imaginative prose

Again, the vertical axis shows the normalized frequency of the patterns, while the four sub-corpora under examination are given in the horizontal axis. The most frequent pattern throughout the data is *in*+NP, however, it drops just below the zero complement in Modern day English. The pattern reaches its peak in the second part of the CLMET, after which it declines dramatically. The same applies for the zero complement as well, even though it is slightly more used in Present day English than its rival *in*+NP. The third most frequent pattern is *to*-infinitive, which is at its height in popularity already in early 18th century. After that it declines and is not a common pattern anymore in Modern English. The development of *at*+NP resembles that of the *to*-infinitive, as it is the most used in the first part of the CLMET, then declining throughout time. *That*-clauses are not a common pattern in the first part of the CLMET, but it rapidly increases in use as we enter the second part of the CLMET. After that it steadily decreases towards Present day English. NP is not a very common complement for *rejoice*, but it rises in popularity in the third part of the CLMET and the declines like the other five patterns. Overall, the frequencies of the complement patterns again follow the frequency of the verb itself over time.

Now we will turn to the comparison between BNC domains of World affairs and Belief & thought, thus, differences in complementation are presumed to spark from purely textual or stylistic differences between them. The normalized frequencies of the patterns are presented in figure 9 below.
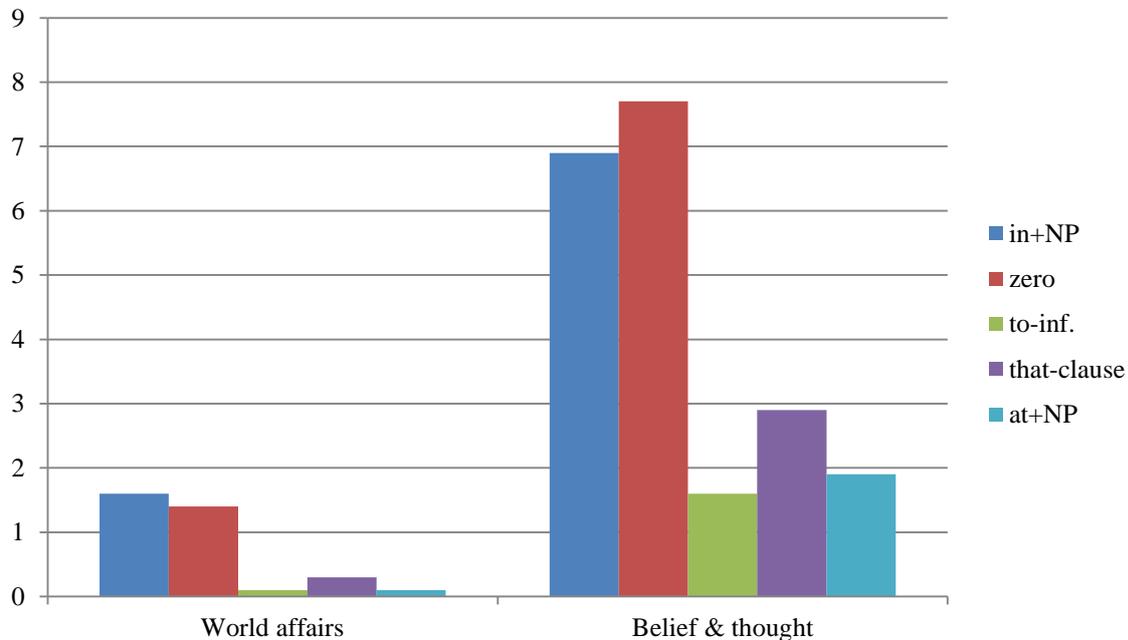

Figure 9: The NFs of the main complements in Imaginative prose and Belief & thought

As we can see when observing the distribution of the complements, *in*+NP was the most frequent pattern in World affairs, while the zero complement is slightly more common in Belief & thought. However, the difference between the frequencies of the patterns is marginal in both domains. *That*-clauses are the third most common group of complements in both text types, followed by *at*+NP and *to*-infinitive. Still, the most notable matter in the diagrams is the difference in the commonness of the verb *rejoice*. With a normalized frequency of 3.7 pmw, it does not seem to be a very prominent verb in informative texts that are high in formality. However, in religious contexts it is a very frequently occurring verb, as its normalized frequency reaches 23.4 pmw. As already mentioned, this suggests that *rejoice* is nowadays used most extensively in religious texts, however, a research on other BNC sub-corpora would have to be carried out in order to validate this finding.

Sense-pattern relations were quite straightforward in the data, as sense I took the patterns NP and NP+*to*-infinitive, sense II took only NP, sense IV took *in*+NP, and sense III assigned all of the

patterns in the data except for NP and NP+*to*-infinitive. Also, sense III, *be delighted*, was

overwhelmingly popular, as 95,7% of the tokens belong to that group. Sense I is the second most

common meaning with 3,6% of the tokens, while senses II and IV are left with the marginal 0,14%

and 0,7%, respectively. The patterns, total number of tokens and their percentage according to each

sense is given in table 20 below.

