## INVERSION IN WRITTEN AND SPOKEN CONTEMPORARY ENGLISH

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# INVERSION IN WRITTEN AND SPOKEN CONTEMPORARY ENGLISH 

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The Fish-Footman began by producing from under his arm a great letter, nearly as large as himself, and this he handed over to the other, saying, in a solemn tone, 'For the Duchess. An invitation from the Queen to play croquet.' The Frog-Footman repeated, in the same solemn tone, only changing the order of the words a little, 'From the Queen. An invitation for the Duchess to play croquet.'

Alice in Wonderland
Lewis Carroll

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## INTRODUCTION

Over the past few years, full-verb inversion, as one instantiation of a large variety of noncanonical word-order phenomena, has been a favourite topic of research in English linguistics from a functional perspective (cf. Birner 1996; Dorgeloh 1997; Chen 2003; Kreyer 2004 among others). This study is a further contribution to this line of research and attempts to present a comprehensive corpus-based analysis of full-verb inversion in written and spoken Present-day English texts.

Despite the above-mentioned body of research on inversion, there are still aspects which either call for further clarification or have been utterly neglected. For instance, in recent work on inversion, there is not complete agreement as regards the distribution of full inversion in written fictional and non-fictional texts. On the one hand, works such as Green (1982), Denison (1998) or Biber et al. (1999) suggest that the construction is more frequent in fictional texts. On the other hand, studies such as Kreyer (2004) claim the opposite, that is, that full inversion is more common in non-fictional texts. The first aim of this study is to clarify this point. It will be demonstrated that fictional and non-fictional written English texts do not differ in the overall distribution of the construction, but rather in the different types of full inversions used, and the different functions that these inversions serve in both genres.

A second aspect which will be examined in the study is full inversion in the spoken language. Surprisingly enough, inversion in this mode of communication has not yet received the attention it deserves, since most work on the topic has been restricted to the written language. It has often been claimed (cf. Green 1982; Dorgeloh 1997; Chen 2003; Kreyer 2004) that full inversion occurs mainly in written discourse, but these claims have not yet been backed up by a detailed corpus-based analysis. The in-depth analysis of full inversion in the spoken language provided in this study will demonstrate that full inversion also occurs in
the spoken language, and that speech and writing do not differ greatly in the amount of full inversions used, but rather in the different types of full inversions occurring in each of those media and in the functions full inversion serves.

The corpora used to analyse the behaviour and distribution of full inversion in written and spoken texts were the Freiburg-Lancaster-Oslo-Bergen Corpus of British English (FLOB; compilation date: 1991), the Freiburg-Brown Corpus of American English (FROWN; compilation date: 1992), the International Corpus of English: the British Component (ICEGB; compilation date: 1990-1993), and the Corpus of Spoken Professional American English (CSPAE; compilation date: 1994-1998). The analysis of the corpora has been performed manually in some cases, and with automated searching systems in other cases.

The study is organised as follows. Chapter 1 contains some theoretical preliminaries. Section 1.1 provides a definition of the term "full-verb inversion", section 1.2 offers an account of inversion types excluded from the analysis, section 1.3 presents a classification of the construction based on formal criteria, and section 1.4 examines several constructions exhibiting similarities to full-verb inversion, but fall nevertheless beyond the scope of the analysis.

Chapter 2 reviews the literature on English full-verb inversion and outlines the motivations for the present study. Though the review covers generative accounts of inversion (cf. 2.1), the main focus is on analyses carried out within a functional framework (cf. 2.2). Among these, special attention is paid to Dorgeloh (1997), Chen (2003), and Kreyer (2004), which are analysed in 2.3., 2.4 , and 2.5 respectively as they are the most comprehensive studies of full inversion to date.

Chapter 3 is devoted to the corpus-based analysis. It first provides a general description of the corpora (cf. 3.1 and 3.2), the sampling techniques (cf. 3.3), and the methodology used (cf. 3.4).

After these preliminaries, the core of the analysis is developed in chapter 4, which offers an in-depth analysis of the distribution and behaviour of full-verb inversion in written and spoken Present-day English. Section 4.1 concentrates on the analysis of the data retrieved from the written corpora, whereas 4.2 discusses the results retrieved from the spoken corpora.

Chapter 5 contains a summary and the main conclusions reached in this investigation.
Finally, Appendices I, II, and III contain the database and a more detailed description of the samples analysed in the computerised corpora.

## 1. FULL-VERB INVERSION IN PRESENT-DAY ENGLISH: A PRELIMINARY ACCOUNT

The term inversion has been used to refer to different, although related, constructions in the literature on the topic. As a consequence, inversion has been understood very broadly. Green (1982: 120), for instance, defines inversions as "those declarative constructions where the subject follows part or all of its verb phrase". ${ }^{1}$ As will be pointed out in section 1.1, this study concerns itself with a more restricted view of inversion; in particular, the focus will be on a specific type of inversion, namely so-called full-verb inversion. Section 1.2 offers an account of inversions which have been excluded from the present analysis, for reasons which will become clear later. After these preliminaries, 1.3 provides a formal classification of full-verb inversion types. Finally, section 1.4 briefly examines constructions such as existential-'there', left-dislocation, preposing, and equative structures, which are close to full-verb inversion from a syntactic and pragmatic point of view, but nevertheless differ sufficiently as to be beyond the scope of this dissertation.

### 1.1 DEFINITION

As will become clear in chapter 2, there is an abundant literature on the topic of inversion. In the case of English in particular, different taxonomies have been proposed for the construction. According to the surface structure of the verb phrase, most studies on English inverted constructions base their classifications on the preliminary distinction between two main types of inversion: full-verb inversion (cf. Birner 1996; Chen 2003; Kreyer 2004) and subject-operator inversion (cf. Quirk et al. 1985; König 1988). Both categories have received

[^0]a host of different names. Thus, Huddleston and Pullum (2002) rename full-verb inversion as subject-dependent inversion, whereas Quirk et al. (1985) and Biber et al. (1999) label it subject-verb inversion, and Green (1985) and Stein (1995) speak of inversion-over-verb and Type-A inversion, respectively. Likewise, Huddleston and Pullum (2002) speak of subjectauxiliary inversion or partial inversion instead of subject-operator inversion, while Green (1985) refers to inversion-over-auxiliary and Stein (1995) to Type-B inversion. This heterogeneity is indicative of the numerous ways of classifying inversion in research on Present-day English.

Full-verb inversion, henceforth full inversion, which is the concern of this study, occurs when the grammatical subject follows the entire verb phrase, in other words, "the subject occurs in postposed position while some other dependent of the verb is preposed" (Huddleston and Pullum 2002: 1385), as illustrated in (1). It is therefore distinguished from subject-operator inversion, which refers to those syntactic structures in which "the subject is preceded by the operator rather than by the main verb or a full verb phrase" (Biber et al. 1999: 911), as shown in (2).
(1) Beside him was a table crammed with refreshments and medicaments.
(FLOB, press reportage. A26)
(2) Nor does he enjoy the arduous process of learning complex new words.
(FLOB, press reportage. A26)

### 1.2 TYPES OF INVERSION EXCLUDED FROM THE ANALYSIS

For methodological reasons, inversions which do not meet the definition given in the previous section have been excluded from the analysis. The scope of this research is the analysis of verb-second constructions, that is, inversions in which the verb is placed in second position within the clause and is followed by the subject (cf. 3). Hence, cases of verb-first
constructions, that is, inversions in which the verb is the first syntactic constituent in the clause (cf. 4), have been left out.
(3) Among his patients was Mrs Ann Thwaytes, who had inherited pounds 500,000 on her husband's death.
(FLOB, Belles-lettres, Biographies, Essays. G01)
(4) Were it not for my help, they would not have made it.
(FLOB, Belles-lettres, Biographies, Essays. G01)

The rest of this section gives an account of the major types of inversion excluded from the corpus results, namely subject-operator inversion (cf. 1.2.1), inversion in conditional clauses and in formulaic expressions (cf. 1.2.2), inversion in exclamative and interrogative clauses (cf. 1.2.3), inversion after a negated verb, inversion with temporal phrases, inversion in appended clauses (cf. 1.2.4), and quotation inversion (cf. 1.2.5). ${ }^{2}$

### 1.2.1 SUBJECT-OPERATOR INVERSION

As has already been mentioned, the term subject-operator inversion denotes those constructions in which the subject follows the operator of the verb phrase. In particular, it includes inversions in which the clause-initial constituent is a pro-form (5), a correlative construction (6), an additive adverb (7), ${ }^{3}$ or a negative or restrictive adverb (8). ${ }^{4}$
(5) All went well while the price of land went up, but when the world changed and the price of land went down, so did the price of the pictures change.
(FROWN, press reportage. A26)

[^1](6) Nehru also harboured a protectionist obsession even more paranoically than does the troubling new woman prime minister of France.
(FLOB, press editorial. B12)
(7) Peggy, I soon discovered, did not have much energy; she was having an affair with a labor writer named Ben Stolberg, and both of them would lie on a sofa or daybed in her living-room, too tired to do anything, apparently too tired to go to bed and make love. Nor can I remember her ever cooking a meal.
(FROWN, Belles-lettres, Biographies, Essays. G51)
(8) Not until April 29 did Wilson consult his Inner Cabinet for their opinions (...).
(FLOB, press editorial. B05)

It could be argued that the use of syntactic criteria is not particularly relevant for the distinction of full and subject-operator inversion given that both constructions share an important feature: the verb phrase or some part of it is preceded by some element other than the subject in clause-initial position. Nevertheless, from a syntactic perspective, there are also important differences between both types of inversion. Firstly, as already stated, the position of the subject relative to the verb phrase differs in full and subject-operator inversion. Secondly, full inversion takes place with copular verb be or with lexical verbs which are most often intransitive (cf. 9). By contrast, subject-operator inversion can occur with both transitive and intransitive verbs (cf. 8).
(9) Down will come the barriers, the customs posts which, to those in our islands have been a curiosity.
(FLOB, press editorial. B26)

Finally, the kinds of opening elements occurring in full inversion are much more diverse than those in subject-operator inversion, which is syntactically obligatory when certain elements occur in clause-initial position. Full and subject-operator inversion are considered marked constructions in Present-day English and are alternatives to the basic SVO word-order, but the
way in which they behave syntactically differs substantially and syntax is, therefore, an appropriate criterion for keeping them apart.

### 1.2.2 INVERSION IN CONDITIONAL CLAUSES AND FORMULAIC EXPRESSIONS

In relatively formal style or expository registers, conditional clauses may be coded by the inversion of verb and subject, without using the subordinator if. Inversion in this kind of clauses most commonly occurs with the operator had (10), although it may also occur with subjunctive were (4), with should (11), and more rarely with could or might (12). Inverted conditionals have been declining in frequency for some time, and are almost wholly restricted to formal literary English (cf. Denison 1998: 3.6.6.3).
(10) People seek these meetings because they need them, and had I not stumbled into mine in Colorado, I would have been a lesser man.
(FROWN, Belles-lettres, Biographies, Essays. G39)
(11) Should there be any opposition, they would not go ahead with the plan.
[quoted from Huddleston and Pullum, 2002: 921]
(12) Might / Could I see my native land, I would die a happy man.
(FROWN, Belles-lettres, Biographies, Essays. G39)

Inversion in conditional clauses has some points in common with inverted constructions with the auxiliary may. These structures are also typically found in formal or archaic contexts, as illustrated in (13)-(15), where may is placed in clause-initial position in order to express a series of wishes.
(13) May the road rise to meet you.
(14) May the rain fall soft upon your fields.
(15) Until we meet again, may God hold you in the palm of His hand.

In English, the use of inversion with formulaic expressions is largely restricted to formal registers but, as shown in (16), it may also occur marginally in informal contexts.
(16) Long live Rock and Roll!
(FROWN, adventure and western. N23)

### 1.2.3 INVERSION IN INTERROGATIVE AND EXCLAMATIVE CLAUSES

The present research is limited to inversion in declarative clauses. Inversion in both independent and dependent interrogative clauses is therefore beyond the scope of this study. Independent interrogatives trigger verb-subject inversion (17). Dependent-interrogative clauses, by contrast, are normally followed by SVO word-order (cf. 18), yet they may also occur with inversion of subject and verb in informal registers, as can be seen in (19) below. The SVO word-order is most commonly found in conversation, and is always optional in contrast to the mandatory use of inversion in independent interrogative clauses such as whquestions (20) or yes/no questions (21).
(17) Was it a bomb? Was contraband inside?
(FLOB, press reportage. A13)
(18) I forgot to ask you what was in the chamber.
(Alice in Wonderland, Lewis Carroll)
(19) Sarah said would we like her cake.
(20) What does Bush stand for? What does he believe in?
(FROWN, press reportage. A10)
(21) Is it Thursday today? No, Friday.
[quoted from Biber et al., 1999: 206]

Exclamatory inversion occurs chiefly in conversation and fictional discourse (22a). The uninverted exclamative construction (cf. 22b) is, nevertheless, much more common and
inversion is, in any case, always "optional after a non-subject exclamative phrase in prenuclear position" (Huddleston and Pullum, 2002: 95).
(22) a. What a goal did he score!
b. What a goal he scored!

### 1.2.4 ADDITIONAL TYPES OF INVERSION EXCLUDED

Also excluded from the present analysis are inversion in negative clauses (23), inversion with implied temporal phrases (24) and inversion in appended clauses (25).
(23) Didn't nobody teach me this.
[quoted from Green, 1982: 128]
(24) Came a terrific flash of lightning and clap of thunder. Finklestein looked up to the heavens protesting, "I was only asking!"
[quoted from Green, 1982: 140]
(25) a. He's a complete idiot, is John.
b. He's a complete idiot, John is.
[quoted from Quirk et al., 1985: 1310]

Inversion in appended clauses is commonly found in non-standard varieties of English, and is never obligatory (cf. 25b). The construction provides information about the syntactic subject, which is first presented by means of a personal pronoun, and is then specified by a nominal phrase in the appended clause, as exemplified in (25a).

### 1.2.5 QUOTATION OR JOURNALISTIC STYLE INVERSION

Quotation inversion involves the preposing of a quotation which functions as the object of the clause, as illustrated in (26b) below. From a formal point of view, this type of inversion satisfies the definition of full inversion in 1.1, that is, the subject occurs in postposed position while some other dependent of the verb is preposed. Though basic SVO word-order is also possible (cf. 26a), inversion is frequently used in quotes occurring in intermediate or final
position after a direct speech clause, as in (26b). Some grammars of Present-day English (cf. Quirk et al. 1985: 881, among others) consider quotation inversions with a postposed personal pronoun in subject function, as in (27), ungrammatical. Yet quotations of this kind can be found in English fiction.
(26) a. "We always thought Perot getting in would throw all the cards up in the air and cause people to take a new look at the race," Charles black, senior advisor of Bush's campaign says.
b. "We always thought Perot getting in would throw all the cards up in the air and cause people to take a new look at the race," says Charles black, senior advisor of Bush's campaign.
(FROWN, press reportage. A06)
(27) *"We may all be famous, then" said he.

