

Tampereen yliopisto Kieli- ja käännöstieteiden laitos Englantilainen filologia

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Tämän sivuainetutkielman tarkoituksena on tarkastella englannin kielen verbiä *die* ja siihen liittyviä prepositiokomplementteja nykyenglannissa. Tutkimuksessa ovat mukana myös verbin taivutetut muodot *dies*, *died* ja *dying*. Perustana analyysissä käytän elektronista korpusta (British National Corpus), joka koostuu 100 miljoonasta sanasta kirjoitettua ja puhuttua kieltä. Korpuksen data sisältää myös kirjallisuuden ja puhutun kielen lajeja laidasta laitaan.

Aloitan tutkimukseni esittelemällä lyhyesti korpuspohjaisen tutkimuksen etuja ja samalla myös luon katsauksen British National Corpukseen. Työni ensimmäinen osa on teoreettispainoitteinen ja siinä tarkastelen tarkemmin *die*-verbiä Oxford English Dictionaryn (*OED*) avulla. Tämän jälkeen selvennän käsitettä komplementaatio ja keskityn myös kriteereihin, joita grammaatikot antavat komplementin ja adjunktin erottamiseksi toisistaan. Tämä ero on tärkeä tehdä jo työn alkuvaiheessa, sillä tutkielmani tarkoituksena on keskittyä ainoastaan niihin prepositioihin, jotka muodostavat *die*-verbin kanssa komplementtirakenteen.

Jo työn teoriaosassa käytän perustana BNC:stä eroteltua 1100 esimerkin satunnaisotosta, josta selviää, että *die*-verbin kanssa prepositiokomplementtirakenteita voivat muodostavaa prepositiot *of, from, with, through, by* ja *for*. Keskityn aluksi lyhyesti kuvailemaan prepositioita yleisellä tasolla, minkä jälkeen siirryn tarkastelemaan edellämainittuja prepositioita semanttisesta näkökulmasta ja listaan niiden prototyyppiset merkitykset. Näitä merkityksiä vertailen myöhemmin korpusdatassa esiintyneisiin merkityksiin ja tutkin samalla niiden eroja ja yhtäläisyyksiä.

Tutkimukseni analyysiosassa keskityn erikseen jokaiseen kuuteen prepositoon BNC:stä tehtyjen lisähakujen avulla. Nämä haut antavat hakutuloksen, jossa mahdollisimman moni esimerkki on analysoitavissa ja tutkimuksen ulkopuolelle kuuluvia tapauksia on mahdollisimman vähän. Pyrin helpottamaan analyysiä jaottelemalla prepositioiden kontekstit viiteen ryhmään, joiden perustana käytän *OED*:ä ja omia johtopäätöksiäni. Ryhmiksi muodostuvat korpusdatan perusteella: (1) sairaudet, (2) haavat/ loukkaantumiset, (3) tunteet/olotilat, (4) nälkä/jano/nääntyminen ja (5) muut. Yleisimmät *die*-verbin kanssa esiintyvät prepositiot ovat selvästi *of* ja *from*, mutta näiden prepositioiden välillä on havaittavissa tendenssejä, joiden mukaan *of* olisi yleisemmin käytössä, kun puhutaan sairauteen kuolemisesta (*die of cancer*). Sitä vastoin *from*-prepositiota käytettäisiin enemmän haavojen ja loukkaantumisten yhteydessä (*die from injuries*). Poikkeuksia löytyi kuitenkin näistäkin ryhmistä.

Havaittavissa on myös, että kaikkia yllämainittua kuutta prepositiota käytetään melko yleisesti kuvaannollisessa merkityksessä, jolloin esimerkit jakautuvat ryhmien 3 ja 5 kesken. Tämä koskee myös harvemmin esiintyviä prepositioita *through*, *by* ja *for*. Monissa tapauksissa kyseisen esimerkkilauseen subjekti saattaa olla eloton tai elollinen, kun kyseessä oli prepositio *of*, *from* tai *through*, kun taas ryhmien 1, 2 ja 4 subjektit ovat kaikki elollisia. Korpusdatasta käy myös ilmi, että *of* on yleisempi kuin *from* puhuttaessa tunteista tai nälästä. Jos taas prepositiota seuraa gerundi myös *through* ja *by* ovat mahdollisia, kun taas prepositioiden *with* ja *for* kanssa –ing-muotoa ei esiinny lainkaan. Myös Günther Raddenin (1985) teoria syysuhteesta sekä välillisestä ja välittömästä syystä näiden prepositioiden kanssa on jossain määrin sovellettavissa *die*-verbiin.

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1. Introduction

The aim of this second subject thesis is to examine the prepositional complements of the verb *die* and its inflected forms, *dies*, *died* and *dying* in present-day English with the help of an electronic corpus. I will start by briefly introducing the concept of corpus-based research and also the British National Corpus (BNC), the data of which will have the main role in this study. The first part of this thesis gives a more theoretical view on the topic. In it I will take a closer look at the verb *die* with the help of the Oxford English Dictionary (*OED*) and compare its views to those of other grammar books. After that I will move on to the concept of complementation, because at this point it is significant to make a distinction between complements and adjuncts, which may in many cases seem deceptively similar. This distinction will help to define what cases can be included in this study and what cases will have to be discarded.

After that I will concentrate on the verb *die* as a prepositional verb and move on to examine prepositions in general. Already in the theory part I will use a random sample from the BNC to be able to define which prepositions need further examination. The purpose of section 6 is to briefly introduce the prototypical senses of the prepositions *of, from, with, through, by* and *for*, which occur in complement constructions with *die* according to the BNC's random sample. This overview will function as a basis for comparison when I move on to examine what kind of prepositional complements the verb *die* takes.

The empirical part of this thesis is again divided according to the prepositions that occur with *die* as complements. In this section 7 I have used additional searches from the BNC to be able to study each combination of *die* + *prepositional complement* individually. I have also divided the example sentences of the data into different meaning groups on the basis of the context in which the preposition occurs. By doing this I will try to detect consistencies in the data and through that create a possibility to draw some conclusions from it, e.g. which preposition appears to be more common in which context. In addition, it was worth examining whether there are any similarities

between the complements, although they are formed with a different preposition. The data provides also exceptional cases which deserve closer examination. By studying the different patterns I aim at clarifying the valency of the verb *die* and supporting the fact that this verb *can* be supplemented also with other prepositions than only *of* and *from*.

2. Corpus-based research and the British National Corpus

Since this thesis concentrates on investigating certain patterns of English grammar, it is nowadays rather self-evident that the most efficient way of studying these patterns in addition to grammar books is to use corpus data. De Haan and van Hout (1986, 79) stated in their article that the union between language and statistics has not been particularly popular, but on the other hand these linguists were also able to see the direction where linguistic research was heading for. Thus, they note in the same article, which dates back to the 1980s, that it is now difficult to imagine that an empirical linguistic research was carried out without statistics. Twenty years after this statement we are able to look at the broader scale and see how e.g. different computer corpora have developed and brought a whole new aspect to linguistic research. The corpora are now much larger, easier to use and therefore also the results of a corpus-based research are much more reliable and can even be used to detect consistencies and changes in a language. In addition to that they also function as a useful tool in language learning of non-native speakers.

Aarts and van den Heuvel (1984, 83) list various different benefits that corpus research can bring. They state for example that it is a very powerful tool that can be used to evoke, deepen and enhance linguistic intuitions. Another important remark is that corpus data makes it possible to test and find proof for linguistic hypotheses. In my thesis I will also make some hypotheses on the basis of the information from different grammar books. To be able to test these hypotheses, I am going to use an electronic corpus. The aim is to find either support for or opposition to the views that are presented by different grammarians.

The electronic corpus that I am going to use in this study is the British National Corpus (BNC). This corpus, which covers British English of the late 20th century, consists of 100 million words and its samples are from both written and spoken British English and they represent a comprehensive selection of different genres. These genres include e.g. extracts from national newspapers, journals and specialist periodicals as well as academic books, popular fiction, letters and memoranda. These represent the written part of the corpus, which covers 90% of the total amount of examples. The spoken part consists of extracts from all kinds of spoken interactions, such as conversations, recordings, meetings, radio shows and phone-ins and they are all from various different contexts. The BNC is a rather large electronic corpus when considering its total amount of tokens (approximately 100 million). Therefore it is suitable for being used alone in this second subject thesis, where the aim is not to look at the complementation patterns from a diachronic point of view.

With the help of the BNC I will examine the prepositional complements of the verb *die* and use the statistics to compare the results from different categories. As de Haan and van Hout (1986, 80) state: "linguistic statistics can be defined as the study of variation and randomness in language". They also note that the study of relationships between elements in a language system can help in making more profound insights about the language structure. In the empirical part of my thesis I will especially concentrate on the variation and the relationship between the different prepositional complements of the verb *die*. Thus, I will try to find some coherence in their occurrence on the basis of my observations.

3. The verb die

In this section I will take a closer look at the verb *die* and its division into different semantic groups. This grouping will also function as a basis for the grouping in the empirical part of this thesis. The main reference that I have used to present the semantic categories of the verb in question is the Oxford English Dictionary (1989), because it gives the most exhaustive listing of the different

prepositional complements that can be supplemented to the verb *die*. In addition I will compare the view in the *OED* to the views that some other grammarians have presented.