	Sense I: To gladden a person or his spirits	**Sense II:** To make oneself glad [refl.]	**Sense III:** Be delighted	**Sense IV:** Be named
Pattern	NP NP+*to*-inf.	NP	*at*+-*ing*. *in*+-*ing*. *in*+*wh*-clause *at*+*wh*-clause *at*+poss.+-*ing*. *in*+poss+-*ing*. *to*-inf. *that*-clause zero *that*-clause *at*+NP *in*+NP *within*+NP *on*+NP *over*+NP *for*+NP *about*+NP zero	*in*+NP
Total	22	1	670	5
Percentage	3,2%	0,14%	95,9%	0,7%

Table 20: Senses and patterns in the data

As we can see, sense-pattern relations were somewhat straightforward, as the pattern NP+*to*-inf. was

found only with sense I, and an NP complement occurred only with senses I and II depending on

whether the NP was reflexive or not. Also, patterns that occur with sense III did not go together with

any other senses, excluding the pattern *in*+NP, which was the only pattern occurring with sense IV.

7 Conclusions

In this thesis I have analysed the complementation of the verb *rejoice* from early 18th century to present day English. The corpus data was drawn from all three parts of the CLMET (both original and extended version) and from three domains of the BNC: Imaginative prose, World affairs and Belief and thought. Two different kinds of comparisons were made based on the data: a chronological comparison between the historical data from the CLMET and Imaginative prose, and a comparison between the text types of formal informative texts and religious texts, based on the present day English data drawn from World affairs and Belief and thought. Altogether 698 tokens were analysed and categorised, and grouped according to their meanings. The aims of this thesis were compiled in a few research questions, reiterated below:

> I) What kinds of complements does the verb *rejoice* take? Are there any complement patterns not established by the dictionaries and grammars used?
> II) How common is each complement type?
> III) When comparing data from different sub-corpora, what are the main changes in complementation from the 18th Century to the present day?
> IV) What kinds of factors influence the choice of complement? Are there any violations of the principles that affect complementation?

According to the data, *rejoice* takes both sentential and non-sentential complements, but as we move towards present day English it tends to prefer non-sentential complements over sentential ones. The most frequent complement for the verb in question was *in*+NP, followed by the zero complement, *to*-infinitive, *that*-clause, *at*+NP and NP. However, the success of the pattern *in*+NP was not steady; in the CLMET it reaches its peak in the second part of the corpus with a normalized frequency of 13.5 pmw. After that its popularity decreases to 1.3 pmw in Imaginative prose, however, it is still quite common in Belief & thought with 6.9 pmw. This however, has also to do with the fact that the verb itself starts to fall out of use as we enter Present day English. It was also noticed that nowadays *rejoice* seems to be distinctively used in religious contexts, suggesting a change in the use of the verb. In chronological comparison, the normalized frequency of *rejoice* is at its highest in the first two parts of the CLMET with 45.6 and 48.9 pmw, and at its lowest in the BNC as it has dropped down to 4.7 pmw. According to the comparison between the genres of World affairs and Belief & thought, the

verb is very common in religious contexts with 23.4 pmw, but rare in formal or informative texts as its frequency reaches only 3.7 pmw.

The data revealed altogether eight patterns not realised by the dictionaries and grammars: *in*+*wh*-clause, zero *that*-clause, *within*+NP, *on*+NP, *for*+NP, *at*+*wh*-clause, *about*+NP and NP+*to*-infinitive. Also, one pattern listed by the *Oxford English Dictionary* did not come up in the data: NP+*that*-clause.

Regarding meanings, *rejoice* takes altogether four different senses: I) *To gladden a person or his spirits*, II) *To make oneself glad* [refl.], III) *Be delighted*, and IV) *Be named*. According to the data, the most prominent sense was *Be delighted*, as over 92,2% of the data belonged to this category in every sub-corpora. Except for the patterns NP and NP+*to*-infinitive, all patterns found in the data were connected with sense III. Sense I was the second most common with 22 instances. Also, the patterns that went with sense I were NP and NP+*to*-infinitive. Senses II and IV were rare in the data, and their occurrences had to be waited until the CLMETEV3. There was only one instance of sense II in the CLMETEV3 with the pattern NP, while sense IV yielded five tokens, four of them in the BNC. The pattern to accompany sense IV was *in*+NP in all five cases.

Regarding the theories of complementation, the data presented counter examples of the Great Complement Shift, as it found that *to*-infinitives did not replace *that*-clauses, instead, their development from the beginning of the 18th century was roughly similar. Also, gerunds did not begin to replace *to*-infinitives, as they were very marginal throughout the data, while *to*-infinitives remained very frequent. Allerton's analysis (1988) was also contradicted by the data, as there were examples were the *to*-infinitive was not forward-looking and hypothetical, but referred to the past time instead. Also, the situations described by the sentences were in some cases real, not hypothetical. Extractions were also present in the data, especially relative extraction and interrogative extraction were found. Cases involving extraposition, coordination and parenthetical insertions were also found.

Wesche's (1986) analysis of *at*+NP, *in*+NP and *on*+NP patterns was applied to the data, as the tokens seemed to reflect the idea of either topological or two- or three-dimensional spaces. As Wesche suggested, there was a clear difference in the semantics of these patterns, as the preposition *at* seemed to evoke a sense of being at the brink of the situation, while *in* yielded a sense of inclusion in

the area of the event or situation. The data revealed a low number of *on*+NP complements, but regarding those that were found, the preposition seemed to semantically refer to a line or a surface.

Overall, the use of the verb *rejoice* has changed from the 18th century to the present day, as it was a common verb throughout the years 1710-1920, then slowly descending to be distinctively used in religious contexts in present day English. However, this finding was supported by the chosen data, thus there is a need for further research on whether corpora of other text types support this.

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