Quotation inversion is a well-known feature of journalistic language and fiction. In fact, as argued by Schmidt (1980), it could be appropriately labelled journalistic style inversion. This is also the point of view of Biber et al. (1999: 923), which claim that the phenomenon is marginal in other genres. As is the case with full inversion, journalistic style inversion places the subject in clause-final position, which accordingly receives additional emphasis and greater communicative effect. Although quotation or journalistic style inversion fits the definition of full inversion followed in this study, it has been excluded on various grounds. Firstly, quotation inversion is a fairly stereotypical construction in English. In other words, the direct object always represents the quotation. Secondly, the verbs occurring in this type of structure are only verbs of sayings. Finally, quotation inversion shows a high degree of variability in word-order. This means that in addition to the object-verb-subject pattern illustrated in (28), further combinations such as VSO, OSV, OVS, OSVO and OVSO may also be found (see Collins and Branigan 1997 for details). The aforementioned characteristics of quotation inversion clearly distinguish it from full inversion. It seems therefore reasonable
to treat quotation inversion as a separate category in its own right and consequently exclude it from the analysis.
(28) "There must be thousands of people in Britain who given some encouragement, would love to share in the fun of owing winners," explained Pipes. (FLOB, press reportage. A23)

### 1.3 A CLASSIFICATION OF FULL INVERSION BASED ON FORMAL CRITERIA

This section provides a syntactic classification of full inversion, that is, those cases of inversion where a functional constituent other than the subject, is placed preverbally whereas the subject is placed postverbally. On the basis of the kind of phrasal category occurring as clause-initial constituent, six different types of full inversion can be distinguished:
I. Adverb phrase inversion. Adverb phrase inversion occurs when the clause-initial constituent, followed by the inversion of verb and subject, is an adverb or an adverb phrase, as exemplified in (29) and (30) respectively.
(29) (...) and therein lie the reasons for Clinton's confidence that he can stave off any Bush comeback.
(FROWN, press reportage. A06)
(30) Every now and then whined a fly and was sucked into the past with dizzy speed.
(FLOB, general fiction. K02)

Birner (1996: 45) classifies preposed locative and directional adverbs like then and here as prepositional phrase inversion. The present analysis differs from Birner's and treats them as adverb phrase inversion. Similarly, Dorgeloh (1997) excludes correlative elements and anaphoric or additive adverbs such as nor, neither, thus and so from this type of full inversion and classifies them as subject-auxiliary inversion, even in cases where no auxiliary is present, as in (31)-(32).
(31) So begins her collapse into enslavement to forms.
(FROWN, science. J65)
(32) Thus began the inflation of the presidential function.
(FROWN, press editorial. B20)
(33) So great is the apathy that the Government could probably go in or out. [quoted from Dorgeloh, 1997: 27]

Dorgeloh's main line of argumentation is that:
Pro-forms and correlative connectives are primarily grammatical devices, which perform a linkage of clauses, and they have mainly anaphoric or cataphoric meaning. This is why they constitute a clearly separate class of full inversion constructions.
(ibid: 90)
The conclusion is reached that examples such as (31) and (33), when following an additive adverb, a pro-form or a correlative element, can be considered instances of subject-auxiliary inversion because of the pragmatic-connective meaning they convey. This pragmatic criterion is, however, not consistent with the criteria established in this research for the classification of inversions. As already pointed out (cf. 1.1), the preliminary division of inversion into two broad categories, namely full and subjectoperator inversion, is based exclusively on syntactic criteria. Though there is no doubt about the linking function of the inversions preceded by pro-form and correlative adverbs, they are difficult to classify as subject-auxiliary instances when they do not contain an auxiliary. Further, according to other scholars (cf. Birner 1996; Chen 2003; Kreyer 2004, among others), the linking function of inversion is not an exclusive feature of subject-auxiliary inversion and can also be performed by full inversion. As will be more fully discussed later in this research, the canonical word-order variant of (31), for instance, would be her collapse into enslavement to forms begins so, where so means in this way. Such a word-order pattern is infelicitous, even though it is not ungrammatical. Since so is anaphoric to something in the immediately prior discourse
or situational context, it is always more familiar than the postverbal noun phrase. As will be explained in due course (cf. 2.2.2), so serves a linking function and full inversion seems the natural way to present this proposition (cf. Birner 1996). The same holds for thus, which could replace so in (31) with the same meanings and results, that is, a felicitous full inversion, and a less common canonical variant.

It could be argued, however, that examples such as (33) above should be treated as subject-operator inversion due to the presence of be which performs an "operational function" (cf. Quirk et al. 1985: 80). The distinction between operator and predication, as two subdivisions of the predicate, has been considered an important division in accounting for the relation between different sentence types. As Quirk et al. (1985: 79) put it, "the operator can be defined as the first or only auxiliary", as illustrated in (34) or (35) below. The operator is mainly found in interrogative or negative clauses, although it may occur in emphatic declaratives as well (cf. 36).
(34) He might have been being questioned by the police.

OPERATOR
(35) Has he given the girl an apple?

OPERATOR PREDICATION
[quoted from Quirk et al., 1985: 79]
(36) I do find policemen look younger. OPERATOR PREDICATION

The definition of the operator as the first auxiliary raises, nevertheless, an important question: what happens if the corresponding positive declarative contains be or have,
as main verbs? Consider example (33), repeated and reversed here into SVO order for convenience.
(33) a. So great is the apathy that the government could probably go in or out.
b. The apathy is so great that the government could probably go in or out.
c. Is the apathy so great that the government could probably go in or out?
d. The apathy is not so great that the government could probably go in or out.

The role of operator can therefore be realised by copular be (cf. 33), and less commonly, by transitive have (cf. 37), functioning as main verbs. In such cases, though the verb has operator behaviour, it is also the main or head verb of the clause and, when it occurs in an inverted construction, it seems reasonable to consider it an instance of full inversion. ${ }^{5}$ Pro-forms and additive adverbs (cf. 38) followed by the inversion of the subject and the main verb of the clause will therefore be regarded as instances of adverb phrase inversion in this dissertation. Full inversions following correlative connectives, as in (33) above, will however be classified in the subordinator inversion type to be discussed in section VI.
(37) John has a nice car and so does/has Peter.
(38) Conservative efforts in 1990 to temper the effects of the poll tax and to slow down the implementation of NHS reform are evidence for the robustness of the Downsian median. So are the strenuous efforts of Neil Kinnock to lead the Labour Party to it.

[^2]II. Adjective phrase inversion. Adjective phrase inversion involves full inversion following a preposed adjective phrase, as can be seen in (39)-(42).
(39) Prominent among inversions is full inversion.
(40) Most influential are the acquisitive pressures on the younger generations.
(FLOB, science. J28)
(41) More significant was the realisation that Singapore has, since the late 1970s, lost the 'competitive edge' in manufacturing.
(FLOB, science. J42)
(42) Also important to our construction of the map will be a decomposition of the formula into three domains determined by its coordinates.
(FROWN, science. J20)
III. Prepositional phrase inversion. In prepositional phrase inversion a prepositional phrase is placed clause-initially in a position typically occupied by the grammatical subject, as illustrated in (43)-(45). This full inversion type may also occur with a clause-initial adverb before the prepositional phrase; witness (46) below. As noted by Birner (1996: 109), most instances of prepositional phrase inversion occur with a verb other than $b e$.
(43) Among them was the seriously injured driver of the Sprinter, Steve Carpenter, 36, of Fratton, Portsmouth, who was trapped in the wreckage of his cab.
(FLOB, press reportage. A24)
(44) Between the summits of Bachian polyphony and Beethovenian symphonism came Papa Haydn and the infant Mozart.
(FLOB, press reportage. A26)
(45) From these long neglected circles came the unmistakable sounds of success.
(FLOB, Belles-lettres, Biographies, Essays. G54)
(46) Off to the United Nation forces goes a load of 1,000lb bombs.
(LOB, press editorial. B13)
IV. Noun phrase inversion. Noun phrase inversion refers to those inverted constructions in which the clause-initial constituent is a noun phrase. This type presents some problems of analysis because the surface sequence noun phrase + be + noun phrase may represent either an identificational (cf. 1.4.4) or an ascriptive structure. This fact is also noted in Dorgeloh (1997), who does not include nominal inversion in her classificatory system since in her view "the $N P$-inversion types remain difficult to analyse into subject and complement, which is why it has been excluded from the corpus analysis" (ibid: 26). By contrast, noun phrase inversion has been included in this research given that, as Birner (1996: 42) acknowledges, "the non-occurrence of NP inversion would represent an inexplicable gap in the paradigm". However, since, as illustrated in (47a) and (47b), equative or identificational constructions are by definition reversible (cf. Huddleston and Pullum, 2002: 268), they have been excluded from the analysis (cf. 1.4.4). It thus follows that this corpus-based study will only consider noun phrase inversion those instances of full inversion in which an ascriptive reading is possible (cf. Quirk et al. 1985: 742): that is, those cases where the clauseinitial noun phrase is introduced by a non-referential indefinite article (cf. 48), or is a non-referential plural form as illustrated in (49).
(47) a. the only figure within our view is the Chancery Bar. b. the Chancery Bar is the only figure within our view. (FLOB, Belles-lettres, Biographies, Essays. G01)
(48) A short distance past Perry Oaks Farm, on the western side of what was Title Barn Lane, was (and still is) the Perry Oaks sludge disposal works.
(FLOB, Belles-lettres, Biographies, Essays. G51)
(49) [...] and bridesmaids were Miss Pat Dawson of Austin, [...].
[quoted from Dorgeloh, 1997: 26]
V. Verb phrase inversion. In verb phrase inversion, also known as part-inversion (from "participle"; cf. Kreyer 2004), the clause-initial constituent is a present or past participle form, or an adverb followed by a present or past participle form. Examples are given in (50)-(54) below.
(50) Gathered together are paintings that reveal his interest in linguistics and appropriation of previously existing imagery.
(FROWN, press reportage. A38)
(51) Standing in for the bureau chief of Worldwide Television News was his first foreign assignment.
(FLOB, press reportage. A27)
(52) Supporting those who argue that Bush was pro-choice are the President's one-time affiliation with Planned Parenthood, his erstwhile championing of family planning and his tendency to eschew social conservatism in Pre-Reagan days.
(FROWN, press editorial. B12)
(53) Interwoven with the songs are snatches of movie dialogue that offer the spoken equivalent of the music.
(FROWN, press review. C10)
(54) Thus entrusted with carrying out the plan was the director of the Military Academy, Col. Guillermo Alfredo Benavides.
(FROWN, Belles-lettres, Biographies, Essays. G06)

It could be argued that this type of inversion qualifies as verb-first word-order (VSO), and should accordingly be excluded from the analysis. Nevertheless, as will be seen, this very much depends on the syntactic analysis adopted. As illustrated above, fronting of -ed participles and -ing participles is accompanied by the inversion of the subject. Nevertheless, there are many adjectives ending in the same suffixes as participles in -ing or -ed. These are the so-called participial adjectives, which are often difficult to distinguish from -ed and -ing participles. For instance, the progressive form of the verb (be + verb-ing), as in is working, is superficially identical
in form to the copula followed by a predicative adjective (e.g. is surprising). According to Huddleston and Pullum (2002: 78), the central idea in the traditional concept of a participle is that "it is a word formed from a verb base which functions as or like an adjective". This formulation, in my opinion, is non-committal as to whether the word is in fact a verb or an adjective. Participles, in this sense, shade off into adjectives, which makes it difficult to draw a clear-cut borderline between them. Broadly speaking, adjectives are defined by their morphological, syntactic, and semantic characteristics. Morphologically, many adjectives can be inflected for comparison. Syntactically, adjectives occur as the head in adjective phrases and can serve both attributive and predicative roles. From a semantic perspective, most adjectives describe qualities of people, things, and states of affairs, although some serve also as classifiers, or have an identifying or intensifying meaning. Participial adjectives vary greatly in the extent to which they possess all the defining features of adjectives summarised above and, for this reason, are often difficult to distinguish from participles. It is widely recognised that the verbal force of the participle is explicit for the -ing form when a direct object is present, and for the -ed form when an agentive by-phrase is present, as in (55) and (56) respectively.
(55) You are frightening the children.
[quoted from Quirk et al, 1985: 414]
(56) He is appreciated by his students.
[quoted from Quirk et al, 1985: 414]

On the other hand, when the apparent participle lacks a corresponding verb (cf. 57), or the -ing or -ed forms are preceded by a degree adverb such as very, so, and too, they are not considered participles but adjectives, as in (58) below. In the absence of any of these explicit indicators, the status of the -ing or -ed form can be indeterminate, and
difficult to classify either as a verb or an adjective. See Quirk et al. (1985: 413ff) and Biber et al. (1999: 906ff) for details.
(57) The results were unexpected. *To unexpect.
[quoted from Quirk et al, 1985: 413]
(58) He was too frightened to move.
[quoted from Huddleston and Pullum, 2002: 79]

In the same way, there is no real consensus in the literature on the grammatical status of the verb be in this kind of syntactic constructions. To briefly illustrate this issue, it seems worth referring to examples (59a) and (59b) below. A widespread view is to consider that the constituent is reading forms a syntactic unit where the auxiliary is depends on the lexical verb reading, which is the head of the verb phrase (cf.59a). By contrast, other scholars (cf. Huddleston and Pullum, 2002: 104) suggest a different approach based on the nature of auxiliaries as verbs that take non-finite complements. According to them, reading the newspaper is regarded as a non-finite complement of the verb is (cf. 59b). Following this approach, inverted structures of this kind are clear instances of verb-second position (cf. 59c) given that the grammatical subject John Kerry is displaced out of its unmarked position, which is now occupied by the constituent reading the newspaper, which precedes the verb is.
(59) a. John Kerry is reading the newspaper.
b. John Kerry is reading the newspaper.
c. Reading the newspaper is John Kerry.
VI. Subordinator inversion. In subordinator inversion, the clause-initial constituent is a subordinating conjunction. This involves, among others, full inversions preceded by
comparative clauses introduced by than (cf. 60), and full inversions in adverbial clauses introduced by as (61)-(63), or correlative constructions as in (64)-(65). ${ }^{6}$
(60) The lectionary is closer to the mainstream of Anglo-Saxon art than is the Troper.
(FLOB, science, J67)
(61) The nominal suffix is invariant, as is the verbal suffix in Barbare.
(FROWN, science, J35)
(62) The whole effect was quite beautiful, as was the backdrop on the stage.
(FLOB, romance and love story, P05)
(63) As important as the quality of information is its timeliness.
(FROWN, science, J40)
(64) Not only was he one of the most passionate and bellicose rebels of his age, but he was also far from being the perfect Englishman.
(FROWN, science, J58)
(65) Such were the practical results of the commissioner's efforts to impose a scheme that no one in the locality had wanted.
(FLOB, science, J37)

## 1. 4 SOME STRUCTURAL PATTERNS RELATED TO FULL INVERSION

Present-day English is a clear example of Subject-Verb-Object basic word-order (SVO), for which, however, there is a limited set of syntactic alternatives. These constructions, among which full inversion can be classified, are often referred to as allosentences (cf. Downing and Locke 1992, and Lambrecht 1994, among others), and can be defined as different syntactic or thematic options for arranging the same propositional information. All of them have the same propositional meaning but not the same communicative function. The appropriateness of these alternative structures can be tested by their insertion in a text, where it is proved that not all alternatives are viable. Allosentences thus differ from SVO word-order both in terms of their

[^3]syntactic structure and in the way in which they present information into the discourse, as illustrated in Table 1.