According to the Oxford English Dictionary (1989), the verb *die* occurs intransitively in the following senses: "to lose life", "cease to live", "suffer death" and "to expire". It is also stated in the *OED* that this verb is used in several different constructions, such as:

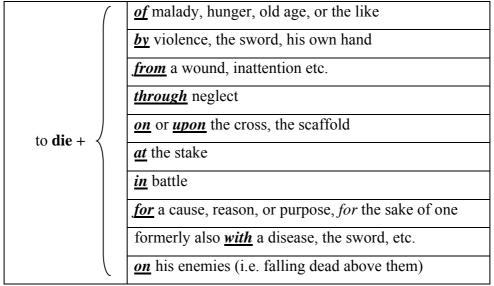


Table 1: The constructions listed in the OED (1989) for the verb die.

Heaton (1965, 5) also mentions the preposition *of* in this context and he notes that this preposition "can be used with certain words to mean *from*". He gives an example: *die of wounds*. Vestergaard (1977, 183) lists the following prepositional constructions that may occur with *die*: "I could have died FOR shame"; "she died FROM natural causes"; "he was ready to die WITH vexation" and "he died OF fever and starvation". As can be interpreted from the examples above, the verb *die* can be used in many different constructions, which all include a prepositional phrase. However, it is noteworthy that not all of these phrases can be treated as complements. Since my thesis will deal with the prepositional complements of the verb *die*, it is important to separate complements from adjuncts and define the cases that will be discarded in this study. I will also return to Vestergaard's first example sentence (see above) later in this paper, since this kind of use of the combination *die* + *for* is very exceptional.

Another important remark has to be made at this point. In addition to the examples of the prepositional constructions of *die* that are listed above, the *OED* (1989) includes the following constructions with the verb *die*: *die away*, *die back*, *die down*, *die off*, *die out* and *die up*. These constructions will be excluded in this study, because they consist of the pattern *die* + *adverb* and they also form constructions that can be categorised under phrasal verbs rather than under prepositional verbs.

4. Complementation

I will now concentrate on the concept of complementation. This section will also include a discussion on the distinction between complements and adjuncts, which will help to define the cases that will be excluded in this study. In this distinction I have used Huddleston's (1988, 52) list of tests but also included some other tests that Somers (1978, 12) mentions in his work.

4.1 Overview of complementation

According to Huddleston (1988, 52), the dependents in a verb phrase may be divided into two separate groups, complements and adjuncts. Collins and Hollo (2000, 251) state that a complement is an element in a clause which usually cannot be omitted and is also "controlled" by the verb. In other words, a complement is "a word (or words) that helps to complete our information" (Chalker, 1990, 440).

Huddleston (1988, 49) uses an example sentence: "Your father washed the car again", where *wash* is the predicator, *the car* is a complement and *again* is an adjunct. An example with the verb *die* would be (the letters and numbers in brackets denote the different genres in the BNC):

Complement Adjunct

(1) He had experience of caring for those *dying* [with AIDS] [at home]. (The sentence abridged from an example in the BNC) (A02)

However, it is not always this straightforward to recognise different complements, especially when the line between complements and adjuncts is sometimes rather obscure. In the data of the verb *die*

in the BNC there are several cases where this vagueness can be noticed. For this reason I will next concentrate on the methods that will help to separate complements from adjuncts.

4.2 Complements vs. adjuncts

Different grammarians use different methods in order to distinguish complements and adjuncts from each other. Huddleston (1988, 52) is of the opinion that there are three criteria which help to make this distinction. First of them is *non-omissibility*, which means that "complements are sometimes obligatory, whereas adjuncts are always omissible". In both of Huddleston's examples "Kim became ill" and "Kim used a drill" the dependents *ill* and *drill* are complements, because they cannot be omitted. This method corresponds to Somers's (1987, 12) *elimination test* (*Eliminierungstest*) since both of the grammarians argue that if the elimination of an element makes the sentence ungrammatical, the element is syntactically obligatory. Huddleston (1988, 52) also points out that the meaning of the verb is not allowed to change with the omission. He gives the example "Kim fell ill" where the meaning of the verb alters if the word *ill* is omitted. However, the criterion of *non-omissibility* has its deficiencies. If complements are only sometimes obligatory, as stated above, how can one make the distinction between a complement and an adjunct if the dependent in the non-omissibility test turns out to be omissible? Huddleston (1988, 52) agrees that in such cases other criteria will have to be used for the definition.

Huddleston's (1988, 52) second criterion is the *verb lexeme classification*. He uses the same example as above to clarify this method and also states that with this method a dependent may be categorised as a complement, although it is omissible:

(2) Your father washed the car again.

Thus, the verb has to represent a particular class in order to take a particular complement. With adjuncts the verb lexeme classification does not hold. This means that the dependent *again* may occur with lots of different verbs, but the dependent *the car* requires a certain kind of verb and is

therefore a complement. This can be illustrated with the following example which is ungrammatical:

- (3) *Your father hoped/disappeared/relied the car. (example from Huddleston)

 Somers (1987, 12) also lists a method which can be used to separate omissible complements from adjuncts. This is called the *extraction method* (*Abstrichmethode*), which means that such elements cannot be left out which would make the sentence ungrammatical or change the meaning of the predicate:
 - (4a) The farmer ploughs his field.
 - (4b) The farmer ploughs. (The meaning of the predicate changes)

The last criterion that Huddleston (1988, 52) offers for the distinction between complements and adjuncts is the *form class*, meaning that "the most central complements are NPs or AdjPs, while the most central adjuncts are AdvPs". However, Huddleston does admit that this criterion does not always hold, e.g. in the temporal noun phrase *this morning*, which can be a complement (*I wasted this morning*) or an adjunct (*I arrived this morning*).

Somers (1987, 14-15) presents two more tests, the *backformation test* (*Zurückführungstest*) and the *substitution test*. The former suggests that "complements are attached to the predicates, whereas adjuncts attach to the sentence". If an element may be reformulated as a relative clause, it is an adjunct and vice versa:

- (5a) He died *in Dresden*. (example from Huddleston)
- (5b) He died, when he was in Dresden.
- (6a) She died of leukaemia. (HF3)
- (6b) *She died, when she was of leukaemia.

In the latter test the verb is substituted with a quasi-synonym, as in the following examples:

- (7a) I have been waiting for my friend for two hours.
- (7b) *I have been expecting for my friend for two hours.

This test also has its weaknesses when dealing with the complement versus adjunct distinction. The quasi-synonym can namely have the same valency pattern as the original verb in the sentence. This

may impede the recognition of complements in some cases. Consider for example the following sentences which are to be found in the BNC and in which both verbs have the same valency pattern:

- (8) [--] we could have died *from hunger* in the war. (AA8)
- (9) They perished *from hunger* in a land rich with milk and honey. (ANU)

This method resembles Huddleston's *verb lexeme classification*, but as examples 8 and 9 show, this test is sometimes inadequate. Hunston and Francis (2000, 83) have been studying this phenomenon, which occurs e.g. with the verbs above. They are of the opinion that "particular patterns will tend to be associated with lexical items that have particular meanings". Thus, in our case the verbs *die* and *perish* would belong to the same meaning group and they also partly share the same valency pattern.

The tests above illustrate how difficult it may be to make the distinction between complements and adjuncts, especially with the borderline cases. In the following section I will examine the verb *die* as a prepositional verb and present another criterion which may help to define whether the dependent is a complement.

5. Die as a prepositional verb

According to Collins and Hollo (2000, 95), "verbs which have a use where they require a particular type of prepositional phrase as their complement are called 'prepositional verbs'" Biber et al. (1999, 413-414) state that there are two major structural patterns for prepositional verbs: 1) NP + verb + preposition + NP and 2) NP + verb + NP + preposition + NP. The verb *die* can only occur with the first pattern, as in:

NP Verb Prep NP (10a) [He][died][from][a shot gun wound]. (K1N)

An example of the second pattern would be:

NP Verb NP Prep NP (10b) [But][McGaughey][bases][his prediction][on][first-hand experience]. (Biber et al.)

Biber et al. (1999, 414) also point out that the verb + preposition pattern "can be considered as a single unit". In these cases the object of the prepositional verb is the noun phrase that follows the preposition. Schibsbye (1970, 293) also illustrates this link between the verb and the preposition by stating that:

"When a prepositional phrase follows a verb, the preposition may be so closely connected with the verb that the object of the preposition is rather the object of verb + preposition [--] "

This connection between the verb and the preposition is important when considering the verb *die* and its prepositional complements. If this link is included in the analysis it is easier to separate the cases with complements from cases that occur with adjuncts. By examining the data from the BNC it can be concluded that the most common prepositions that are used in complement constructions with the verb *die* are *of* and *from*. These prepositions have a clear tie with the verb and the meaning of the prepositional phrase is not directly derivable from the preposition.

The preposition *for*, on the other hand, represents a more complicated case. I am of the opinion that it usually forms adjunct constructions rather than complement constructions. Consider the following examples from the BNC:

- (11) The sacrifice comes in dying for that valued person or thing. (ABV)
- (12) When I was 16 I would have died for a cream cake, [--] (ARJ)

According to Heaton (1965, 3), the most common sense of the preposition *for* is "on behalf of". The *OED*'s (1989, 631) senses for the preposition *for* in combinations with the verb *die* were "*for* a cause, reason, or purpose and "*for* the sake of one". Thus, in examples 11 and 12 the preposition *for* occurs in its prototypical sense. Also the link between the verb and the preposition is less tight as for instance in the sentence:

(13) His father had *died of* pneumonia. (AB5)

In example 13 the preposition *of* does not occur in its usual sense, which is "belonging to", "part of" or "from" (Heaton, 1965, 4).

However, there is at least one example in the BNC which represents an exceptional use of the preposition *for* with *die*:

(14) Feeding all the chicks equally in a poor season might well lead to all of them *dying for lack of adequate nourishment*.

There are altogether 326 examples in the BNC with the combination die + for, but example 14 is one of the rare cases where the preposition for is used in a situation in which one would more commonly use the prepositions of or from. The majority of the combinations die + for occur, however, in the senses that the OED (1989) states. Because of this fact it is also strange that Vestergaard (1977, 183) gives the example I could have died FOR shame. In the BNC there is not a single example of die for shame. There are altogether only 11 sentences in the corpus that represent the pattern die + prep + shame and they all occur with the preposition of. In the empirical part of this thesis I will return to these kinds of cases and analyse them more thoroughly. However, this example with for shows that there can be interesting exceptions in the use of these prepositional complements of the verb die.

6. Prepositions

In this section I will first take a closer look at prepositions in general and after that I will concentrate more thoroughly on the prepositions that form complement constructions with the verb *die*. My aim is to clarify the prototypical senses of these particular prepositions and by doing this also enable the comparison with the senses in which they occur in *die* + *prepositional complement* – constructions.

By using the BNC search I was able to find out which prepositions needed closer examination. I used the lemma search and specified *die* as a verb and the right context as a

preposition allowing two tokens. I chose to allow two tokens instead of one because the verb and the preposition might sometimes have additional elements between them, e.g. adverbials, and in these cases the preposition is not the first token after the verb.

The total amount of examples with this search was 9109 and I chose to analyse 12% of that total. Therefore I used a random sample which included 1100 hits. At this point it is necessary to explain that this search will function only as a so-called "basic search" since it includes all possible constructions that have the pattern *die* + *preposition*, i.e. phrasal verbs and adjuncts in addition to complement constructions. Later on I will use results from additional searches for a closer examination of the prepositional complements. The following table represents the results of the random sample (basic search):

	Amount	0/0
die + of	128	12
die + from	79	7
die + with	3	0,3
die + by	5	0,5
die + through	1	0,1
die + for	1	0,1
Adjuncts	828	75
Phrasal verbs	15	1,4
Invalid cases	40	3,6
TOTAL	1100	100

Table 2: Die + prep. in the BNC; random sample of 1100 hits

As can be seen from the table, the amount of adjunct constructions is the largest. Many of these cases included sentences such as (the underlined part is the adjunct):

- (15) Cather was born in 1873 and *died* in 1947. (A5F)
- (16) [--] they have been told they will *die* in the wilderness -- (ACG)

A few phrasal verbs were also found, e.g.:

- (17) [--] the tortured breathing had *died away* to an ominous silence. (CKD)
- (18) Her hand came down and the fire *died out* of her eyes. (HGV)

There were also several cases that had to be left out. These I have marked as "invalid". This means for instance that preposition starts a new sentence or it is a part of an idiom:

- (19) One day the Star Zoo will *die*. *After* that there will be no life [--] (FSB)
- (20) Maybe she wasn't going to die after all. (F9X)

The rest of the cases showed that there are six prepositions that can form a complement construction with the verb *die*, and these were *of*, *from*, *with*, *by*, *through* and *for*. But why is it that only these prepositions were found in the data? What makes them suitable supplementations of the verb *die*? Radden (1995, 184) presents an interesting table which may help to answer these questions:

Dimension type Case	0 : point	1 : line 2 : surface	2 : area 3 : enclosure
Place	at by with	on over	in
Goal	to for at	on(to)	into
Source	from	of off	out of
Path	past by via	along	through

Table 3: The basic prepositions of space. The prepositions encircled are also used in a causal sense. (Radden, 1995, 184)

Radden (1995, 178) is of the opinion that the spatial senses of particular prepositions may be linked to abstract senses e.g. causality. As the table shows, all the prepositions that occurred in complement constructions with *die* in the BNC are circled. Thus, Radden (1995, 185) suggests that they may all be used to in the senses "because of", "due to", "on account of", "owing to" and "as a result of". This view is extremely interesting since for instance with the verb *die* one usually expects that also the reason for the death is mentioned. In most of the cases this is expressed by a complement. In the following sections I will concentrate on the basic senses of the six prepositions

mentioned above and take a closer look at what other grammarians have said about "causality" in this connection.

6.1 Overview

Prepositions are very frequent words in the English language and as Leech and Svartvik (1994, 352) state most of them consist of one word. According to Börjars and Burridge (2001, 71), prepositions are "the most difficult elements to spot by structural criteria". However, it can be stated that the majority of prepositions express relationships between things and events. Thus, they function as relators in prepositional phrases (Collins and Hollo, 2000, 86). Börjars and Burridge (2001, 71) add that the basic sense of prepositions is *spatial* and this is clarified with an example:

(21) You can throw the ball *over/under/through/near* the wall.

But as Börjars and Burridge (ibid.) also note, some of the prepositions that mark location have been "recruited for a more grammatical functions, taking over the roles of our disappearing inflections". For instance, the preposition *of* once had only the meaning "away from" but today it has various other functions in addition to that. This seems to correspond with Radden's (1995, 184) view of spatial senses having developed into abstract senses.

According to Huddleston (1988, 123-126), clear members of the closed preposition class¹ have the following properties at the language-particular level: *inflection, complementation, modification* and *function*. Thus, prepositions usually do not show inflectional contrasts. They may be supplemented by two different kinds of complements, i.e. NPs as in "He will resign before the end of the year" and TDCs (tensed declarative clauses) as in "He will resign before the vote is taken". By *modification* Huddleston (1988, 125) means that "prepositions allow only a modest amount of modification" and as a last listed property he states that prepositions function as head in a PP structure. However, Huddleston (1988, 126) clarifies that all prepositions, except *than* and *but*,

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¹ Cf. Huddleston (1988, 32): "At a general level the preposition is one type of **adposition**, the other type being the postposition. Prepositions normally precede their complements, while postpositions follow. The adposition may then be defined as a grammatically distinct closed class of words --".

can also occur as head in adjunct phrases. Therefore it is important to be able to separate the prepositional complement phrases that are formed with the verb *die* from the adjunct phrases.

In this thesis I will not go further in my general analysis of prepositions. The aim of the above introduction was only to give an overview of this specific class of words before I will move on to examine some individual prepositions. In the following sections I will study six different prepositions that occur in complement constructions with the verb *die*. These prepositions are *of*, *from*, *with*, *through*, *for* and *by* (cf. table 2). I will examine them also in this same order of commonness that was detected by studying the data from the BNC. The brief analysis of these prepositions will be based on a semantic approach.

6.2 The preposition of

According to Huddleston and Pullum (2002, 658), *of* is "the most highly grammaticised of all prepositions". This means that its original meaning *away/from* has disappeared and it has now a large number of other meanings due to historical development. Chalker (1990, 274) states that the preposition *of* is "one of the commonest words in the English language and sometimes does not seem to have very much meaning". However, this little word does occur in several different senses. In the following table I have listed the basic senses that the preposition *of* has. I have used Chalker's (1990) model here, because her group division is simple but at the same time exhaustive and thorough enough for my purposes. In addition I consulted the *OED* and a couple of other grammars.

SENSE	EXAMPLE
(1) Quantities	some of the rice; both of these books
(2) Measurements, units	two spoonfuls of sugar
(3) Possession, having	the University of London
(4) Of-noun as subject	the approval of your parents
(5) Double possession	I want a room of my own
(6) Of-noun as object	a change of plan
(7) Adjectives followed by of	But I'm not fond of snakes.
(8) Causes, origins	His father has just died <i>of</i> cancer.
(9) The two things are the same	the Isle of Wight
(10) Verb $(+ noun) + of$	I wouldn't dream of telling you.

Table 4: Senses of the preposition of according to Chalker (1990, 275-277)

The table shows the diversity of this particular preposition. In addition to the meanings mentioned above, Heaton (1965, 4-5) separates the meaning about/concerning, as in "He spoke of the great inventor with much respect", which Chalker would probably include in the meaning group (10). Furthermore Heaton (1965, 5) lists the meaning from, e.g. in "Tibet is north of India", which represents the original meaning of the preposition. He also states that in some cases the preposition of can be used to mean from (cf. section 3). The examples that he gives are "die of wounds" and "expecting something of a person". The first of these is much of interest from the point of view of this thesis but unfortunately Heaton (ibid.) does not give any specific comments on it. However, in the table above we are able to detect that Chalker separates "causes and origins" as its own meaning group and gives an additional example with the verb die. The OED (1989) also separates a sense "indicating the cause, reason, or ground of an action, fact, feeling, etc." It gives one example with die: "I am dying of fatigue". Huddleston and Pullum (2002, 659) state that the occurrence of the preposition of indicating cause is mainly restricted to the verb die. They give here the example "He died of a broken heart". This is an interesting argument and it is worth testing with the help of the BNC, because it is stated e.g. in the OED (1989) that of can be used after an intransitive verb such as die or perish to denote cause.