Table 1. Allosentences in Present-day English

| ALLOSENTENCE | EXAMPLE | BASIC SVO WORD-ORDER |
| :---: | :---: | :---: |
| Fronting | The garbage I took out. | I took out the garbage. |
| Postponement | A man carrying a dog appeared. | A man appeared carrying a dog. |
| Left-dislocation | Politicians, they are always arguing. | Politicians are always arguing. |
| Right-dislocation | I saw them near the cinema, Peter <br> and John. | I saw Peter and John near <br> the cinema. |
| Existential-‘there’ | There is a rabbit in the hole. | A rabbit is in the hole. |
| Extraposition | It annoyed me that you did not <br> come to my party. | That you did not come to my party <br> annoyed me. |
| Pseudo-cleft | What we all need is a holiday. | We all need a holiday. |
| Cleft | It is your health that you should be <br> worrying about. | You should be worrying about your <br> health. |
| Passive | The cake was eaten by John. | John ate the cake. |

Full inversion differs from the above-mentioned allosentences, with the exception of postposition, in that it has to do with the order relative to each other of the major constituents of the clause, namely subject and verb. The movement of these constituents conveys a special pragmatic effect which cannot be expressed with other syntactic variants such as passives, cleft-constructions, existential-'there', etc.

The remainder of this chapter will be devoted to a brief examination of the allosentences closer to full inversion from a syntactic and pragmatic perspective. Sections 1.4.1 and 1.4 .2 briefly review the syntactic and pragmatic similarities of full inversion, existential-'there’ and preposing. Section 1.4.3 summarises left-dislocation. Lastly, section 1.4.4 offers a short discussion on equative structures.

### 1.4.1 EXISTENTIAL-‘THERE’

The term existential-'there' refers to those cases in which expletive there occurs immediately in front of the verb phrase. As exemplified in (66), the structure of a clause with existential'there' is thus made up of unstressed or dummy there, which represents the grammatical subject, and is followed by the verb, most commonly be, and a noun phrase. The noun phrase, which may contain a wide variety of modifiers or be followed by an adjunct of time or place, is the postposed notional subject and is typically indefinite (cf. 66) since it introduces new information into the discourse.
(66) There is a generous way of reading Daisy's character and conduct, and there is a suspicious way.
(FLOB, Belles-lettres, Biographies, Essays. G41)

Several studies on inversion, based on syntactic and pragmatic criteria, treat existential-'there' as a particular type of inversion (cf. Hartvigson and Jakobsen 1974 or Penhallurick 1984). From a syntactic point of view, they argue that both existential-'there' and full inversion displace the subject from its unmarked preverbal position, as shown in (67) and (68). Some analyses even consider that existential-'there' and full inversion "differ solely in the presence or absence of there" (Penhallurick, 1984: 48).
(67) There was a storm last night. Existential- 'there'

V S
(68) And there is Mary with his oldest son looking at us. Full inversion V S

Pragmatically speaking, the argument is that existential-'there' shares with full inversion an information packaging function (cf. 2.2.2). Both are "means of securing the basic distribution of Communicative Dynamism" (cf. Hartvigson and Jakobsen 1974: 62). The term communicative dynamism is a fundamental concept of the Prague School theory of linguistics
whereby an utterance is seen as a process of gradually unfolding meaning from low information value - old information - to high information value - new information (cf. Firbas 1962, 1964, 1966, 1971, 1972). As will be discussed in 2.2.2, in discourse analysis there is one notion of givenness according to which old information is considered as information the addressor presents as being recoverable by the addressee, either from what has been said before - the linguistic co-text - or because it can be taken as known or old information from the context of situation. New information, by contrast, is related to whatever information the addressor presents as not recoverable by the addressee from the co-text or the context. With this in mind, existential-'there' may therefore be considered a presentative device whose function is to move the indefinite subject to a position following the verb, and present a new element on the scene, as illustrated in (69) below. This pragmatic function is also characteristic of full inversion (cf. 2.3 and 2.4). The link between both structures is best proved by the fact that existential- 'there' can be combined with certain types of full inversion, as shown in (70). Bolinger (1977: 93) in fact regards both constructions as presentative but argues that full inversion "presents something on the immediate stage" while existential'there' "presents something to our minds". This means that full inversion is regarded as bringing something literally before the addressee's presence, whereas existential-'there' brings something to the addressee's consciousness.
(69) There is a man at the door.
(70) a. At the end of the road is a new hotel.
b. At the end of the road there is a new hotel.

Despite the aforementioned syntactic and pragmatic similarities, full inversion and existential-'there' are considered different constructions in this investigation. Existential'there' could, in a sense, be considered a first step towards full inversion since, as noted
above, there are obvious syntactic and pragmatic connections. Nevertheless, there are also abundant criteria to tell both constructions apart. Firstly, existential-'there' makes use of unstressed or dummy there (cf. 71) whereas full inversion is introduced by locative or deictic there (cf. 72). Dummy there and existential-'there' behave quite differently. Existential-there is a function word, whereas locative there is a demonstrative adverb contrasting with here, and has deictic and anaphoric uses, that is, linking and referential functions. The locative meaning of dummy there, by contrast, has been bleached. Reanalysed as a pronoun, it no longer conveys deictic reference. Secondly, dummy there functions as a grammatical subject rather than as an adverbial, and may, in fact, combine with locative there in the same clause (cf. 73). In this sense, dummy there is simply the marker of a grammatical construction, serving to fill the subject position while the element that would be subject in the SVO wordorder version is displaced to postverbal position.
(71) There seems to be an irresistible tug of nostalgia.
(FLOB, press review. C11)
(72) (...) and there was my hat in the wastepaper basket.
(FROWN, Belles-lettres, Biographies, Essays. G62)
(73) There is a strange figure to see there.

| Unstressed | Stressed |
| :---: | :---: |
| Pronoun | Adverb |
| rammatical subject | Complement |
| Dummy there | Locative there |

Thirdly, the clear split between existential-'there' and full inversion is also reflected phonologically. As made clear by Huddleston and Pullum (2002: 1391), "dummy there can never be focus due to its lack of semantic content. Locative there, by contrast, always retains its full vowel and can occur as focus". In other words, a useful criterion to distinguish existential- 'there' and full inversion is intonation. When used in full inversion, locative there
is normally stressed and presents new information into the discourse, as can be seen in (74). On the other hand, the dummy there found in existential- 'there' constructions is always unstressed, and can only refer back to whatever has been established as the relevant reference in the previous co-text. An example is provided in (75).
(74) THERE were the castles he told us about.
(75) He told us he saw supernatural beings but there are no fairies in the forest.

Finally, there are also pragmatic divergences between existential-'there' constructions and full inversion. It is generally said that existential- 'there' is used to present or introduce a new element into the discourse (cf. 76), and it has already been suggested that this is a pragmatic function full inversion also shares (cf. 2.3 and 2.4). Nevertheless, existential-'there' may also serve the pragmatic function of expressing propositions concerning existence or the occurrence of events, happenings, or states of affairs, as in (77).
(76) There entered a bear in the cave.
(77) Once upon a time there were three bears.
[quoted from Biber et al., 1999: 951]

The syntactic and pragmatic differences between existential- 'there' and full inversion outlined so far allow us to treat both constructions separately. Examples such as (76) and (77) have not been considered full inversion constructions in this research. Only verb-subject order preceded by deictic there has therefore been treated as a full inversion instance in this corpusbased study.

### 1.4.2 PREPOSING

Preposing refers to "the initial clause placement of core elements, i.e. preposition, noun, verb, and adjective phrases, which are normally placed in post-verbal position" (Biber et al. 1999: 900). This means that preposing is a construction in which a complement, whose position is internal to the predicate, occurs in front position, preceding the nucleus of the clause, as illustrated in (78).
(78) Three coins of gold I found yesterday.

Syntactically, preposing can be considered a first step towards full inversion (cf. Hartvigson and Jakobsen 1974), since both constructions share the fronting of a constituent that would canonically be placed in a position following the verb. Nevertheless, as distinct from full inversion, in preposing the marked clause-initial placement does not imply the inversion of subject and verb, as shown in (79)-(80). Besides, while full inversion is mainly restricted to intransitive verbs, preposing may occur with any kind of verbs.
(79) $\frac{\text { Seafood }}{\mathrm{O}} \frac{\text { the waiter }}{\mathrm{S}} \frac{\text { brought. Preposing. }}{\mathrm{V}}$.

## (80) On the west facade were two knights. Full inversion. $\begin{array}{lll}\mathrm{C} & \mathrm{V} & \mathrm{S}\end{array}$

From the point of view of pragmatics, full inversion and preposing share several discourse functions. This is mainly a consequence of the similar way in which they exploit the initial position of the clause. Preposing, as does full inversion (cf. 2.2.2), may serve to place discourse-old information in clause-initial position (cf. 81), matching the principle of communicative dynamism. This principle relates to the principle of end-focus whereby the message normally starts with old information and progresses towards the new (cf. Halliday 1967).

In (81), the preposed constituent this refers anaphorically to the preceding text, Sandy moves ahead, and represents discourse-old information. Preposing, in this sense, shares with full inversion a clause-linking function. Both constructions may be used to link information to prior discourse. This topic continuity function is further exemplified by (82) and (83), where it allows the addressor to organise the flow of information and give cohesion to the discourse.
(82) He reached the gates of the castle that very day. Flanking the gates were low walls. Inversion V S
(83) Andrew made a very good deal yesterday. Thousands of pounds I think he made for the company. Preposing V

In connection with the aforementioned linking function, preposing resembles full inversion in that it may also be used to signal emphasis. Following the principle of end-focus the neutral position for the information focus is towards the end of the clause. Preposing, as full inversion, allows focus to be placed on two constituents in the clause. To briefly illustrate this, it seems worth looking again at (81). In this example, do not understand is given salience because it is the new information introduced in the discourse and is placed in clause-final position. Nevertheless, the fronted constituent this is also given emphasis because it is placed clause-initially out of its unmarked postverbal position. A clear indicator of this constituentfocusing function is that, in speech, this would be stressed.

Preposing and full inversion may both be used for contrastive purposes in discourse, as is the case in (84) with full inversion, and (85), which illustrates preposing:
(84) More surprising is the recollection of his father's memory of calling on the great tragedian one morning.
(FLOB, Belles-lettres, Biographies, Essays. G41)
(85) Some things you forget. Other things you never do.
[quoted from Biber et al., 1999: 900]

What can be concluded from this brief review is that preposing shares many pragmatic functions with full inversion. The most important difference between both constructions is found in the syntactic position of subject and verb within the clause. It seems therefore sensible to assume that preposing is a different syntactic construction in English and must be excluded from the analysis.

### 1.4.3 LEFT-DISLOCATION

Left-dislocation consists of a clause containing a pro-form that refers back to a co-referential noun phrase, as illustrated in (86). Here the left-dislocated noun phrase Matthew has a separate intonation contour signified in writing by a comma, while the anaphoric pronoun he refers back to the dislocated noun phrase.
(86) Matthew, he is the one to be blamed for such bad results.

The construction is confined almost exclusively to the spoken-informal register and, as opposed to inversion and existential- 'there', does not place the subject in postverbal position. Full inversion and left-dislocation thus differ substantially in their syntactic features but share, nevertheless, several pragmatic functions.

As will become clear in 2.3 and 2.4, full inversion can serve a topic-management function in discourse. ${ }^{7}$ This is also the case of left-dislocation, which is used to reintroduce

[^4]old topics that have been allowed to languish in the previous discourse. It is therefore a device used to mark important referents that are brought back into the discourse after a gap of absence. This is easily observed in (87) below, where the addressor, after a considerable gap, changes the topic, the queen, to reintroduce a former one from the previous co-text, the king.
(87) (...) so the king went on a crusade, leaving the queen in the dilapidated old castle to fend herself, taking care of the country, the children, and the hungry citizenry, which se undertook to in a splendid fashion. She worked her butt off, in fact nothing was too small or too insignificant to merit her attention. Now the king, he found himself alone with many dangers to face.
[quoted from Givòn, 1993: 212]

In contrast to full inversion, left-dislocation is not used to introduce a new referent or topic into the discourse. This is why the referent which is reintroduced with left-dislocation is most commonly generic (88) or definite (89), but never indefinite as is a characteristic of new topics (cf. 90).
(88) Football players, they are always traveling around the world.
(89) Peter, all in all, he is an evil person.
(90) * A politician, I saw him there yesterday.

Left-dislocation has been left out of the corpus results. Motivations for this exclusion are its syntactic and pragmatic dissimilarities with full inversion and the fact that leftdislocation is typically an informal conversational phenomenon (cf. Givòn 1993: 210),

[^5](i) Peter is very rich.

TOPIC COMMENT
whereas full inversion is commonly found in formal written discourse (cf. Biber et al. 1999: 927).