By using the BNC data as a tool it can easily be noticed that *die* is not the only verb that occurs with *of* indicating cause. There were four cases with the verb *perish*, such as "perish of hunger and disease", "perish of dreariness and despair", perish of some wasting disease" and "perish of liver-rot". Of course four examples is very little but it proves that also the pattern *perish* + *of* can indicate cause.

6.3 The preposition from

The semantics of the preposition *from* seems to be less challenging to analyse than the meanings that *of* has. I will introduce this preposition again by using a table that is based on Chalker's (1990) definitions of *from*:

SENSE	EXAMPLE
(1) Starting point in time or place	from today; Where are you from?
(2) The origin, source or cause of smth	Much love <i>from</i> Clare; She was suffering <i>from</i> the after-effects.
(3) Separation, removal or difference	He was released <i>from</i> hospital after blood tests.

Table 5: Senses of the preposition *from* according to Chalker (1990, 155-156)

According to Huddleston and Pullum (2002, 656), the basic meaning of *from* is marking the source location. This basic meaning, however, extends to duration in time, which is also mentioned in the table above. An interesting remark that Huddleston and Pullum (ibid.) make is that the preposition *from* can have other metaphorical extensions as well, e.g. the one marking cause: "They died from malnutrition". However, Huddleston and Pullum (ibid.) analyse this sense further by stating that this kind of use is highly restricted due to the fact that causes are not normally expressed by a *from* PP. Thus, the preposition *from* is not grammaticised in this role. They also give an example how this can be tested by passivisation:

"-- if a tornado is the cause of the destruction of a house, we cannot therefore use *from* in a passive clause (**The house was destroyed from a tornado*)." (Huddleston & Pullum, 2002, 656)

It could now be assumed that the same hypothesis that Huddleston and Pullum (cf. 6.2) stated with the preposition *of*, applies also to *from*. But how restricted is the use of *from* in reality when indicating cause?

Again with the help of the BNC I was able to find the verb *perish*, which occurs in a construction *perish* + *from* and denotes cause. There were altogether eight instances in the corpus and examples of the complements would be e.g. "perish from starvation", "perish from mystery epidemic", "perish from the cold" and "perish from their wounds". The verb *perish* is almost identical in meaning with the verb *die* and this could be one of the reasons why they also seem to behave grammatically and semantically the same way, i.e. prepositions *of* and *from* are used with them in a very restricted meaning (cf. Hunston and Francis, 2000, 83). In addition to the examples

with *perish* the *OED* gives the example "The man could not be brought here...without imminent danger of expiring from fatigue". Here the PP with *from* is clearly used to denote cause. However, this example was from the year 1776 and perhaps therefore no similar cases were found in the BNC.

6.4 The preposition with

The basic meanings of the preposition *with* are presented in the following table:

SENSE	EXAMPLE
(1) Having	a book with lots of pictures
(2) Accompanying; together	Bring your passport <i>with</i> you; She is now living <i>with</i> her daughter
(3) Using; because of; in a particular manner	Cut it open <i>with</i> a knife; They were shivering <i>with</i> cold
(4) Concerning; regarding; in connection with	I'm pleased <i>with</i> him; Are you in love <i>with</i> her?
(5) Introducing a sort of clause (meaning "because")	With Charles at home ill, I can't get out much.
(6) Refers to the thing we use for doing smth	I was hit over the head with a chair

Table 6: Senses of the preposition with according to Chalker (1990, 427)

The *OED* (1989) separates three larger meaning groups under the preposition *with*:

- 1. Denoting opposition and derived notions (separation; motion towards).
- 2. Denoting personal relation, agreement, association, connexion, union, addition.
- 3. Denoting instrumentality, causation, or agency.

From the point of view of this thesis it is important to take a closer look at group three both in the table above and in the *OED* division, because there the preposition *with* is said to indicate cause. There is a separate sub-group in the *OED* (ibid.) which describes the preposition in question in the following way:

"Indicating the cause or reason: In consequence of, as a result of, by the action of; because of, by reason of, on account of; from, through, by."

It is also added in the dictionary that the preposition *of* is now sometimes used instead of *with* and in some cases *of* and *with* are used with distinction of meaning (cf. table 1, p.7). However, it is also interesting to notice that the preposition *with* can be used to denote meanings that are generally expressed by *from*, *through* and *by*, as mentioned above. If we go back to analyse table 1 (ibid.),

where it is stated that the verb *die* was "formerly" used in constructions such as "with a disease" or "with a sword", it could be assumed that this use is nowadays perhaps considered archaic. The *OED* also gives very old example sentences, including one with *die* and again one with *perish*:

- (22) Went they not quickly, I should *die with laughing*. (from the year 1596)
- (23) These did perish in their owne sinne, although they *perished with his fault*. (from the year 1600)

It is important to notice that according to the OED the prepositions accompanying the verb die were employed less strictly. This could partly explain the fact why the use of die + with is nowadays probably less common.

6.5 The preposition through

The following three sections will deal with less common prepositions that occur with *die*, and these are *through*, *by* and *for*. The prototypical meanings of the preposition *through* are given in the following table:

SENSE	EXAMPLE
(1) Place: in one side or end of smth and out	I hope it doesn't take long getting
at the other	through Customs.
(2) Time: from beginning to end	She slept <i>through</i> the thunderstorm.
(3) Because of	She had a terrible life <i>through</i> no fault
	of her own.
(4) Various other uses, e.g. passing, finishing	Did you get <i>through</i> your exam?
	I'll never get <i>through</i> all my work.
	I've looked <i>through</i> this catalogue

Table 7: Senses of the preposition *through* according to Chalker (1990, 380-381)

Sense 3 in the table is the most interesting one when considering the complementation of *die*. In this context the preposition *through* indicates that something happens *because of/due to* something. The *OED* (1989) also states that *through* may be used to denote "cause, reason, or motive". It gives, however, only one example with the verb *die*, which is "die through neglect". This suggests that the

use of *through* is rather rare with this verb and therefore the pattern deserves further examination with the help of the BNC.

6.6 The preposition by

According to the BNC data (cf. table 2), the preposition by is also very rarely used with the verb die. When taking a closer look at this individual preposition it can be noticed that it is used in various different senses:

SENSE	EXAMPLE
(1) Place: near, beside	It's nice living by the sea.
(2) By + agent	She was killed <i>by</i> the falling chimney.
(3) By + means/method	He escaped from the prison by sawing through the bars.
(4) No later than; when (this time) is/was reached	Your father thinks you'll be back <i>by</i> Christmas.
(5) Time: during	Even <i>by</i> day, the aeroplane noise was a nuisance.
(6) Measurements, amounts	If you're paid by the hour you don't get any sick pay.
(7) Various other uses	It's OK by me. He's a doctor by profession. You can't always judge by appearances.

Table 8: Senses of the preposition by according to Chalker (1990, 77-78)

Chalker (ibid.) does not mention a sense that would denote "cause". However, the *OED* (1989) has it on its list:

"The sense of 'means' sometimes approaches or passes into that of 'cause' or 'reason': Because of, on account of, in consequence of, through; in virtue of, on the ground of."

Although this sense is mentioned there are no examples of the combination die + by. In the empirical part I will examine the occurrence of this pattern and try to find out in which kinds of contexts this preposition is used. Does it have certain limitations which make it less common with the verb die?

6.7 The preposition for

The combination die + for causes the most difficulty when trying to analyse the complementation patterns. In chapter 5 I already took a quick glance at some of the possibilities but as the table 2 shows the use of the preposition for with the verb die can be considered highly exceptional. In the following table I have listed the prototypical senses that the preposition for has:

SENSE	EXAMPLE
(1) Expressing a purpose, or a reason	He's taking me to London for my
	birthday.
(2) Introducing the person/people who will	We all felt sorry for my brother-in-
receive smth, or use it, or be helped by it	law.
(3) Introducing the object or destination of	We waited ages for a bus.
something	
(4) In favour of (opposite of against)	Are you <i>for</i> this change in the law?
(5) Answers the question "How long?"	I was interviewed <i>for</i> twenty minutes.
(6) Refers to length of time (past, present or	We lived there (for) twelve years.
future)	
(7) Preposition of distance	We walked very quickly <i>for</i> three
_	miles.
(8) Various other uses	I enclose a cheque for £50.20.
	What's another word for silly?

Table 9: Senses of the preposition for according to Chalker (1990, 149-151)

It is interesting to perceive how the sense denoting "cause" does not occur in this list. The *OED* (1989), however, does give also the sense of "cause or reason". One of its sub-groups, called "of an efficient or operative cause", has a description which is noteworthy:

"In consequence of, by reason of, as the effect of. (Now chiefly after comparatives; otherwise usu. replaced by *from*, *of*, *through*.)" (*OED*, 1989)

The *OED* lists here two example sentences with *die* in addition to several other examples. These examples are: "To die for thirst standyng in the river" and "In this room a debtor of his...died for want." The former dates back to the 16th century and the latter is from the year 1766. Therefore it could be assumed that the use of the preposition *for* to denote cause with the verb *die* was more common when we go back a few hundred years, but now these archaic expressions would be replaced with the more common prepositions, such as *of* and *from*. Unfortunately this remains only

a hypothesis, since in the empirical part I will only examine the data representing present-day English. However, I assume that the majority of the data from the BNC that represents the die + for pattern does not occur in complement structures but rather shows examples of various adjunct constructions.

7. Die + a prepositional complement in the BNC

In this empirical part of my thesis I am going to examine the verb *die* and its prepositional complements individually. I have used the Sketch Engine for the searches within the British National Corpus. The corpus gives altogether 9109 hits for the verb *die* when the right context is specified as a preposition and includes two tokens in the concordance. The search includes also all the inflected forms of *die*: *dies*, *died* and *dying*. However, in this examination I will not use a random sample from the total of 9109 but make some additional searches, which means that the totals will vary in case of every preposition. The additional searches enable me to put the focus on individual prepositions so that their occurrence will be easier to analyse and one can draw more realistic conclusions from the results. The amount of the data in this whole section is about 18% of the total 9109 due to the fact that in most of the cases I have included all the examples that were found in the BNC.

As table 2 shows, the prepositions *of* and *from* are clearly the most common ones with the verb *die*. The totals of these two in the BNC were 1086 and 585 tokens. In the additional searches I have included 500 examples from both of these prepositions. Because the amount is the same in these two groups, it will make possible direct comparisons between them. With other prepositions I have used all the examples that the BNC gives, because their occurrence is less common. Thus, there are 199 examples of *with*, 22 of *through*, 74 of *by* and finally 326 of *for*. This makes altogether 1621 examples (18% of the total) and it will be a sufficient amount for my analysis.

7.1 Die + of

According to the *OED* (1989, 631), the verb *die* can have the prepositional complement *of* in the following contexts: *to die of malady, hunger, old age, or the like*. As already mentioned in chapter 3, Heaton (1965, 5) adds the possibility of *die of wounds* and Vestergaard (1977, 183) spoke here also of *fever* and *starvation*. An interesting statement, however, is found in the Collins Cobuild English Dictionary (CCED) (1995, 455). According to this dictionary *die* can occur with the preposition *of* in informal English to emphasise e.g. your feelings or the possible situation you are in: *to die of thirst, hunger, boredom or curiosity* or *to die of shame*, when something is for example shocking, upsetting, embarrassing or amusing.

To help the examination of the data from the BNC I have divided the contexts in which the prepositions occur into meaning groups as follows:

- 1. Diseases/maladies/illnesses
- 2. Wounds/injuries
- 3. Feelings/SOA (states of affairs)
- 4. Hunger/thirst/starvation
- 5. Other

This division is partly based on the examples given by the *OED* (1989) (cf. table 1) and partly on my own observations while examining the data from the BNC. The following table represents the division of the preposition *of* into these meaning groups (the case where *die* is a noun, not a verb, is marked here as an invalid case):

	Amount	%
1. Diseases/illnesses/maladies	345	69
2. Wounds/injuries	46	9,2
3. Feelings/SOA	45	9
4. Hunger/thirst/starvation	37	7,4
5. Other	26	5,2
Invalid cases	1	0,2
TOTAL	500	100

Table 10: *Die* + preposition complement *of* in the BNC

Predictably, group 1 was the most common with combinations die + of. It contained 345 instances of the total. This means that almost 70 % of the cases had to do with some kinds of diseases and illnesses, as in:

- (24) She did eventually *die of a heart attack* [--] (CEK)
- (25) His father had *died of lung cancer* when he was seven. (CMJ)

I also included cases with *overdose*, *poisoning*, and *drink* in this group 1. Group 2 (wounds and injuries) was much smaller. It contained only 46 examples (9,2% of the total). Perhaps this is due to the fact that the more common preposition in this sense would be *from* (cf. table 1). Here is example sentence from the corpus:

(26) A former soldier and adventurer, [--], *died of a single bullet wound*. (K3K)

Group 2 contained also instances with *accident*, *exposure*, and *musket fire*. They are not injuries but I included them in this group, because they are very likely to cause injuries.

The third group, feelings and states of affairs, contained 45 instances, i.e. 9%. There are examples with *boredom*, *shame*, and *embarrassment* in the corpus, but also other interesting cases, such as:

- (27) I thought he *died of a broken heart*. (HR7)
- (28) I almost died of fear. (CBC)
- (29) I swear, he's dying of love for you. (GWH)
- (30) The Saturday Benediction was slowly dying of indifference. (GVT)
- (31) I thought we should *die of laughing*. (CA6)
- (32) In which case some of us may well die of surprise. (CH1)
- (33) I feel I shall *die of misery* [--] (BNN)
- (34) [--] she recognised that he might die of grief or loneliness. (A6J)

The most common genre in which these cases occur was fictive prose, but other genres were newspaper and a biography. This means that the interpretation in the CCED does not necessarily

hold, because it was stated that this meaning group represents informal English. However, I am of the opinion that the cases in this group are used more in a figurative sense, i.e. the subject of the sentence does not experience an *actual* death. Most of the examples above also contain a sense of uncertainty, which is created e.g. with the expressions "may", "might", "almost", "I thought…" and "I feel I shall…" It is also noteworthy that when the example has a figurative sense, the subject does not have to be animate (example 30).

Group 4 (hunger/thirst/starvation) was again rather small, since it only had 37 members (7,4%). The cases were all rather straightforward and all came up with the words *hunger*, *thirst*, *starvation*, *malnutrition* or *famine*. The subjects of the sentences were animate in every case, which also applied to groups 1 and 2. The last group, which I call "other", contained 26 instances and was a group mainly for exceptional and rare cases, but there were also examples that are not necessarily rare but did not fit into any other group. An example would be:

(35) Nobody who spends £500 on a jacket wants to discard it the following year, he believes, insisting that no Armani design dates before it *dies of old age*.(A7P)

This context (*old age*) was mentioned in the *OED* (1989, 631), but there were only three examples with this sense in the random sample from the BNC. Other interesting examples were:

- (36) Unprotected in the desert, they would lose so much water by the evaporation that they would quickly *die of desiccation*. (CJ3)
- (37) I was not ill, but I nearly died of my own neglect. (EWX)
- (38) [--] and there was a bloke once *died of drinking too much carrot juice*. (G1D)
- (39) You don't think it's *dying of corruption*, do you, [--] (HTS)

Example 36 could perhaps be included in group 4, because it deals with the lack of something that is important for the survival of animals and human beings. Example 37 is interesting, because the *OED* (1989, 631) states that with this case a more common preposition is *through*. I made an additional search and found out that there were only three other cases in the BNC with the pattern *die of neglect*. Therefore it could be stated that the preposition *of* is exceptional in this context.

Example 38, on the other hand, is not necessarily rare, because a similar example can be found in Rudanko's study (1996, 166): *He died of eating mushrooms*. But in my data there was only one other example of this kind with the preposition *of*: *Racehorses have been known to die of eating chocolate* (FU2). At this point it is worth noting that here the complement is not nominal, as in most other cases. However, Example 39 is very interesting. There is only one similar kind of example in the BNC and it is with the pattern "died of neglect and war". Here the same preposition is used with both of the nouns, which is again rather surprising, because the preposition *of* does not seem to be commonly used with *neglect* (see above). But it seems to be acceptable with *corruption* and *war*. Thus, it can be stated that this kind of use is exceptional.

There were also a few additional examples in this group 5 that are worth mentioning:

- (40) [--] I regret to report that the organization of China-Canada Inc. seemed to *die of inactivity* after its founder left for China in 1946; [--] (B11)
- (41) Technical experiments like stream-of-consciousness had *died of inanition* some years before, [--] (CKN)
- (42) I can see a marriage that is not a marriage and a parson who is not a parson, and you will *die of your first child*. (FU4)
- (43) Come on, dear girl, you will die of heat on your bicycle, [--] (G3B)

In my opinion, these examples represent the diversity that the preposition of can bring when combined with the verb die. They also support the fact that of can be used almost with any kind of complement without sounding weird or unexpected. This group 5 also contains many examples where the pattern die + of is used figuratively with both inanimate and animate subjects, as e.g. in sentences 40 and 42. Example 43 also represents a figurative sense. These examples prove that this kind of use of the preposition of is rather common for the members of group 5.

The rest of the cases in this random sample were of the form *die of natural* causes/unrelated causes, where one is not able to identify the cause of death and therefore these cases could not be categorised under any other group. There was one extra example in the data:

(44) One night, round six or so, (quite likely) wearing shades, a janitor from Lethe Co. (the wrong side of the tracks) will slam (impossible) the sliding door and make them *die of income tax*. (HRL)

This is a weird example with die + of pattern, but the fact that the genre is fictive poetry, helps to clarify the case. When the left context is expanded in the BNC one realises that the writer mocks the people working for insurance, real estate or pharmaceutical companies.