### 1.4.4. EQUATIVES

The Dictionary of Linguistics and Phonetics (1985) defines equative structure as:

> a term used in GRAMMATICAL analysis to refer to a type of CLAUSE where the REFERENTS of the pre-verbal and post-verbal NOUN PHRASE are in relationship of identity (...) The VERB which links these ELEMENTS may be called an equational verb (or with 'equative' function) - usually in English a form of the COPULA verb be.
(ibid: 110)

Equative constructions, also named identificational constructions, are therefore copular clauses in which the verb be, or a corresponding verb in other languages, establishes a relationship of identity between the referents of two noun phrases (cf. Halliday, 1994: 129). An example is provided in (91), where the entity to which the noun phrase the only figure within our view refers is the same referred to by the noun phrase Amaryllis of the Chancery Bar.
(91) (...) the only figure within our view is Amaryllis of the Chancery Bar.
(FLOB, Belles-lettres, Biographies, Essays. G01)

As illustrated in (91), equative structures normally allow the arrangement of syntactic functions (cf. Halliday and Hassan, 1976: 169), and are by definition reversible. This reversibility is a potential source of ambiguity, because either one or the other constituent can be treated as subject or complement without affecting the overall meaning of the clause, as can be seen in (92).
(92) a. The first member of the family to take the name Kissinger was Abraham's father.
b. Abraham's father was the first member of the family to take the name Kissinger.
(FLOB, Belles-lettres, Biographies, Essays. G42)

Equative constructions have consequently been left out of the analysis since they do not allow us to distinguish between the subject and its complement. Equative constructions such as those exemplified in (91) and (92) contrast with ascriptive structures of the type illustrated in (93).
(93) Kim is a successful lawyer.

SUBJECT COMPLEMENT
[quoted from Huddleston and Pullum, 2002: 271]

In the ascriptive use the predicative complement, which denotes a property and is indefinite, and the subject are clearly distinguishable. Thus, (93) ascribes to Kim the property of being $a$ successful lawyer, and no ambiguity is possible as to which constituent functions as subject or complement. Consequently, as already noted in section 1.3, this investigation will only consider full inversions those instances of the construction in which only an ascriptive reading is possible.
Table 2. Formal classification of full inversion, and inversions excluded from the analysis

| FULL INVERSION TYPES | SYNTACTIC CRITERIA | INSTANCES |
| :---: | :---: | :---: |
| ADJECTIVE PHRASE | Preceded by an adjective phrase. | Most annoying was the lack of fresh water. |
|  |  | Conspicuous among the losers was the Spanish jury. |
| ADVERB PHRASE | Preceded by an adverb phrase. | Once in a while could be noticed the Queen's presence. |
|  |  | Here comes a period of peace. |
| PREPOSITIONAL PHRASE | Preceded by a preposition or an adverb followed by a preposition. | Between the towers was a valley. |
|  |  | Also among the Lords of England was William. |
| NOUN PHRASE | Preceded by a noun phrase with an indefinite article or a plural form. | A more comprehensive view is his account. |
|  |  | Examples of this are the national lottery and the casinos |
| VERB PHRASE | Preceded by a present or a past participle form or by a preposed adverb premodifying the verbal form. | Sitting in front of the church was a host of people. |
|  |  | Strung along East Amarillo Boulevard are cheap motels |
|  |  | Also noted from within Unit 1 are several ice-wedge casts. |
| SUBORDINATOR INVERSION | Preceded by a subordinating conjunction. This includes full inversion following comparative clauses with than, adverbial clauses introduced by as, or correlative constructions, among others. | The lectionary is closer to the mainstream of Anglo-Saxon art than is the Troper. |
|  |  | The whole effect was quite beautiful, as was the backdrop on the stage. |
|  |  | Such were the practical results that no one doubted he would succeed. |
|  |  |  |
| INVERSIONS EXCLUDED | CRITERIA | INSTANCES |
| CONDITIONAL CLAUSES AND FORMULAIC EXPRESSIONS | Verb-first constructions. | Should there be any opposition, they would go ahead. |
|  |  | Be it known that the president was ousted in 1993. |
| INTERROGATIVE AND EXCLAMATIVE CLAUSES | Verb-first constructions. | Was it a bomb? Was contraband inside? |
|  |  | What a goal did he score! |
| NEGATIVE CLAUSES | Non declarative clauses. | Didn't nobody teach me this. |
| APPENDED CLAUSES | The subject follows only the operator. | She prefers to come, does our teacher. |
| IMPLIED TEMPORAL CLAUSES | Verb-first constructions. | Came a terrific flash of lightning and clap of thunder. |
| SUBJECT-OPERATOR | The subject follows the operator but not the main verb. | Not until April 29 did Wilson consult his Inner Cabinet. |
| QUOTATION OR JOURNALISTIC STYLE | Syntactic and pragmatic differences. | "We may all be famous, then" said Peter. |

## 2. RESEARCH ON FULL INVERSION

The main approaches to the study of word-order and inversion have been carried out within the frameworks of the two major language theories existing in modern times. On the one hand, the focus of linguistic explanation may be on actual linguistic productions. On the other, the interest may lie in accounting for the internal linguistic competence of human beings. The first alternative, commonly known as the "functional" approach, takes real speech as the point of departure and tries to explain its organisation, variation and production in relation to the nature of language as a human social phenomenon which involves both the speaker and the linguistic community. The second option, the "formal" approach, epitomised by generative grammar and its various offshoots, is concerned with the mental design of grammar which is responsible for the organisation and production of speech. It contends that language is a universal ability that human beings are genetically equipped with. With this in mind, what must be accounted for is such a universal ability, and this is done by suggesting universal principles (the so-called Universal Grammar) which explain speech by means of complex abstract formulae serving as a bridge between utterances ("performance"; see Chomsky 1965) and the mental design behind them ("competence"; see Chomsky 1965).

Over the past few years word-order and inversion in particular, have been the subject of extensive linguistic research. There are abundant approaches to this topic that go beyond the scope of the present investigation and, from a generative or a functional perspective, deal with different aspects of word-order. In particular, they include comparative research on one or more languages (cf. Swan 1989), typological studies (cf. Greenberg 1966; Thompson 1978; Hawkins 1983; Mithun 1987; Hammond et al. 1988; Siewierska 1988; Downing and Nooman 1995), and studies of word-order in specific languages (cf. Contreras 1976; Fox 1985; Yokoyama 1986; Payne 1990; Bresnan and Kanerva 1992a; Schachter 1992).

Word-order has also been analysed both from a diachronic (cf. Barrett 1953; McCawley 1970; Traugott 1972; Vennemann 1974; Li 1975; Stockwell 1984) and a synchronic perspective in Proto-Indo-European (Lehmann 1974, 1993; Friederich 1975; Adrados et al. 1998), Old English (cf. Andrew 1934; Stockwell 1977; Bean 1983; Mitchell 1985; Pintzuck 1995), Middle English (cf. Swieczkowski 1962; Macleish 1969; Jucker 1991; Foster and Van der Wurff 1995; Trips 2002), Early and Late Modern English (cf. Breivik and Swan 1994; Foster and Van der Wurff 1997; Bækken 1998), and Present-day English (cf. Fries 1940; Birner and Ward 1998).

Likewise, from a functional perspective, there are numerous studies on word-order (cf. Kirkwood 1969; Givòn 1988; Hannay 1991; Downing and Locke 1992; Van Hoorick 1994; Bernardez and Tejada 1995; Harold 1995). ${ }^{8}$ These analyses are useful for clarifying the structural and pragmatic features of inversion, a construction which overrides the basic SVO word-order of Present-day English, and is thus considered marked.

Since this research is concerned only with the analysis of full inversion, I will not be dealing in this section with the studies of the inversion types excluded from the present investigation (cf. 1.2), even though the literature on these is extensive and diverse: see on subject-auxiliary inversion Kjellmer (1979), Rudanko (1982, 1987), Jacobsson (1986), Penhallurick (1987), Erdmann (1988), König (1988), on quotation inversion Hajicova (1991), Collins and Branigan (1997), among others. Similarly, given that this dissertation analyses full inversion from a synchronic perspective, diachronic work on the topic will not be discussed although, as already mentioned, there are plenty of studies dealing with inversion in most stages of the English language (cf. Fowler 1923; Jacobsson 1951; Schmidt 1980; Stein 1995, 1999; Koopman 1996; Bækken 2000, 2002; Prado-Alonso 2004). Finally, generative

[^6]approaches to full inversion will be discussed very briefly. Attention to them will only be paid in cases where functional or cognitive claims are involved.

The review that follows is divided into six sections. Section 2.1 is devoted to syntactic accounts, namely inversion as a root-transformation and the syntactic category of the preverbal constituent, whereas section 2.2 deals with functional accounts of the topic, in particular, the textual or discourse-based account (cf. 2.2.1) and the information-packaging account (cf. 2.2.2). Sections 2.3, 2.4, and 2.5 are discussions of Dorgeloh (1997), Kreyer (2004), and Chen (2003) respectively, since these are the most recent and comprehensive studies of full inversion. Lastly, a conclusion and summary is offered in section 2.6.

### 2.1 SYNTACTIC ACCOUNTS

There are numerous generative analyses of inversion that pay attention to structural and syntactic criteria (cf. Diaconescu 1984; Levine 1989; Escribano-González 1990; Bresnan 1994; Grohmann 2003, among others). As is well-known, the methodology of generative scholars is mainly based on introspective reflection, one's intuitions about language, and concocted material. In other words, they tend to focus on the grammatical relations of inversion without devoting attention to usage (cf. Safir 1985; Coopmans 1989; Rochemont and Cullicover 1990).

Syntactic discussions of full inversion focus mainly on inversion following locative constituents (cf. Bresnan and Kanerva 1992b; Den Dikken 1994; Jang 1996; Nakajima 2000, 2001), which subsumes "spatial locations, path, and directions, and their extension to some temporal and abstract locative domains" (Bresnan 1994: 75). In this sense, they neglect the analysis of other full inversion types (cf. noun phrase, verb phrase, or adjective phrase inversion, among others), which are however dealt with in functional studies (cf. Birner and Ward 1992, among others).

The syntactic approach to full inversion has focused on two main hypotheses. ${ }^{9}$ The first is to consider inversion as a root transformation (cf. Hooper and Thompson 1973) or a "main clause phenomenon" (cf. Green 1976). The second hypothesis is related to the syntactic status of the preverbal constituent (cf. Bresnan and Kanerva 1992a, 1992b, among others). The concept of root transformation was introduced in the transformational literature by Emonds (1969, 1976), and takes its name from the fact that it "moves, copies, or inserts a node C into a position in which C is immediately dominated by a root S in derived structure (...)" (Emonds 1976: 3). In other words, for those adhering to the view of inversion as a root transformation, inversions move phrasal constituents to a position immediately dominated by the clause node and cannot occur in embedded clauses. Emonds' analysis has generated a number of works (cf. Green 1976, 1985; Gary 1976; McCawley 1977, among others) which discuss specially the question of the embedding of root transformations. It has been shown, as Birner (1996) aptly notes, that there are numerous examples of inversion in embedded clauses as well, cf. (1). The root transformation analysis has thus been challenged, although it continues to be accepted as valid by scholars such as Rochemont (1986) or Coopmans (1989) for reasons internal to the theory which need not detain us.
(1) I don't believe the report that in the garden stands a unicorn.
[quoted from Birner, 1996: 54]

The second syntactic hypothesis on full inversion has to do with the controversy over the subject status of the preverbal constituent. Several studies consider that the constituent fronted in full inversion is the subject. Bresnan and Kanerva (1992a, 1992b), in their work on locative inversion, claim that the clause-initial constituent functions as the syntactic topic of

[^7]the clause and is consequently the subject, despite the fact that it is the element in postverbal position that normally controls agreement with the verb. According to their analysis, among other factors, evidence for the characterisation of the clause-initial constituent as the subject comes from: a) tag formation, and b) subject raising. These factors are briefly explained below. See Bresnan and Kanerva (1992b: 119ff) for further details.
a) The subject in the question tag of an inverted sentence does not make reference to the postverbal constituent but to the clause-initial element, as in (2).
(2) In the garden is a beautiful statue, isn't there?
[quoted from Bresnan and Kanerva, 1992b: 120]
b) The clause-initial constituent can be subject-raised, and this is an inherent feature of the subject in English (cf. 3).
(3) On that hill appears to be located a cathedral.
[quoted from Bresnan and Kanerva, 1992b: 120]

In order to further support their view, Bresnan and Kanerva (1992a, 1992b) provide the example of Chichewa, a language where finite verbs have an obligatory subject prefix that agrees with the subject noun phrase in person, number and gender. In full inversion, the subject prefix of the verb agrees obligatorily with the preposed phrase, as in (4) below. Any mismatch of the preposed subject prefix leads to ungrammaticality. It thus follows that the preposed constituent has the syntactic function of subject and the postposed constituent has the syntactic function of object.

[quoted from Bresnan and Kanerva, 1992a: 61]

The vast majority of syntactic analyses of full inversion consider, however, that the subject is the postverbal constituent. Schachter (1992: 107), for instance, refutes the abovementioned claim and argues that, as far as English is concerned, the syntactic assignment is quite different since English "has subject-verb agreement (and no object-verb agreement)" (ibid: 107). In other words, the verb in full inversion normally agrees with the postposed subject, as shown in (5).
(5) a. In the swamp was a child.
b. *In the swamp were found a child.
c. In the swamp were found two children.
d. *In the swamp was found two children.
[quoted from Schachter, 1992: 107]

Despite this assertion, it is not difficult to find acceptable examples of singular verb forms and inverted subjects in a plural form, as illustrated in (6) and (7). This fact leads Bresnan and Kanerva (1992b) to reject Schachter's view, arguing that agreement between subjects and verbs holds neither in inverted nor in SVO constructions since subject-verb agreement "is not a good identifier of the subject" (ibid: 121). This view, which I will not explore any further in this dissertation, is also held in Bresnan's (1994) account of agreement in full inversion, where it is claimed that since the clause-initial constituents of inversion constructions are not normally nominal, they cannot determine agreement with their verbs. ${ }^{10}$
(6) Here's some students taking classes in Barbara's school.
(CSPAE, Faculty Meetings, FACTMT95)
(7) About half an hour later in walks these two guys.
[quoted from Bresnan, 1994: 97]

[^8]
### 2.2 FUNCTIONAL ACCOUNTS

Most studies of English full inversion are functional and based on field work, that is, on a collection of actual samples of the language under investigation. It is in this approach that corpus linguistics plays an important role. A corpus of texts is simply "a collection of linguistic data, either written texts or a transcription of recorded speech, which can be used as a starting-point of linguistic description or as a means of verifying hypotheses about language" (Crystal 1985: 77).