7.2 *Die* + *from*

The two patterns, die + of and die + from, are very much used the same way, i.e. in a similar causal sense as Radden (1995, 188) states. However, the most marked differences can be detected in the size of the groups and, on the other hand, in group 5 which again deals with the exceptional cases. The following table again represents the division of the examples into meaning groups:

	Amount	%
1. Diseases/illnesses/maladies	291	58,2
2. Wounds/injuries	123	24,6
3. Feelings/SOA	10	2
4. Hunger/thirst/starvation	20	4
5. Other	47	9,4
Invalid cases	9	1,8
TOTAL	500	100

Table 11 : *Die* + preposition complement *from* in the BNC

There were 8 cases in the data with die + adjunct, e.g.:

- (45) Characters who are going to die must begin dying from the start. (CA6)
- (46) The smile had *died from his eyes* [--] (GUF)

These examples mentioned above were clear adjunct cases, because Huddleston's (1988, 52) criteria of *non-omissibility* and *verb lexeme classification* as well as Somers's *extraction method* can be used here (cf. 4.2). Thus, both phrases "from the start" and "from his eyes" can be omitted without changing the meaning of the predicate verb or making the sentence ungrammatical. It can also be noticed that there is no tight link between the verb and the preposition. In addition to

adjuncts there was also one case where *die* was a noun. It is again included in invalid cases in the table:

(47) [--] there may have been other reasons why the Maldon army had a Northumbrian hostage (even assuming that the poem is reliable) and Æthelred a Northumbrian wife, quite unconnected with the absence of Second Hand *dies* from northern mints. (HXX)

The first group (diseases/maladies/illnesses) was again the largest with the pattern *die* + *from*. It contained altogether 291 examples, which means that this group covers almost 60% of the total of 500 examples. There were lots of sentences such as:

- (48) He died from a coronary thrombosis, [--] (GT9)
- (49) [--] the increasing numbers of cows dying from the BSE condition [--] (J2Y)
- (50) A year ago her mother Vicki died from liver cancer. (K1U)

A remarkable difference can be noticed in the second group (wounds/injuries). There were 123 instances in the random sample of the BNC and it is 24,6% of the total 500. The example sentences were all of the same kind as with the pattern die + of but if we compare the percentages of the same group with a different pattern we can detect that the pattern die + from is over two times more common with wounds and injuries.

But is there an underlying difference between these two prepositions of and from? This question can again be approached by consulting Radden's (1995, 188)) study. He has namely noticed that many grammarians are of the opinion that "with diseases leading to one's death, the preposition of is used, but with its other causes, the preposition from is needed". However, Radden (1995, 189) argues that this theory may apply to some cases but it does not explain why one can say e.g. either "the soldier died of his wounds" or "the soldier died from severe wounds". Radden (ibid.) continues that the difference between these prepositions can be explained by examining their spatial grounding (cf. table 3). Thus, he is of the opinion that the sense of cause extends from the original spatial sense of the preposition. This is illustrated in the following figure, which Radden gives (the figure is simplified from that of Radden):

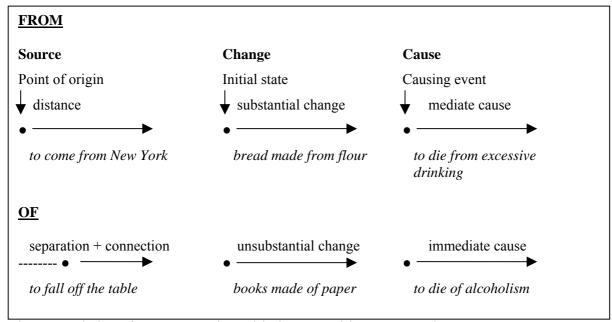


Figure 1: Chains of sense extension with the prepositions from and of

This table suggests that the prototypical meaning of the preposition *from*, which refers to a point of origin and through that also to distance, first extends to that of change. The point where *from* refers to change means that e.g. in baking "the ingredients undergo a substantial change and are no longer felt to be present in the resulting product" (Radden, 1995, 189). This sense of change can be then extended to describe mediate cause, which is again related to a *distant* point of origin as in "to die from excessive drinking".

The same kinds of extensions also apply to the preposition *of*, which according to Radden (1995, 189) begin with the spatial sense of *off* denoting separation and connection. When this sense is extended, the preposition starts to indicate unsubstantial change as in "books are made of paper". Here the printing-paper undergoes only a minor change, i.e. "the paper is still viewed to be the original substance" (Radden, 1995, 190). The final extension of the preposition *of* leads to denote immediate cause, which relates to a *closer* point of origin.

If we return to compare the different percentages that occurred with the prepositions of and from in groups 1 and 2, it could be stated that there is some truth in what Radden is suggesting. Thus, the preposition of was more common with diseases, which can be said to represent the immediate cause. In addition, the preposition from was used more with wounds and

injuries, which can be related to mediate cause, since the word "wound" does not reveal the actual cause of the death.

Another notable difference in the percentages can be perceived also with the third group (feelings/SOA), where there were only 10 examples (2%). They occurred with nouns such as: *shock*, *exhaustion*, *boredom*, *embarrassment*, *fright*, *loss* and *guilt*. Compared with the same group of the pattern *die* + *of*, which covered 9% of the total, it is rather obvious that the *die* + *from* pattern is much less likely in this sense. The same holds good also for the fourth group, in which there were only 20 example sentences (4%). All of them were formed with the pattern *die* + *from* + *hunger/starvation/malnutrition* and they all had animate subjects as did the examples in groups 1 and 2.

The most interesting group is again the last one, which contains 47 examples that do not fit into any other group. This group is even larger than groups 3 and 4 and covers 9,4% of the total. In this group I found a couple of examples with *die from fire*, which on one hand could be included in group 2 since *fire* is also likely to cause injuries. But on the other hand, the following instances of group 5 made me re-evaluate the whole group:

- (51) [--] like the Californian was much, much less likely to die *from an earthquake*[--] (KHR)
- (52) The National Radiological Protection Board (NRPB) which advises the government on radiation hazards, now estimates that up to a hundred people will have *died from the fallout*. (AN9)
- (53) Thousands of fish died from river pollution. (K1R)
- (54) [--] trees are dying from acid rain. (CER)
- (55) [--] two-thirds of the country's trees were sick or dying from the effects of traffic and industrial fumes. (J3C)

In my opinion the examples above could form a small additional group with the examples of *die* from fire, because they all deal with some phenomenon that happens in or because of the nature and

is a threat to it and also to human beings and animals. Therefore these examples do not quite fit into group 2.

Two other example sentences resemble the one from Rudanko (1996, 172). He states that the sentence *He died of eating mushrooms* can occur also with the preposition *from*. The similar instances in the BNC were:

- (56) [--] half of the 100 or so baiji found dead had *died from swallowing or being snagged by fish hooks*. (ABC)
- (57) By the 1980s 300 people had died from eating the poisoned fish [--] (AMS)
- (58) Granny died from eating chips. (CDM)

These examples all relate to eating but there were also a few cases in the BNC that had to do with something else. It is again noteworthy that these examples have sentential complements, not nominal:

- (59) [--] and a cousin Pete had all *died from having things dropped on them* from cranes down the docks. (F9C)
- (60) His wife died from being too lower class. (H0M)
- (61) They died from being watered? (KBK)

I would assume that the occurrence of the preposition *from* in these kinds of examples is as accepted as the use of the preposition *of*, since the occurrence of these sentential complements is presumably not that common with *die*.

However, the majority of this group 5 consisted of the pattern die + from + natural causes/related causes. The cause of death remains unclear and therefore they are included in this last group. However, there were again some additional examples that deserve closer examination:

- (62) They thought it was dying from old age. (JYE)
- (63) No one will *die from lack of education* [--] (ASY)
- (64) [--] how an elderley man *died from the treatment* he was taking for athlete[']s foot. (K25)

(65) In that time another baby *dies from unsafe bottle feeding*. (HSL)

(66) [--] around 3 per cent of the total expected to *die from violent crime* [--] (K5L) More examples with the pattern *die* + *prep* + *old age* were found with the preposition *of*, and also the *OED* (1989, 631) gives only the example *die of old age*. Therefore it could be argued that the preposition *from* is less common in this context. The example with *lack of education* is interesting, because it occurs in a negative form. In my opinion this again suggests that the verb *die* is used here in a figurative sense. At this point it is also important to notice that the use of *from* in a figurative sense can be perceived again only with groups 3 and 5, which held good also with *of*.

The next two examples could have been included in group 2, because of the possible injuries. However, in my opinion it does not belong there. In example 64 the person has probably died because of the side effects, not necessarily injuries and the same applies to example 65, where the baby is for instance in danger of dying from chocking. The last example again represents a case which could be regarded as a member of the second group. But I included it in this additional group, because the cause of death is not clear enough. The preposition *from* in these examples could refer to Radden's (1995, 190) notion of mediate cause and therefore it is used here. However, it has to be stated that although Radden (1995) provides a good foundation for the semantic distinction of the prepositions *of* and *from*, his theory is not fully supported by the data of the BNC. Thus, both of these prepositions are sometimes used to denote immediate cause as in "die of cancer" and "die from cancer", while sometimes they occur in the sense of mediate cause, e.g. "die of wounds" or "die from wounds".