Most functional analyses of inversion go beyond the central concern of the present investigation. They include works that compare inversion in one or more languages (cf. Temoche 1981; McKay 1986; Birner and Mahootian. 1996; Larsson 1997; Ambar and Pollock 2002), language-typological studies (cf. Friedemann 1997), and analyses of inversion in specific languages (cf. Torrego 1984; Shionoya 1992; Laenzlinger 1995; Mezhevich 2001; Zavala 2001; Plunkett 2004). The main interest of these studies is the synchronic-functional analysis of inversion in declarative constructions, but it is also possible to find research on inversion in quotations (cf. Collins and Braningan 1997), as well as in exclamatory, negative, and interrogative clauses (cf. Kato 1987; Huddleston 1993; Santin-Guettier 1994; Henry 1996; Filppula 2000). As regards work on full inversion in declarative clauses, it will be noted that, with the exception of Green $(1980,1982)$, the vast majority of corpus-based studies restrict their analyses to written texts. The different functional accounts of full inversion can be subsumed under the following headings: the textual or discourse related account (cf. 2.2.1) and the information-packaging account (cf. 2.2.2). They will be dealt with in order.

### 2.2.1 THE TEXTUAL OR DISCOURSE-RELATED ACCOUNT

Despite a focus on syntax, formal theories, when studying inversion, are aware of the fact that the motivations for word-order variation must not only be sought in structural or syntactic
terms, but also in discourse and contextual conditions. For this reason, among generativists full inversion is considered as a focus construction (cf. Rochemont 1986) or a stylistic device (cf. Safir 1985). ${ }^{11}$ According to Rochemont (1986), focus is understood as the clause element that carries the newest, most important, or salient information in discourse. This notion of focus, which was first restricted by Chomsky (1971) to phonological prominence, is traditionally known as information focus. Rochemont (1986), who distinguishes two types of focus, presentational and contrastive, regards focus as a syntactic notion which, nevertheless, has a semantic or functional interpretation. A constituent is a presentational focus if it is not "c-construable", that is, if it is not "under discussion", as shown in (8). Contrastive focus, on the contrary, takes place when the clause as a whole is not "c-construable", but the nonfocussed part of the clause is "c-construable" (cf. Rochemont 1986: 52), as illustrated in (9). In examples such as (8), Rochemont asserts that the postverbal constituent is syntactically identified as the presentational focus, constitutes new information and, cannot be "under discussion", that is, it is not "c-construable".
(8) Next comes a look at anorexia nervosa, the eating disorder that causes mostly young women to starve themselves.
(FROWN, press review. C04)
(9) Bill's financial situation is a source of constant concern to BILL.
[quoted from Rochemont, 1986: 52]

Nevertheless, Birner (1994: 237-238) argues the opposite and provides examples in which the postverbal noun phrase in full inversion is "c-construable", that is, evoked in the previous discourse. Examples of this, though restrictedly, are also found in the FLOB and FROWN corpora.

[^9](10) Mozart died almost exactly 200 years ago. The celebrations have been so neon-lit as to make the Bach/Scarlatti/Handel tercentenary in 1985, even the Beethoven bicentenary of 1970 , seem by contrast pale and tasteful. But the great masters do not need round-figure birthdays; their reputation no longer fluctuates and their music requires no arbitrary boosting. Nonetheless Mozart's present universal popularity would have surprised the taste of 1891. Early in the century he was taken by Hoffmann as a harbinger of romantic daemonism, but as the romantic epoch blossomed (with Hoffmann one of its key sources) Mozart was seen rather as an island of innocence before music realised its full powers. Between the summits of Bachian polyphony and Beethovenian symphonism came the infant Mozart. (FLOB, Belles-lettres, Biographies, Essays. G45)

Example (10) seems to challenge the notion of full inversion as a presentational device, because the figure of Mozart is previously presented in the discourse and afterwards in the inversion. Dorgeloh (1997: 42), nevertheless, explains these examples in terms of "topicreintroduction" and justifies Rochemont's 1986 claim. According to Dorgeloh, inversions in examples like (10) present a discourse entity which, though evoked in prior discourse, is only re-introduced after a considerable amount of text. This supports Bresnan's (1994: 86) claim that "the presentational focus may be used to reintroduce previously evoked referents into the scene or some parts of the scene". ${ }^{12}$ With this in mind, Dorgeloh (1997) suggests that the absence of "c-construability" is not a categorical phenomenon but rather a gradient one. Consequently, she justifies the claim of full inversion as a focus-marking device (cf. Dorgeloh, 1997: 43).

The presentative function of full inversion, also known as "the vividness function of inversion", is pointed out in Dubrig (1988), who analyses the discourse conditions underlying full inversion in English. In Dubrig's research, this includes the so-called inverted locative construction, which involves the movement of a locative phrase to preverbal position and the postposing of the subject after the verb (e.g. At the back of the class was Mary), the inverted

[^10]directional construction (e.g. From the pitch came a great noise), and full inversion around the verb to be (e.g. Supporting Bush was his wife). It is argued that the marked word-order of these inversions must be explained with reference to discourse features. Dubrig asserts that one of the pragmatic functions expressed by full inversion is to produce "a visual impact". This notion, also discussed in Dorgeloh (1997) (cf. section 2.3), is related to Bolinger (1977) who, restricting it to the locative types of full inversion, makes use of the term "thereless presentationals", and argues that inversions "present something on the immediate stage (bring something literally or figuratively before our presence)" (ibid: 94). Dubrig elaborates on Bolinger's argument and claims that, as illustrated in (11), full inversion encompasses a pragmatic presentative function, which consists of "directing the addressee's conscious attention to an object in his environment by making him focus on a region in his perceptual field" (Dubrig 1988: 91).
(11) If anything, Zeffirelli is too timid. Gertrude's sexual temperature is raised to suit the spiky Glenn Close (...); otherwise the interpretations are tried and true. Here is Claudius, the pleasure-seeking King (Alan Bates); here is pottering, crafty Polonius (Ian Holm, pottering a mite too much); here is Ophelia (Helen Bonham Carter), sweetly waifish one minute, hollow- eyed with lunacy the next. Best of all, here is the Ghost: Paul Scofield (...).
(FLOB, press review. C03)

The different pragmatic functions of inversion are further analysed in Green (1980: 583), who claims that inversion "may be exploited for many purposes, ranging from facilitating fluent speech to creating a variety of rhetorical effects"; although she deals with full inversion, she also treats subject-auxiliary inversion and quotation inversion. Green proposes 4 separate pragmatic functions for inverted constructions in speech and writing, of which, for practical reasons, the present review will only consider those related to full inversion. Firstly, she distinguishes a "practical function" for full inversion. This function, as
will soon be noted, is typically used in spontaneous commentary, more precisely in the play-by-play broadcast of sport events. Consider examples (12)-(15), (quoted from Green, 1980: 584).
(12) And in comes number 51, and that will be Mike Matakitis.
(13) High in the air to get the ball was Jim Brady.
(14) Trying to save it was Shelly Tunson.
(15) Underneath the basket is Barbian.

In these examples, the postposed subject is normally a reference to the player, and identifies the player in relation to a location or an act just performed. The use of full inversion allows sportscasters to buy time in order to depict the action quickly. In other words, full inversion allows the speaker to mention the location or act first and to identify afterwards the individual carrying out the act. Postponing reference to the name of the player to the end of the clause allows the sportscaster to begin describing what is directly observable, so as not to be late in reporting the play. At the same time, according to Green, this also helps the audience to understand the play. Mentioning the player's name first, and then his location or the play carried out by the player, would require more concentration on the audience's part, since it does not have "scorecards identifying the player's name (...) and would have to keep the name in mind while waiting for the description" (cf. Green 1980: 585). As will be seen (cf. 2.3, 2.4, and 2.5), scholars such as Dorgeloh (1997), Chen (2003) or Kreyer (2004), maintain that this function of full inversion is also present in the written language, even though in this case the reader may need to look back into the text.

Secondly, Green argues that full inversion can also express emphasis in discourse since it can be used as a "resolution device", as illustrated in (16) below. Full inversion can bring back an entity that has not been mentioned for some time into the discourse, thus
highlighting the resolution, primarily by the postverbal noun phrase, of the expectation or tension of the narrative.
(16) One night there was a tap on the window. Mrs. Rabbit peeped through the window. Outside stood a little angel. "Your wish is granted", it said. "A baby rabbit is on her way to you".
[quoted from Green, 1980: 595]

Vividness, according to Green (1980), is therefore related to notions such as suspense, tension, drama, and excitement. This idea is also noted in Quirk et al. (1985:522) who claim that the preposed constituent in full inversion may create "a dramatic impact". Green states that the first clause in (16) introduces the action without naming the agent, and creates a tension which is only resolved in the third clause. The inversion structure presents an individual who is the agent, and resolves the tension created by the expectation-creating first statement. Therefore, the addressee in (16) expects eventually to be told by the addressor what caused the tapping. This could not be achieved with a canonical SVO word-order which, according to Green, would be disconcerting in the mention of the angel. Inversion, therefore, marks "the resolution of apparent anomalies in discourse structure" (Green 1980: 596). ${ }^{13}$

Thirdly, Green distinguishes an introductory function of full inversion which serves to set the scene by locating the referent of the postposed noun phrase. According to Green, this is most clearly seen in full inversions that appear at the beginning of a narrative, as illustrated in (17).

[^11](17) Into the consulting room of a fairly mad physician, whose name I somehow remember as Lucas Membrane, hurtled a haggard middle-aged woman, towing her husband, a psychotic larrikin about seven feet tall.
[quoted from Green, 1980: 589]

Finally, Green's account distinguishes a linking function for full inversion, as shown in (18). This function resembles Birner's information packaging account of inversion, to be discussed in the next section. The argument is that "the preverbal phrases (...) perform a connective function for the individuals or entities to be named in the postposed subject" (Green 1980: 583). In Green's view, the connective effect of full inversion may, nevertheless, be also exploited to introduce new topics into the discourse. Thus, the clause-initial constituent in (18), a block away, introduces the second cemetery by relating it spatially to the first. Full inversion, in this sense, allows the building and shaping of the text. It provides a thematic structure in which the theme, the clause-initial constituent, projects the camera angle.
(18) This is called the New York Marble Cemetery, and a block away, open to the view of the passer-by, is another known by the same name, the most tranquil cemetery in town to look upon, probably.
[quoted from Green, 1980: 588]

A slightly different approach to inversion is found in Green (1982), who analyses the construction in the spoken and written language. ${ }^{14}$ Her analysis is not restricted to full inversion, and also involves inversions excluded from the present research, such as quotation inversion and subject-operator inversion, among others. According to Green, most inversion types are not rigidly restricted in their use and can be found in both spoken and written contexts; what most clearly tells them apart is their literary or colloquial character. In order to demonstrate such an assertion, she makes use of two different corpora. For the written language, she analyses a corpus compiled by herself and made up of essays, news, modern

[^12]American short stories, a few novels from the past century, children's picture books, and personal letters. For the spoken language she draws her examples from dialogues in short stories and novels and from edited transcripts of naturally occurring speech. The corpus is thus not exclusively based on real spoken data. The classification of each type of inversion as literary or colloquial is based partly on their frequency of occurrence in literary or colloquial contexts, and partly on a judgemental basis.

Of the 360 instances retrieved by Green, some are found in literary contexts whereas others are characteristic of colloquial usage. The inversions found in the written material involve, among others, formulaic inversions, which occur in formal, written legal documents (cf.19) and subject-operator inversion after frequency, degree, or manner adverbs as shown in (20). Green argues that the written literary language also contains instances of full inversion after preposed prepositional phrases, as in (21), a type which is usually claimed to be restricted to expository journalistic or scholarly-academic prose. Nevertheless, Green admits that she does "not have very many examples of this construction" (1982: 127) in her corpus.
(19) Be it known by all present (...).
(20) Often did she visit the inhabitants of that gloomy village.
(21) Of more probable concern to Crane's followers is a feeling that Crane did not come off too well in the first debate.

The inversions found in colloquial spoken language include inversion after a negated verb (cf. 22), inversion after a pronominal so or neither (cf. 23), and exclamatory inversion, as illustrated in (24). Full inversion after a preposed locative adverb, as in (25), is also considered a colloquial form of speech, as noted by Quirk et al. (1985: 1380), who claim that "the phenomenon is common enough in ordinary informal speech", but Green (1982: 129) admits that very few examples of this type are found in her spoken corpus. She also notes that
some instances of full inversion are found in the context of spontaneous description or commentary, as in (26)-(28) below, but they are restricted to sport broadcasting in which they merely provide convenient formulae for describing an action.
(22) It is against the rule; that is why don't so many people do it.
(23) It will get your clothes pretty clean, but so will others.
(24) Boy! Did I have a lot of garbage to put up with.
(25) Here comes the bus.
(26) At the line will be Skowronski.
(27) Stealing it and losing it was Dave Bonko.
(28) Underneath is Smith.

While primarily found in written literary language, subject-operator inversions after positive frequency, degree, or manner adverbs (cf. 20), and after negative adverbs (cf. 29) also occur in formal speech in Green's corpus. This is also the case of full inversions after preposed adjective phrases (30), after locative or directional phrases (31), and after present or past participial phrases (32): they are more frequent in the written language, but also appear in speech. In spoken use, they have, according to Green, "an especially literary tone in speech" (Green 1982: 133).
(29) Rarely do I put up with it.
(30) Important here is the fact that misleading can also be intentional or unintentional.
(31) Just above him hung a steel-engraving chariot-race, the dust flying, the chariots careening wildly, the drivers ferociously lashing their maddened horses (...).
(32) Running along the wall was a narrow ledge.

On the basis of her findings, Green therefore suggests that the variable spoken versus written language is of little use to discriminate the contexts of inversion, a more adequate parameter being colloquial versus literary language. It must be borne in mind, however, that her results are based on a fairly heterogeneous corpus.