7.3 Die + with

The preposition with was the third most common with the verb die when examining the additional searches from the BNC. The following table shows, however, that in this case the majority if the combinations die + with had to be left out from this study, since they formed adjunct constructions. These are again marked as invalid cases in the table. Thus, only 33 example sentences were

significant from the point of view of my study. Nevertheless, the analysis of the examples that were formed following the pattern die + with was more demanding since some of the cases were not that straightforward than the ones formed with the more common prepositions of and from. A few problems arose e.g. when trying to define whether the preposition with is functioning as a part of a complement clause or an adjunct. In the following I will also take a look at these borderline cases.

	Amount	%
1. Diseases/illnesses/maladies	15	7,5
2. Wounds/injuries	6	3
3. Feelings/SOA	4	2
4. Hunger/thirst/starvation	0	0
5. Other	0	0
Invalid cases	174	87,5
TOTAL	199	100

Table 12: *Die* + preposition complement *with* in the BNC

The largest group here was again "diseases/illnesses/maladies", where the examples consisted of combinations, such as: "die with AIDS/tonsillitis/asthma/coronaries/TB/uncontrolled hypercalcaemia and smallpox". As the *OED* (1989) states, the preposition *with* has been formerly used with diseases. This could also explain why there are so few examples of this kind in the BNC. The second group (wounds/injuries) was very small with only six instances. Four of them were formed with the word "wound" and were therefore self-evident members of this group. Two of them, on the other hand, were of the form "die with the cold". I listed these examples under this group, since dying of exposure is very likely to cause some kind of injuries.

The third group (feelings/SOA) needs a more thorough examination. The random sample from the BNC contained the following four examples:

- (67) [--] if you turn him off, he will soon die with grief. (AN4)
- (68) [--] I'd die with embarrassment [--] (CA9)
- (69) I shall die with that feeling of guilt (FS1)
- (70) Ronni was dying with happiness. (JXT)

With these example sentences it was rather difficult to determine the role of the preposition. This was e.g. due to the fact that same kinds of sentences occurred earlier with the prepositions *of* and *from* (cf. 7.1 and 7.2). Example 67 could in my opinion be translated either "kuolla suruun" or simply "kuolla suruissaan". The former translation, which is perhaps the more common one, would suggest that we are dealing with a complement, because the link between the verb and the preposition is tighter than in the latter one, which indicates towards an adjunct. In addition, the phrase "die with that feeling of guilt" could also be regarded as an adjunct, because in this example the meaning of the prepositional phrase is directly derivable from the preposition. Thus, the phrase could be translated as "kuolla syyllisyydentunnossaan" rather than "kuolla syyllisyydentuntoon". But in either case I assume that this kind of use of the preposition *with* is extremely marginal. In a figurative sense the prepositions *of* and *from* seem to be much more common.

There were no sentences of the pattern die + with in the random sample that would belong to group 4 or 5. However, Rudanko (1999, 99) lists one case which I would include in group 5 and this occurs with the pattern "die with blushing". This example dates back to the 18^{th} century and it could be assumed that the use of *with* has been dying out and is more or less replaced with *of* and *from*. On could test this hypothesis with additional diachronic data and perhaps it would find support for the *OED*'s (1989) view that the preposition *with* has been "formerly" more common used in combinations with die + disease.

$7.4 \, Die + through$

An even rarer preposition with the verb *die* is *through*. There were only 22 instances of this kind in the BNC and therefore I did not need to take a random sample for the analysis. The examples were divided as follows:

	Amount	°/ ₀
1. Diseases/illnesses/maladies	7	32
2. Wounds/injuries	0	0
3. Feelings/SOA	0	0
4. Hunger/thirst/starvation	1	4,5
5. Other	14	63,5
Invalid cases	0	0
TOTAL	22	100

Table 13: Die + preposition complement through in the BNC

The seven examples in the BNC that had to do with a disease were all rather straightforward. I also included the example with "dying through solvent abuse" in this group. However, there were no example sentences that would represent groups 2 or 3 and only one belonging to group 4:

(71) [--] numbers of people, especially children, are *dying through lack of food and water*. (CCH)

The rest of the examples had to be categorised under group 5. Consider e.g. the following cases:

- (72) If Hector *dies through your treachery*, [--] (APW)
- (73) [--] the remorseful Achilles reflects on his men who *died through his fault*. (J1A)
- (74) She *died through a backstreet abortion* [--] (FXX)
- (74) [--] but so many have *died through lack of thought, facilities and impatience*. (C95)

As Chalker (1990, 381) and the *OED* (1989) state, the preposition *through* can be used to denote "cause" (cf. also 6.5). The one thing in common for the first three examples is that in them someone dies by someone else's hand. This, however, does not apply to example 74, which represents a unique case. It is also important to notice that these examples are not used in a figurative sense. Thus, the subject in them has *actually* died.

Here we could also use Radden's (1995, 199) views on the preposition *through*, in order to get some clarification to these examples that mainly belong to this group of additional cases. Radden (ibid.) compares the causative sense of the preposition *through* with the phrase "passing through a tunnel". He states that this phrase helps to understand that this preposition is used with indirect causation. An example of this would be: "We have got into trouble through your

stupidity." Radden (ibid.) suggests that the trouble in caused by our "passing through a tunnel of stupidity". He goes on by stating that along this journey through it, the tunnel has only an indirect effect on us.

In my opinion Radden's theory does hold true in most of the cases with die + through. Consider e.g. the following examples that are all used with the –ing-form:

- (75) At least one citizen died through coming back into the town [--] (ASR)
- (76) [--] and one had even laid down died through being ridden too hard. (BPK)
- (77) Several other methods came to light and *died through being impractical* [--] (CRP)
- (78) [--] the person who had *died through eating their flesh*. (CET)
- (79) They have to *die through neglect* or *through being supplanted by a better one*. (H0E)

Otherwise there is very little in common with these examples. Therefore they were listed in this last group. The preposition *through* seems to be very rarely used with the verb *die*, and I am of the opinion that in most of these cases with the –ing-form, the preposition *by* could be used to replace *through*. However, this does not apply e.g. to examples 78 and 79 which deal with "eating something" or "dying through neglect". They could also occur with *of* or *from* as was stated in the earlier sections. Perhaps the best way to justify the use of *through* with the verb *die* would be Radden's (1995, 200) view of indirectness, since it implies that the cause of death can seen as "a result of an agent's action or way of behaviour".

7.5 Die + by

The occurrence of the preposition by in a complement construction also seems to be rare with the verb *die* but, however, the data yielded some examples, which are categorised in the following table:

	Amount	0/0
1. Diseases/illnesses/maladies	1	1,4
2. Wounds/injuries	2	2,7
3. Feelings/SOA	0	0
4. Hunger/thirst/starvation	0	0
5. Other	26	35,1
Invalid cases	45	60,8
TOTAL	74	100

Table 14: *Die* + preposition complement *by* in the BNC

The cases where I have regarded the construction as an adjunct are again marked as invalid and left out from the analysis.

The cases belonging to groups 1 and 2 were again the most straightforward. There was only one example representing the group of "diseases":

The constructions that could be listed under wounds and injuries were "die by stoning" and "die by blows from a blunt instrument". However, there were no examples in the data that would fit into groups 3 or 4. At this point it has to be noted that the distinction between complements and adjuncts was very difficult to make with certain examples, because the data included sentences such as:

- (81) [--] then a guru told him that one day he would *die by water*. (FEP)
- (82) [--] Hophni and Phinehas will both *die by the sword* [--] (ACG)
- (83) It is terrible to *die by the hand of a friend*. (FPV)
- (84) [--] the faithful lady who *died by the gun* to warn her lover[--] (ACW)
- (85) One of the prisoners she wrote to has died by the electric chair. (K20)

Even though it could be argued that these examples form adjunct constructions I included them in group 5 and regarded them as complements. The examples above do seem to have the pattern by + agent, which was mentioned by Chalker (1990, 74). Therefore they give the impression of an adjunct. But because the OED (1989) (cf. 6.6) states that with the preposition by "the sense of 'means' sometimes approaches or passes into that of 'cause' or 'reason'" the link between the

predicate and the preposition started to feel tighter in these examples. Therefore it remains an argument that although there *is* a certain "agent-like" effect in these phrases, the deeper meaning of *by* is to denote the cause of death, which can be water, a sword, a friend, a gun, the electric chair or the like.

There were also quite a few –ing-forms in the complements that I listed under group 5, e.g.:

- (85) Barbarossa *died by drowning* or from a heart attack [--] (ASW)
- (86) [--] you'll wither *die by hanging* or die of the pox! (HH5)
- (87) She was condemned to *die by stoning*, [--] (CJP)
- (88) All the boys had *died by strangling*. (K8V)

Examples 85 and 86 are interesting, because the preposition changes in the middle of the sentence. The prepositions *from* and *of* are used with illnesses but the "means" is expressed by using the preposition *by*. However, I am of the opinion that here the meaning of the preposition represents again more the cause than the means.