### 2.2.2 THE INFORMATION-PACKAGING ACCOUNT

Green's functional research on inversion leads naturally to Birner's (1992, 1994, 1995, 1996, 1998) functionally oriented work, which will be reviewed shortly. Earlier accounts along the same lines which also merit attention are those of Hartvigson and Jakobsen (1974) and Penhallurick (1984). Hartvigson and Jakobsen (1974) establish a function-based taxonomy of inversion, claiming that inversion may be "provoked by the weight distribution in the clause" (ibid: 11). As Huddleston and Pullum (2002: 68) note, "weight has to do with the length or complexity of constituents in the clause". For instance, a noun phrase functioning as subject may be a single pronoun or a more complex structure with pre-modifiers or post-modifiers. There is a preferred distribution of constituents in the clause, in accordance with their weight, called the principle of end-weight (cf. Halliday 1967), which states "shortest first, longest last". In other words, there is a tendency for long or more complex constituents to be placed in clause final position, whereas light constituents are preferred initially. In Hartvigson and Jakobsen (1974), the term "weight" refers to "formal weight", that is, to syntactic complexity, and also to "notional weight", that is, to information content or news value. In accordance with the principles of end-weight and end-focus, Hartvigson and Jakobsen assert that full inversion is primarily used to delay the introduction of subject noun phrases both syntactically and functionally heavier than the verb phrase. To put it more plainly, as shown in (33), they argue that in full inversion the verb is less complex than the subject, which is placed towards
the end of the clause to comply with end-weight. This claim is challenged by Birner (1994), who provides counterexamples such as (34).
(33) There, unforgettably, is the character's desperation for friendship and power.
(FLOB, press review. C05)
(34) In the grass little jewelled lizards darted.
[quoted from Birner, 1994: 238]

As regards, Penhallurick (1984), this gives a detailed functional analysis of the characteristics of full inversion and claims that its function is to postpose a subject with a high information value. The postposing of the subject is therefore licensed because it represents new information. According to Penhallurick, therefore, in full inversion the subject always represents new information, carries tonic stress and can not be realised by a pronoun, as this constitutes given information. Additionally, Penhallurick views full inversion as a defocusing device. One notion of focus has already been noted in section 2.2.1, namely that of information focus. Penhallurick's view of focus is, nevertheless, different from Rochemont's (1986). Focus is the element placed in subject position, since he considers that it is in the subject where "the speaker's attention is centred on" (Penhallurick 1984: 47). Full inversion is thus a defocusing device because it moves the subject out of its natural position. Penhallurick further claims that the defocusing of the subject in full inversion does not only take place at the clause level, but also in ensuing discourse. In other words, the postposed subject in full inversion usually remains out of focus in the subsequent discourse as well. It deserves to be noticed that this view challenges the notion of full inversion as a presentative device discussed in 2.2.1, and seems to go against Penhallurick's argument that the subject in full inversion always represents new information. Birner (1994: 240) challenges Penhallurick's approach and shows that entities referred to by the postposed subject in full
inversion may occur in the following discourse, and are likely to remain topical for a while, as illustrated in (35).
(35) In a little white house lived two rabbits. They/The rabbits were named Flopsy and Mopsy, and they spent their days merrily invading neighbourhood gardens.
[quoted from Birner, 1994: 240]

Coming now back to Birner, most of her analyses make use of a corpus of 1778 instances of full inversion. This corpus represents a joint effort by several people and contains 1661 tokens drawn from written material and 107 instances from spoken sources. As Birner herself recognises, it is not appropriate to draw statistical conclusions regarding the various types of inversion on the basis of her corpus. Only conclusions related to "what occurs" in inversion constructions can be taken given that:

> the tokens were collected on the fly, the corpus contains only the particular instances of inversion that happened to be both encountered and noticed by its contributor, and hence is not intended to represent a random, representative or exhaustive sample of inversions occurring either in the works cited or in English in general.

Birner (1994: 234)

Birner criticises Green's $(1980,1982)$ account of inversion on the grounds that "Green proposes no unifying factor or more general principle encompassing these disparate functions" (1996: 65), that is the "practical", the "emphatic", the "presentative", and the "linking" function (cf. 2.2.1). According to Birner, most of the pragmatic functions distinguished by Green can be better explained regarding inversion as an informationpackaging device (cf. Birner 1994: 239). Birner's approach takes into consideration an important factor in regard to word-order variation and inversion in particular, namely the influence of information status. It regards full inversion as a means of maintaining the principle of end-focus, and the order of given before new information.

Birner's first approach to inversion is her 1992 dissertation, "The Discourse Function of Inversion in English". The main conclusion is that inversion is governed by several discourse-level considerations. Its central argument derives from Prince's 1981 notion of "information-packaging":

[^13](Prince, 1981: 224)
Building on the above, Birner (1992) asserts that "inversion serves an informationpackaging function linking relatively unfamiliar information to the prior context via the clause-initial placement of information which is relatively familiar (...) in the current discourse" (ibid: 127; emphasis added). Birner's claim is thus based on the notion of information status and the distinction between given and new distinction. This claim is taken up in Birner (1994), which is a discourse-functional account in which English inversion is assumed to serve an information-packaging function, and to depend on the relative discoursefamiliarity of the information represented by the preposed and postposed constituents. In this work, Birner resorts to Prince's $(1981,1992)$ taxonomies of information status, based on "a scale of assumed familiarity", whereby entities are ranked from being most familiar to least familiar (cf. Table 3 below). Prince interprets the notion of givenness as shared-knowledge, that is, as information the addressor assumes the addressee "knows" (cf. Haviland and Clark 1974), even though she prefers the label assumed familiarity (Prince 1981: 232-233). She distinguishes three degrees of information: new, inferable, and evoked. At the least familiar end, Prince places new information. Evoked information, which is mainly understood as given information, is placed at the most familiar end. Inferable information is placed inbetween, and has to do with "discourse entities (...) the speaker assumes the hearer can infer
(...) via logical (...) reasoning, from discourse entities already evoked or inferred from the context of situation or cultural context" (cf. Prince 1981: 236). This is illustrated in (36), where the doctor is an inferable entity since hospitals have doctors.
(36) My father was sent to the hospital and the doctor said there was surgery need.

Prince establishes further subdivisions within the three main types of information. New information is subclassified into brand-new (cf. 37) - information in no way known to the addressee - and unused (cf. 38) - information the addressor assumes the addressee to have as part of his background knowledge, even though it is not part of the preceding discourse.
(37) I bought a beautiful dress.
[quoted from Prince, 1981: 237]
(38) My brother supports The Dolphins in the Super bowl final (the addressee is a football fan).

Brand-new information is itself subcategorised into anchored information, that is, information linked to an item that has been part of the previous discourse or is part of the situation, and unanchored information, which has not been part of the previous discourse or situation. This is illustrated in (39) and (40) respectively.
(39) The woman I met at the dance yesterday is tall.
(40) I bought a pen yesterday.

Evoked information is subdivided into situational evoked information, which is given because it can be retrieved from the context of situation, and textual evoked information, that is, information which is given because it can be recovered from the linguistic co-text, as shown in (41) and (42) respectively. Finally, as shown in (43) and (44), inferable information
is classified into "containing" inferable, when the link is made explicit, and "noncontaining" inferable information, when the link has to be inferred using world knowledge.
(41) Lucky me just stepped into something.
[quoted from Prince, 1981: 237]
(42) Susie went to visit her grandmother and the sweet lady was making Peking Duck.
[quoted from Prince, 1981: 237]
(43) The skin of the avocado is green.
(44) I went to the post office and that stupid clerk couldn't find a stamp.
[quoted from Prince, 1981: 237]

Table 3. Scale of assumed familiarity (adapted from Prince, 1981: 245)

| $\begin{gathered} \text { + ASSUMED } \\ \text { FAMILIARITY } \end{gathered}$ | TEXTUALLY | EVOKED |
| :---: | :---: | :---: |
|  | SITUATIONALLY |  |
|  | CONTAINING INFERABNLE | INFERABLE |
|  | NON-CONTAINING INFERABNLE |  |
|  | UNUSED | NEW |
|  | BRAND-NEW ANCHORED |  |
| - ASSUMED FAMILIARITY | BRAND-NEW-UNANCHORED |  |

Prince's scale of assumed familiarity, illustrated in Table 3 above, is slightly modified in Prince (1992), which argues that all the information ranks on the scale can be further classified on the basis of two categories: discourse-status and hearer-status. This dichotomy (cf. Table 4) intends to distinguish between familiarity to the discourse and familiarity to the addressee, and rests on the claim that what is new to the discourse may not be necessarily new to the addressee.

Table 4. Hearer-familiarity vs. discourse-familiarity based on Prince (1992: 309)

|  | HEARER-NEW <br> INFORMATION | HEARER-GIVEN <br> INFORMATION |
| :---: | :---: | :---: |
| DISCOURSE-NEW <br> INFORMATION | BRAND-NEW |  |
|  | INFERABLE <br> (dependent on hearer-given <br> information) | UNUSED |

As shown above, according to Prince, information which is discourse-given and hearer-new at the same time cannot occur in real discourse. Brand-new information is equally new to the discourse and to the hearer, whereas unused information is new information to the discourse but given information to the hearer. Evoked information is given information to both the hearer and the discourse. Finally, inferable information is considered hearer and discourse new information which nevertheless depends on "logical (...) plausible reasoning" (cf. Prince 1981: 236), that is, on hearer-old information.

Following Prince's $(1981,1992)$ scales of assumed familiarity, in particular the distinction between discourse new and discourse given information, Birner (1994) shows that her corpus contains no examples of a preposed discourse-new constituent or a postposed discourse-old constituent. What is more, as shown in (45), the postposed constituent in the full inversion instances from her corpus typically represents discourse-new information.
(45) We have complimentary soft drinks, coffee, sanka, tea, and milk. Also complementary is red and white wine.
[quoted from Birner, 1994: 245]

This allows Birner to posit a pragmatic constraint on full inversion which is formulated as follows:

## Pragmatic constraint on full inversion

"The preposed element in an inversion must not be newer in the discourse than the postposed element".
(cf. Birner 1994: 245)

She therefore suggests that discourse-familiarity correlates with constituent position within the clause and that the word order in full inversion may allow the new element to be processed in relationship to the preceding familiar element. Inversion, according to Birner, serves an information-packaging function by presenting information which is familiar in the discourse before information which is unfamiliar. In other words, it allows us to improve the entry of new data into the addressee's knowledge-store.

Birner's (1995) looks at the pragmatic constraints on the verb in full inversion. The data retrieved from her corpus support the claim that full inversions do not normally contain transitive verbs, though occasional examples can be found (cf. 46).
(46) On the stairs had been left a pair of shoes.
[quoted from Birner and Ward, 1998: 203]

Another aspect worthy of mention in Birner's analysis relates to the nature of the verb occurring in full inversions. An earlier study by Hartvigson and Jakobsen (1974) had noted that be, in full inversion, does not generally contribute new information into the discourse. Birner (1995) extends this discourse-based characteristic to all higher verbs and argues that they must not represent new information in the discourse. In other words, according to Birner's analysis, for full inversion to be felicitous, the verb must be inherently informationally light. This is illustrated in (47) where "be provides no more information than would a colon in the same context" (cf. Birner 1995: 247). Similarly, in (48), the notion of calls coming has been evoked in the prior discourse, and the verb come represents discourseold information.
(47) An excellent appetizer is the squab ravioli in Garlic $=$ An excellent appetizer: the squab ravioli in Garlic.
[quoted from Birner, 1995: 247]
(48) Later that night she made 59 harassing calls between the hours of 11 p.m. and 1 a.m. Three nights later came another 28 calls between 1:52 and 2:30 a.m.
[quoted from Birner, 1995: 249]

Birner's (1996) is often considered the most detailed treatment of full inversion from an information-packaging point of view. Here she claims that the felicity of full inversion does not depend on whether the postposed noun phrase is new or not, but rather on "the relative familiarity of the postposed subject and preposed constituent" (Birner 1996: 72). In other words, according to Birner, full inversion can only be felicitous if the preposed constituent ranks higher on the scale of assumed familiarity than the postposed constituent (cf. Table 3). This is briefly illustrated in (49), where the preposed constituent contains an inferable noun phrase, the creation, which ranks higher on Prince's scale of assumed familiarity than the brand-new postposed constituent, a mosaic of four fruit sauces.
(49) The most visually enticing selection is the chocolate "delice": a hatboxshaped desert made of dark chocolate and filled with berries and white chocolate mousse. Surrounding the creation is a mosaic of four fruit sauces.
[quoted from Birner, 1996: 81]

There are nevertheless instances of full inversion in which Birner's above-mentioned claim does not hold. One of them, an example which is provided in Birner (1996: 85) and quoted as (50) below, is related to unused as opposed to inferable information. On the one hand, the mantel and its location constitute inferable information since the fireplace is evoked in the previous discourse. On the other hand, the youthful Queen Victoria represents unused information because, even though it has not been evoked previously, it may be assumed to be
known by the addressee. From this it follows that, in this particular instance, the preposed constituent introduces information which is less familiar than information presented by the postverbal constituent.
(50) Yet another massive steel fireplace, the grate concealed by a low screen of floral design. Above the mantel stood the youthful Queen Victoria.
[quoted from Birner, 1996: 85]

Further examples challenging Birner's claim are found in Chen (2003), as illustrated in (51) below. In this full inversion instance, the preverbal constituent here is inferable information since it refers to the location of the addressor. By contrast, the postverbal constituent, Shaq with those four little guys, is situationally evoked information. On Prince's scale of assumed familiarity evoked information ranks higher than inferable information. The example in (51) does not match Birner's claim, but the inversion is felicitous.
(51) "If I had missed them", O'Neal said, "he wouldn't have said nothing". "Don't cry", O'neal said. "Don't cry, dry your eye, here comes Shaq with those four little guys".
[quoted from Chen, 2003: 19]

Birner's (1996) approach to inversion is also applied in Birner (1998), where she further argues that, when the information represented by the preposed and postposed constituents has been previously evoked at different points in the discourse, the constituent that has been mentioned most recently appears consistently in preposed position in the inversion, as illustrated in (52).
(52) Yes, this is no ordinary general election. 'Evans is a Democrat; Daley is Democrat. Different Democrats have different points of view about the city of Chicago and its politics,' Jackson noted. 'The war between forces within the party continues, and within our coalition.' Standing in the middle of it all is Jesse Jackson.
[quoted from Birner, 1998: 313]

In this example both the preposed and postposed constituents represent discourse-old information. The inversion is the final clause in an article dealing with Jesse Jackson, who is quoted prior to the inversion, and constitutes evoked information. However, though Jackson is familiar in the discourse, he is not as familiar as the referent of it, namely the war between forces within the party and within the coalition, which has been mentioned even more recently than Jackson, and is therefore more familiar. This allows Birner to assert that discourse familiarity is influenced by recency of mention. According to her analysis, addressors recognise various degrees of familiarity based on recency of mention, which is relevant to full inversion since it becomes a factor in determining the information status of clause-constituents.