The rest of the examples were formed e.g. with the combinations "die by non-intervention/neglect/ asphyxiation/involuntary euthanasia/the competitiveness/an IRA bomb". The use of *by* with these kinds of examples is probably very rare, since there were no other example sentences in the BNC. For instance the more common preposition with "neglect" would be *of*, *from* or *through*. However, the data from the BNC shows that *by* really can occur with the verb *die* and indicate cause.

7.6 Die + for

The last preposition that can be used with *die* in a complement construction is *for*. Although there were only very few examples in the BNC that could be analysed here as complements, I wanted to include this preposition in my thesis. First of all, because the BNC shows that this preposition can occur with *die* and not form an adjunct construction. Second of all, I wanted to examine it, because

e.g. Vestergaard (1977, 183) (cf. section 3) gave the peculiar example with "die for shame", which did not find any support in the BNC.

As the following table shows, almost all the example sentences with die + for represented an adjunct construction. These are marked as invalid cases.

	Amount	0/0
1. Diseases/illnesses/maladies	0	0
2. Wounds/injuries	0	0
3. Feelings/SOA	0	0
4. Hunger/thirst/starvation	0	0
5. Other	8	2,5
Invalid cases	318	97,5
TOTAL	326	100

Table 15: die + preposition complement for in the BNC

There were all in all only eight instances of a complement construction and I listed all of them under group 5. The examples were:

- (89) [--] poor season might well lead to all of them *dying for lack of adequate nourishment*. (F9F)
- (90) [--] she won't die for lack of vitamins. (KBH)
- (91) [--] large numbers of fish, which die for lack of oxygen, [--] (J32)
- (92) [--] people hack and cough and go untended, die for lack of attention, [--] (HGJ)
- (93) Whereas Montaine had died for her inadequacies, [--] (FAT)
- (94) Under our laws, you can *die for killing a hawk*, [--] (H84)
- (95) Firdaus is a prostitute about to *die for the murder of her pimp*. (HH3)
- (96) Greater a man have died for laughter. (KE3)

As can be interpreted from the data, the first four examples occur all with the word "lack".

Therefore the reason or cause of death is "not having something which is essential for the survival", except in example 90 which is in a negative form. However, according to the BNC a more common preposition with these kinds of cases would be *from*.

The next three examples are again very much alike. If a person has done or does something wrong or against the law, he/she might have to "die because of his/her actions". In my opinion the prepositions *of* and *from* would sound awkward here – perhaps because the meaning of *for* approaches the meaning of "in consequence of". The last example is again a unique one. There was only one other similar case found in the BNC and it occurred with the preposition *of*.

The data from the BNC proves that the use of the preposition *for* is extremely marginal with the verb *die*. The reason for this could be the one that the *OED* (1989) gives: *for* is now usually replaced with the prepositions *of*, *from* or *through*. Lastly, it has to be stated that Radden (1995, 194) does give an example sentence with the pattern "die for shame". He argues that the causal *for* is used "to describe situations in which emotions or sensations evoke a typical reaction". He believes that the use of *for* in a causal sense has probably been extended from its original spatial sense of frontness and destination, which refer to directionality. Whether this truly is the case remains unclear, since no similar examples were found in the BNC. Therefore it can be stated that this kind of use of the preposition *through* would be rare.

8. Conclusion

In this study I concentrated on a topic which is widely discussed by different grammarians. The concept of complementation is, however, not a simple field of linguistics and therefore one can consider the help that different electronic corpora nowadays may bring, almost indispensable. The analytical part of this thesis was for that reason also carried out as a corpus-based research. In the first chapter I briefly introduced the benefits of this kind of study and also the versatility of the British National Corpus. The aim of this thesis was to examine the prepositional complements of the verb *die*. The first task was to find out what prepositions can supplement this verb and form a complement phrase. After that I could move on to study the questions of what is special about these prepositions, what kind of semantical differences can be detected in their use and is it possible to find consistencies when considering the choice of the preposition.

In the more theoretical part of my thesis I examined the verb *die* with the help of the *OED* and other grammar books. It could be noticed that these books list various different constructions in which this verb can be used, but only a minority of them concentrated on its prepositional complements from a semantic point of view. Also the problem of making the distinction between a complement and an adjunct came up at this point and therefore it was necessary to approach it with the methods of Huddleston (1988) and Somers (1978). They enabled the separation that had to be made in order to be able to discard the cases with an adjunct.

After that I turned to examine the individual prepositions of, from, with, through, by and for that occur in complement constructions with die. I was able to detect these prepositions with the help of the BNC's random sample. In chapter 6 I approached the topic of prepositions first from a more general point of view and then focused to present the prototypical senses of the six prepositions individually. At this point I also wanted to bring up Radden's (1985) views on the extended meanings of causality that certain prepositions have. His theory was helpful in many points, although it could not be applied to every single problem case.

In the empirical part of my study I focused on examining the prepositional complementation patterns of *die* with the help of additional searches from the BNC. I divided the contexts in which the prepositions occur into meaning groups, which were: (1) diseases/illnesses, (2) wounds/injuries, (3) feelings/states of affairs, (4) hunger/thirst/starvation and (5) other. The BNC data showed that some consistencies can be seen among these complements. For instance with groups 1 and 2 it was detected that the preposition *of* is used more with different diseases whereas *from* was over two times more common than *of* with wounds and injuries. However, the percentages of the prepositions could be used only to detect tendencies, since exceptions were found in most of the groups.

An interesting observation was that all six prepositions were rather commonly used in a figurative sense and these examples represented groups 3 and 5. In these cases the subject of the

sentence was often either animate or inanimate with the prepositions *of*, *from* and *through*, where as the subjects of groups 1, 2 and 4 were always animate. The corpus data also revealed that the preposition *of* is more common when one is talking about feelings or hunger. On the other hand, when the complement was sentential, i.e. was represented by a gerund, also the prepositions *through* and *by* were possible. With the prepositions *with* and *for* there were no sentential complements to be found in the data.

Lastly, Radden's theory of the causality held true in the respect that all the six prepositions that formed complement constructions with *die* appeared in a causal sense. Radden was also of the opinion that e.g. the preposition *of* refers to immediate cause of death and is therefore widely used with diseases. The preposition *from*, on the other hand, relates to immediate cause which could explain the use with wounds and injuries. However, although Radden's theory could be applied to the choice of prepositions to some extent, it alone cannot function as a final rule, since several exceptions were found in the corpus data. But by adding a diachronical perspective to the research it could perhaps be proved that e.g. the use of *by*, *with* and *for* is dying out and they are being replaced by the more common prepositions *of* and *from*. Thus, this hypothesis gives a good foundation for further research in this field of complementation.

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Electronic Corpus:

The British National Corpus (BNC)

Appendix

Statistics from the BNC:

	Amount	0/0
die + of	128	12
die + from	79	7
die + with	3	0,3
die + by	5	0,5
die + through	1	0,1
die + for	1	0,1
Adjuncts	828	75
Phrasal verbs	15	1,4
Invalid cases	40	3,6
TOTAL	1100	100

The random sample of 1100 tokens

	Amount	0/0
1. Diseases/illnesses/maladies	345	69
2. Wounds/injuries	46	9,2
3. Feelings/SOA	45	9
4. Hunger/thirst/starvation	37	7,4
5. Other	26	5,2
Invalid cases	1	0,2
TOTAL	500	100

Die + preposition complement of

	Amount	°/ ₀
1. Diseases/illnesses/maladies	291	58,2
2. Wounds/injuries	123	24,6
3. Feelings/SOA	10	2
4. Hunger/thirst/starvation	20	4
5. Other	47	9,4
Invalid cases	9	1,8
TOTAL	500	100

Die + preposition complement from

	Amount	%
1. Diseases/illnesses/maladies	15	7,5
2. Wounds/injuries	6	3
3. Feelings/SOA	4	2
4. Hunger/thirst/starvation	0	0
5. Other	0	0
Invalid cases	174	87,5
TOTAL	199	100

Die + preposition complement with

	Amount	0/0
1. Diseases/illnesses/maladies	7	32
2. Wounds/injuries	0	0
3. Feelings/SOA	0	0
4. Hunger/thirst/starvation	1	4,5
5. Other	14	63,5
Invalid cases	0	0
TOTAL	22	100

Die + preposition complement through

	Amount	°/ ₀
1. Diseases/illnesses/maladies	1	1,4
2. Wounds/injuries	2	2,7
3. Feelings/SOA	0	0
4. Hunger/thirst/starvation	0	0
5. Other	26	35,1
Invalid cases	45	60,8
TOTAL	74	100

 \overline{Die} + preposition complement by

	Amount	0/0
1. Diseases/illnesses/maladies	0	0
2. Wounds/injuries	0	0
3. Feelings/SOA	0	0
4. Hunger/thirst/starvation	0	0
5. Other	8	2,5
Invalid cases	318	97,5
TOTAL	326	100

Die + preposition complement for