### 2.3 POINT OF VIEW AND FOCUS MANAGEMENT: DORGELOH (1997)

Among the most important functional works on full inversion, Dorgeloh $(1995,1997)$ figure prominently. Both analyses can be subsumed in the textual or discourse-related functional account to inversion. Dorgeloh (1995) suggests that a basic property of full inversion is to signal a transition from the main informative body to an addressor-based comment. In other words, it concludes that English full inversions are grammatical devices used to express point of view in discourse and informative texts. This claim, to which I will soon return, is more comprehensively treated in Dorgeloh (1997) which provides a detailed syntactic and functional account of both full and subject-auxiliary inversion. The analysis is based on instances drawn from written non-fictional texts. These are taken from the Lancaster-OsloBergen Corpus of British English (LOB; compilation date: 1961) and the Brown Corpus of American English (BROWN; compilation date: 1961). Each corpus comprises one million words and fifteen different textual categories, of which Dorgeloh selects the following five:

Press reportage, Press editorial, Press review, Belles-lettres/Biographies/Essays, and Science. Altogether, they total 584,000 words distributed as shown in Table 5 below:

Table 5. Text categories in Dorgeloh's corpus

| Textual <br> Category | LOB <br> (British English) |  | BROWN <br> (American English) |  | TOTAL |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Words | Samples | Words | Samples | Words |  |
| Press reportage | 34 | 68,000 | 34 | 68,000 | 68 | 136,000 |
| Press editorial | 27 | 54,000 | 27 | 54,000 | 54 | 108,000 |
| Press review | 17 | 34,000 | 17 | 34,000 | 34 | 68,000 |
| Belles-Lettres | 34 | 68,000 | 34 | 68,000 | 68 | 136,000 |
| Science | 34 | 68,000 | 34 | 68,000 | 68 | 136,000 |
| Total | $\mathbf{1 4 6}$ | $\mathbf{2 9 2 , 0 0 0}$ | $\mathbf{1 4 6}$ | $\mathbf{2 9 2 , 0 0 0}$ | $\mathbf{2 9 2}$ | $\mathbf{5 8 4 , 0 0 0}$ |

Dorgeloh's aim is two-fold. On the one hand, she seeks to analyse the patterns of use of inversion in various kinds of textual categories. On the other, she tries to discern the ultimate, including non-propositional, meaning when using an inversion. According to Dorgeloh, in the case of full inversion, this involves the expression of point of view and focus management.

Full inversion is syntactically subclassifed by Dorgeloh into adverb phrase, adjective phrase, prepositional phrase, noun phrase, or verb phrase inversion depending on the syntactic category of the phrase occurring as clause-initial constituent (cf. 1.3). The data retrieved from her corpus-based analysis consists of 302 instances of full inversion. These are examined not only according to their comparative distribution in the British and American varieties, but also according to their pragmatic and syntactic distribution over the five textual categories. On the basis of Dorgeloh's corpus, the total frequencies of inversion in British English (144 tokens) and American English (158 tokens) appear to be very much alike. The
distribution of the construction over the five textual categories in both varieties also yields similar results.

With respect to the semantics of inversion, Dorgeloh argues that, since full inversion is a marked structure in English, it must have an "extra meaning" (1997: 63). Her argument is based on a principle similar to Grice's (1975) maxim of quantity: if an addressor chooses to use a marked word-order pattern, the addressee will infer that something that goes beyond the meaning of the unmarked or canonical order is meant. According to Dorgeloh, this extra meaning is a subjective one. By making use of the rather vague and abstract notion of subjectivity, Dorgeloh considers four pragmatic functions for full inversion: deicticpresentative, lexical-presentative, lexical predicative, and anaphoric/cataphoric.

The deictic-presentative function is found in full inversion following an adverb, such as now, here, there, first, next, etc, which performs deictic reference, as in (53)-(54). According to Dorgeloh, this function of full inversion affects the structure of the discourse and serves as focus-management. The fronted adverb points to a particular temporal or spatial location and guides the addressee's attention in that direction. Once the location expressed by the fronted element is established the addressee can focus on the postposed noun phrase.
(53) Here, in otherwise total darkness, shone a single square of light
(FLOB, adventure and western. N04)
(54) Here were kept the English crown jewels pawned to the Templars in 1260 by Henry III to raise funds for his frequent warring expeditions.
(FLOB, Belles-lettres, Biographies, Essays. G52)

The lexical-presentative function is found in full inversions in which a deictic element or a locative, directional or temporal prepositional phrase is replaced by lexical information, as in (55). Although (55) presents the entity within some location to which the attention is directed, this location is not identical with the point in the discourse at which the inversion
occurs. In example (54) here designates a location in the actual text: the page on which the sentence is printed. In contrast, the prepositional phrase in (55), out of the blue, cannot be located on the page. The addressor thus provides the lexical information needed by the addressee to construe such a context of situation. As will be seen (cf. 2.4), other accounts of inversion have suggested a similar presentative or topic-introduction function for inversion (cf. Kreyer 2004), even though this idea is challenged by some analyses (cf. Birner 1996).
(55) Out of the blue came a letter from Sinclair Lewis, then the hottest literary property in America.
(FROWN, Belles-lettres, Biographies, Essays. G38)

Dorgeloh distinguishes two main uses of the lexical-presentative function. Firstly, following Langacker's (1990) work on subjectivity, and the cognitive notions of landmark, ground and figure (see further section 2.5 below), she recognises a viewpoint use. Full inversion may be used as a device to express point of view in discourse; as illustrated in (56), the addressor may adopt the subjective position of a discourse entity in the universe of discourse and direct the addressee's focus of attention accordingly. In example (56a), the camera angle from which the scene is seen remains unclear and can be either the tree or the rock.
(56) a. The tree is in front of the rock.
b. In front of the rock is a tree.
[quoted from Langacker, 1990: 6]

With full inversion, as in (56b), this ambiguity does not arise since the viewpoint from which the scene is regarded is the rock, and the location of the tree is defined in relation to it. The addressor thus moves his own position from where he views a phenomenon to the location designated by the referent of the fronted noun phrase.

Related to its viewpoint function, Dorgeloh argues that full inversion may serve to create the illusion of immediate perception: "the event is perceived by the speaker as a participant on the scene" (1997: 103). This means that full inversion creates the impression that the addressee is part of the narrative and experiences entities, objects, events, and settings through the eyes of a character and not through the description of the narrator. Dorgeloh (1995: 228) labels this the "eyewitness effect perspective", a term which, as will be seen further on, is renamed by $\operatorname{Kreyer}$ (2004: 191) as the "immediate-observer effect" (cf. 2.4). As illustrated in (57), the "eyewitness effect" is more clearly noticeable when several inversions occur in a single paragraph and create the illusion of an "imaginary guided tour" (Dubrig 1988: 87) or a "camera movement effect" (Dorgeloh 1997: 110). Additionally, according to Dorgeloh, the viewpoint established by full inversion becomes a device of discourse focus management, that is, it changes the addressee's current focus of interest or attention.
(57) All the elements of the pared-down picture contribute to its theme. On the mantel is a clock with its time stopped at 12:43 -has the train arrived on time? On either side of it are two candlesticks empty of candles, traditional symbol in still lifes of the irredeemable passage of time. Magritte is saying he doesn't need to fall back on such hackneyed symbols to make his point. Behind the clock is a mirror that reflects the clock's back and one of the candlesticks, but which otherwise reflects only the gray nothingness of the room, the existential void that is always the real subject of Magritte's paintings.
(FROWN, reportage. A38)

The other main use that Dorgeloh (1997: 111) distinguishes for lexical-presentative full inversion is topic change. This use, exemplified by (58), is found in genres which are not particularly prone to the lexical-presentative function. Dorgeloh does not indicate what are the genres in question, but claims that when full inversion is used for topic change "must thus be said to do no more than direct the observer's view - or "move the camera" - from one
location to the next" (Dorgeloh 1997: 111). In other words, it contributes to building the structure of the discourse.
(58) Several hundred thousand people have left the country to stay with friends. On top of this are thousands who have fled draft, the families of 36,000 Yugoslav army officers being moved from Croatia and Slovenia.
[quoted from Dorgeloh, 1997: 112]

Coming now to the third of the pragmatic functions of inversion identified by Dorgeloh, the lexical-predicative function, this is found in full inversions whose preposed constituent is a predicative. Inversions of this kind, although related to the presentative types, contain a stative or copular verb and convey topic contrast, as shown in (59). In this example, the presentative function of the prepositional phrase In the loss of focus on the central bilateral relationship with Japan is based on a permanent property assigned to the subject. As a result, what is intended is not only to mark the subject in clause-final position as a presentative mechanism, but also to express a meaning of contrast or exclusivity: the real misfortune lies in nothing else.
(59) In the loss of focus on the central bilateral (and in nothing else) relationship with Japan lies the real misfortune of the bush trip.
[quoted from Dorgeloh, 1997: 80]

The fourth and final function of full inversion is the anaphoric/cataphoric type. This occurs with full inversions in comparative or correlative constructions, or following a pronominal adverb, as in (60). According to Dorgeloh, these inversions merely form a link to the point of the discourse in which they occur since "anaphoric and cataphoric adverbs represent a purely textual device and merely point back and forth. Therefore, they cannot involve a particular viewpoint, let alone produce changes in it" (cf. Dorgeloh 1997: 116).
(60) So wrote Mr. Julius Nyere, the Chief Minister of Tanganyika, in last Sunday's Observer.
[quoted from Dorgeloh, 1997: 89]

Dorgeloh concludes her analysis by examining the frequency of full and subjectauxiliary inversion in the five textual categories of her corpus. Her results suggest that inversion is most commonly found in the category Belles-lettres/Biographies/Essays, followed by Press editorial and Press review, and that it is least common in Press reportage and Science. On the basis of this distribution, Dorgeloh justifies her statement of inversion as a marker of subjectivity claiming that:


#### Abstract

interestingly, this ordering corresponds to an intuitive characterisation of the genres in question in terms of subjectivity. That is, it is (...) part of the "genre competence" (...) of English speakers (...) to consider biographies, essays, review and editorials as more subjective kinds of texts, and scientific writing and reportages as less subjective ones. (...) The distribution of inversion over these genres, and with that the degree to which the construction is relatively more or less expected, confirms the existence of such genre conventions and at the same time justifies calling inversion a marker of subjectivity.


(Dorgeloh 1997: 151)

Even though, at first sight, Dorgeloh's claim that inversion is a subjective marker seems plausible, her account is flawed. The distribution mentioned above is based on the total figures for both full and subject-auxiliary inversion. An individual analysis of full inversion in her data yields, nevertheless, a fairly different picture (cf. Dorgeloh, 1997: 149). Full inversion is more consistently used in Belles-lettres/Biographies/Essays ( 91 instances) but is rivalled, by Press reportage ( 71 instances), which Dorgeloh defines as a less subjective category. Similarly, full inversion is equally frequent in Press editorial (42 instances), Press review (46 instances) and Science (52 instances), despite the fact that Science is more objective. Further counterevidence to Dorgeloh's argument is found in Prado-Alonso (2004), which compares the data retrieved by Dorgeloh (1997) for the 1960's with the data obtained
for the 1990's in a parallel sample from FLOB and FROWN, two corpora which match the structure of LOB and BROWN (for details see Mair 2002). The analysis of the 1990 corpora challenges Dorgeloh's results and yields a higher incidence of full inversion in Press reportage category (cf. Prado-Alonso, 2004: 99), whereas the construction is evenly distributed over the other four categories.

To conclude, Dorgeloh's notion of inversion as a focus management device and as expressing point of view is at first sight attractive. Yet to consider full inversion as a marker of subjectivity leads to a number of problems. If full inversion encodes a component of subjectivity because "it is perceived by the hearer as a speaker-based choice concerning the relative ordering of elements in the clause" (Dorgeloh 1997: 5), then the notion subjectivity could well be applied to all allosenteces in English, and thus prove too broad an vague to account for the differences between clause patterns exhibiting marked word order.

### 2.4 SYNTACTIC COMPLEXITY AND INFORMATION STATUS: KREYER (2004)

Like Dorgeloh (1997), Kreyer (2004) analyses the use of full inversion in written English. He attempts to provide a comprehensive account of inversion within a discourse-functional framework and uses only two discourse categories of the British National Corpus, namely "written academic English" and "prose-fiction". From his corpus, Kreyer retrieves 972 instances of inversion distributed among the following five types: adverb phrase ( 33 tokens), adjective phrase (168 tokens), prepositional phrase (354 tokens), noun phrase (316 tokens), and verb phrase inversion (101 tokens). According to Kreyer, academic texts have a high proportion of noun phrase inversion ( $44 \%$ of the tokens), whereas fictional texts show a strong preference for prepositional phrase inversion ( $73 \%$ of the tokens). Altogether, however, inversion is much more common in academic writing (706 instances) than in prosefiction (201 instances). Although Kreyer does not make any further comments on this fact, the
results seem surprising since inversion has usually been regarded as being more common in fictional than in non-fictional texts (cf. Denison 1998: 237; Biber et al. 1999: 926, among others).

Kreyer's discussion is concerned with three possible factors that might exert their influence on inverted constructions: syntactic complexity, information status, and the language user as a creative writer. In contrast to previous analyses that distinguish different kinds of syntactic complexity such as formal and notional (cf. Hartvigson and Jakobsen 1974: $11 \mathrm{ff})$, Kreyer (2004) adopts a formal notion of syntactic complexity "in terms of the amount of structure that is related to a string of lexical items" (Kreyer 2004: 39) and ease of processability. He argues that syntactic complexity has a strong influence on the order of constituents in an inversion clause, even though, according to other scholars (cf. Birner and Ward, 1998: 24-26), only information status seems to have such a powerful influence. Following Hawkins's (1994) hypothesis that parsing speed is dependent on the time needed to recognise the major constituents within a clause or a phrase, Kreyer determines syntactic complexity with regard to the major clause constituents, that is, subject, verb, object, complement and adverbial. Taking into account Wasow's (1997: 91) observation that "weight phenomena are sensitive to the relative weights of constituents whose ordering is at issue", Kreyer focuses only on the syntactic complexity of the subject and the subject complement or adverbial, given that in full inversions the verb remains in its natural position. His study makes use of a very simple word counting metric system that differs from far more complex algorithms used in the generative framework, such as node counting (cf. Frazier 1985), and word-counting algorithms (cf. Hawkins 1994), which, according to Kreyer (2004: 51), "are extremely sophisticated metrics that produce extremely precise values which can only be interpreted extremely imprecisely".

Kreyer's metric system is summarised in Table 6 and exemplified in (61)-(63) below.

Table 6. Kreyer's (2004: 52) word-counting metric system to measure the length of clause-constituents

| STEPS | PROCESS | SYMBOL |
| :---: | :--- | :---: |
| 1 | Count the number of words that form the postposed constituent | $\#_{P}$ |
| 2 | Count the number of words that form the preposed constituent | $\#_{F}$ |
| 3 | Calculate the difference | $D=\#_{P}-\#_{F}$ |
| 4 | The difference $D$ is interpreted as a measure for the difference in <br> complexity of the inversion and its canonical counterpart |  |

(61) Also available is a file for metal and a rasp for wood which we found very useful for shaping and smoothing these materials.

$$
\#_{\mathrm{P}}: 20 \text { words } \quad \text { minus } \quad \#_{\mathrm{F}}: 2 \text { words } \quad \mathrm{D}_{1}:+18
$$

A file for metal and a rasp for wood which we found very useful for shaping and smoothing is also available.
[quoted from Kreyer, 2004: 53]
(62) More curious is the extreme Catholicism of their patronage.

$$
\#_{\mathrm{p}}: 6 \text { words minus } \quad \#_{\mathrm{F}}: 2 \text { words } \quad \mathrm{D}_{2}:+4
$$

The extreme Catholicism of their patronage is more curious.
[quoted from Kreyer, 2004: 53]
(63) Into that group came Leonard.

$$
\text { \#p: } 1 \text { word minus } \quad \#_{\mathrm{F}}: 3 \text { words } \quad \mathrm{D}_{3}:-2
$$

Leonard came into the group
[quoted from Kreyer, 2004: 53]

The sign in front of the D-value shows which of the possible variants is easier to process: a positive sign as in $D_{1}$ and $D_{2}$ shows that by using an inversion the complexity is reduced. By contrast, a negative sign as in $\mathrm{D}_{3}$ shows that the canonical word-order is easier to process. The
higher value of $\mathrm{D}_{1}$ (18) and $\mathrm{D}_{2}$ (4) in comparison with $\mathrm{D}_{3}$ illustrates that in (61) and (62) processability is improved with respect to (63). Syntactic complexity can then be described according to the nine degrees described in Table 7. These serve to distinguish three types of inversion structures: pre-heavy (the preposed constituent is heavier), balanced, and postheavy inversions (the postposed constituent is heavier than the preposed constituent).

Table 7. Nine degrees of syntactic complexity (based on Kreyer 2004: 118)

| SYNTACTIC <br> COMPLEXITY | DIFFERENCE= words of the postposed constituent <br> minus words of the preposed constituent |
| :--- | :--- |
|  | -10 or more |
|  | -10 to -6 |
|  | -5 to -3 |
|  | -2 to -1 |
| BALANCED | 0 |
|  | 1 to 2 |
|  | 3 to 5 |
|  | 6 to 10 |
|  | 10 or more |

As shown above, in pre-heavy inversions, the final count difference between the preposed and postposed constituent (cf. Table 7) ranges from -1 to -10. In balanced inversions the result is 0 , and in post-heavy it ranges from 1 to 10 . This metric system allows Kreyer to show that more than $80 \%$ of the full inversion instances in his corpus contain a postverbal constituent that is syntactically heavier than the preverbal constituent. Many of the inversions retrieved from his corpus rank 10 in the above-mentioned scale (cf. Figure 1 below). According to Kreyer (2004), these "extreme cases of imbalance are not all uncommon" (ibid: 120). An example is provided in (64).
(64) At the edge are a tiny filing cabinet and a big hatstand with two blue upright chairs.
[quoted from Kreyer, 2004: 119]

$$
\text { \#p: } 13 \text { word minus } \quad \#_{\mathrm{F}}: 3 \text { words } \quad \text { D: } 10 / \text { post-heavy }
$$

As shown in Figure 1, Kreyer's account seems to provide a valid explanatory framework for syntactic complexity in full inversion constructions. The results suggest that considerations of syntactic complexity have a strong influence on full inversion: most inversions are post-heavy and comply with the end-weight principle. Kreyer's results are in line with previous accounts on the topic. Green (1980: 599), for instance, argues that "it is not mere coincidence that inverted subjects tend to be syntactically long and complex (...). Because they are long, they bear a lot of information (...) and because they have a lot of information, they are likely to contain information which is new relative to the discourse" Similarly, Birner (1996) finds that $74 \%$ of the inversion instances in her corpus contain a heavier postposed constituent, and Chen (2003) points out that $70 \%$ of his inversions are postheavily oriented. It is important to note, however, that Green (1980), Birner (1996) and Chen (2003) do not follow a word-counting system to determine the weight of the constituents in the inverted clause, and simply use syllable-counting.

Figure 1. Global distribution of syntactic complexity among inverted constructions (Kreyer 2004: 120)


Kreyer's counting system seems to be preferable but his view of balanced structures can be considered too strict and restrictive. It seems sensible to suggest that balance may differ in degree, but Kreyer (2004: 119) implies the opposite and points out that "instances of the
category " 0 " will be called balanced constructions. Those instances that fall into one of the categories above 0 will be referred to as post-heavy, those below 0 will be called pre-heavy". He therefore regards balanced constructions only those full inversions in which the final count difference between the preposed and postposed constituent is 0 . Instances ranking -2 to -1 and 1 to 2 come, however, really very close to instances ranking 0 on the scale, since there is only one or two words difference. It might seem that this discrepancy is not representative enough to tell the syntactic weight of the preposed and postposed constituents clearly apart. In fact, they could well be considered balanced structures within a line where instances ranking 0 would be the prototype.

This view of balance does not however undermine the validity of Kreyer's system. Most inversions, in academic-prose and prose-fiction, are post-heavy no matter what view of balance is used. Nevertheless, the results could be slightly different in prose-fiction if balance were understood as a gradient notion. Thus, as illustrated in Figure 2, in Kreyer's notion of balance, post-heavy inversions ( $15+16+19+21=71 \%$ ) far outnumber balanced inversions (8\%) whereas, if a gradient notion of balance were applied, balanced inversions (cf. $10+8+$ $15=33 \%$ ) would be closer in frequency to post-heavy inversions (cf. $16+19+21=56 \%$ ).

Figure 2. Syntactic complexity of inverted constructions in Kreyer's prose-fiction corpus (adapted from Kreyer 2004: 123)


As noted above, the second factor which, according to Kreyer, has an effect on the choice of full inversions is information status. In contrast to Prince (1981) or Birner (1992) (cf. 2.2.2), Kreyer regards givenness in terms of recoverability or retrievability (cf. Halliday 1967, 1976; Firbas 1992, 1995, among others). He considers that given information is concerned with information the addressor presents as recoverable by the addressee, either from what has been said before - the linguistic co-text - or because it can be taken as known from the context of situation or the context of culture. By contrast, new information is concerned with whatever information the addressor presents as not recoverable by the addressee. This seems to be a fairly simple understanding of the term but, as will immediately be seen, Kreyer's actual view of information status is more complex than this.

Kreyer's classification of information status distinguishes between directly retrievable, indirectly retrievable, and irretrievable information. Directly retrievable entities are those which look back in the text for their interpretation, that is, they are anaphorically linked to the discourse. Indirectly retrievable entities are those which are not directly retrievable but can be inferred from a directly retrievable entity. Finally, irretrievable entities, that is, new information, are those which are neither directly nor indirectly retrievable. Irretrievable entities are further subclassified into anchored and unanchored. Anchored irretrievable entities are found in clause constituents made up of a retrievable element plus a number of irretrievable elements. This is exemplified by (65) in which, although the proper noun Cleveland is retrievable, the temporal location designated by the preposition after is considered irretrievable.
(65) Though it interrupted the flow of official reports leading to legislation, and delayed the passage of the Act by adding a further - and highly political - dimension to the debate, the Cleveland Report was the final piece of the jigsaw. It showed that family support and child protection were not two necessarily conflicting and incompatible priorities: both required similar attitudes, approaches, and skills. [...] After Cleveland came the 1989 Children Act.
[quoted from Kreyer, 2004: 7]

Unanchored irretrievable entities are those in which there are no retrievable elements. Indirect retrievable entities capture. Indirectly retrievable information captures entities which in Prince (1981: 236) are termed inferables, that is "discourse entities (...) the speaker assumes the hearer can infer (...) via logical (...) reasoning, from discourse entities already evoked or inferred from the context of situation or cultural context" (cf. 2.2.2). Kreyer distinguishes two different kinds of indirectly retrievable entities. The first type comprises those relations that can be described in terms of structural semantics. In other words, an entity is regarded as indirectly retrievable if in the preceding discourse there is another entity to which the indirectly retrievable entity stands in one of the sense relations included in Table 8 below.

Table 8. Sense relations that allow for indirect retrievability: adapted from Kreyer (2004: 76)

| SENSE RELATION |  |  | EXAMPLE |
| :---: | :---: | :---: | :---: |
| synonymy |  |  | rich-wealthy |
| hyponymy |  |  | flower-tulip |
| Part-of/ member of |  |  | body-arm; the government-the Prime Minister |
| oppositeness | complementarity |  | male-female |
|  | antonymy |  | good-bad |
|  | converseness |  | buy-sell |
|  | directional | antipodal | learn-know |
|  |  | consequence | north-east |
|  |  | orthogonal | north-south |
| Non-binary contrasts | scales |  | hot-warm |
|  | ranks |  | captain-commander |
|  | cycles |  | Sunday-Monday |

The second type of indirectly retrievable entities refers to "those elements that do not lend themselves easily to an analysis of this kind, but still do pertain in some kind of relationship
to an element in the context" (cf. Kreyer 2004: 75). This involves entities which are in a relation of "aspect/attribute of", in a relation of "being a member of the same set", or in an "associative relation", as illustrated in examples (66)-(68), quoted from Kreyer (2004: 77).
(66) We bought a new car. The colour is beautiful.
(67) G: Do you watch football?

D: Yeah, Baseball I like a lot better.
(68) Yesterday I went to the new restaurant. I had lunch there.

In (66), for instance, the colour does not stand to a new car in any of the sense relations listed in Table 8 but, according to Kreyer, it is indirectly retrievable since it can be captured by a relation like "aspect or attribute of". Similarly, in (67) football and baseball cannot be captured by the sense relations discussed in Table 8, though they are indirectly retrievable information because they are members of the same set, namely sports. Finally, the last indirectly retrievable relationship is the "associative" one. In (68), this includes lunch and the new restaurant, which are regarded as being related by discourse participants.

Kreyer's gradient taxonomy of information status is finally arranged on a scale of retrievability which, as illustrated in Table 9 below, differs significantly from the scales of Prince and Birner. Anchored irretrievable information is regarded as more given than unanchored irretrievable information but less given than indirectly retrievable information.

Table 9. Scale of retrievability: (based on Kreyer 2004: 130)

| + RETRIEVABLE <br> - RETRIEVABLE | RETRIEVABLE |
| :---: | :---: |
|  | INDIRECTLY RETRIEVABLE |
|  | IRRETRIEVABLE ANCHORED |
|  | IRRETRIEVABLE UNANCHORED |

Within this information status framework, $70 \%$ of the preposed constituents in Kreyer's full inversion database contain irretrievable anchored entities. This distribution is different in the postposed constituent, where most instances (81\%) turn out to contain irretrievable unanchored entities. These results seem to prove that inversion serves an informationpackaging function given that, in the majority of instances, the postposed constituent is not part of the preceding discourse. At the same time, however, since both the preposed and postposed constituents in Kreyer's data are irretrievable, that is, new information, his results seem to challenge traditional analyses which claim that full inversions serve to maintain a progression from given to new information in discourse.

As already noted (cf. 2.2.2), Birner (1996) posits a pragmatic constraint on full inversion and claims that the information represented by the preposed constituent must be at least as familiar within the discourse as that represented by the postposed constituent. Kreyer expands on Birner's statement and further argues that, according to his analysis, the felicity of inversions does not depend on the information status of the entire preposed or postposed constituent. Rather, the crucial variable is the existence of a discourse-old link in the preposed constituent, as illustrated in (69). In this example, the noun phrase contained in the
prepositional phrase, the marsh, represents retrievable information while the location denoted by the prepositional phrase at the edge is not part of the previous discourse, and therefore considered an irretrievable anchored entity: the location as such is irretrievable but related to the previous discourse by an anchor.
(69) As soon as she reached the open deer-park she ran, and she hardly paused until she came to the broad track that sloped down to the marsh, smiling and vivid green in the late afternoon sunshine. At the edge of the marsh stood an old DANGER notice, leaning at an angle and with its warning almost rubbed out by the weather.
[quoted from Kreyer, 2004: 129]

Examples such as (69) allow Kreyer to reformulate Birner's 1996 constraint on full inversion as indicated below:

> In those cases of inverted constructions where only one of the two mobile constituents provides a link to the previous discourse, this constituent is usually the preposed one.
(Kreyer, 2004: 140)

The third factor which, according to Kreyer, may exert an influence on full inversion focuses on the language user as a creative writer. Kreyer argues that, due to its deviation from canonical word-order, inversions stand out in the surrounding context and, for this reason, receive more attention by the reader. Following this perspective, also supported by Dorgeloh (1997: 189), inverted constructions do not only serve an information packaging function, but may be used deliberately by the writer to achieve certain intended effects, namely textstructuring and the illusion of immediate perception.

Full inversions are considered to serve two main purposes in text-structuring. Firstly, they allow the efficient integration of new information by preposing a constituent that contains a link to the previous discourse. Secondly, full inversions are considered connective
devices which perform a topic-managing function by putting into final position those constituents that serve as a topic for the following discourse.

Kreyer identifies four topic-management functions of full inversion, namely topicintroduction, subtopic introduction, topic-shift, and subtopic shift. The topic-introduction function of inversion occurs when the postposed constituent is introduced as the topic of the following text, as illustrated in (70) below, where the inverted construction is the first clause in the example and introduces the main topic, namely. the interaction of legislations and the common law. As mentioned earlier (cf. 2.3), other accounts also suggest a similar topicintroduction function. Dorgeloh (1997: 112), for instance, claims that "the preposed entity is put aside as topic and (...) the discourse entity introduced [in the postposed constituent] will be subject to treatment in subsequent discourse". Nevertheless, there are also studies which reject this claim. Birner (1996), for instance, finds less than $40 \%$ of her examples to fulfil the above-mentioned function.
(70) 1 Contract Formalities and Obligations

2 Sources of the Law of Scale and Supply
3 An important which arises from contracts for sale and supply of goods is the interaction of legislations and the common law. 4 Some of the statutes are essentially $19^{\text {th }}$ century in orientation, the most notable being the Factors Act 1889 (FA) and the Sale of Goods Act 1979 (SGA) which consolidates the original Act of 1893 with the subsequent amendments made especially in the Supply of Goods (Implied Terms) Act 1973 (SOGIT). 5 There are also other statutes of relatively recent origin which follow the tradition adopted under the SGA 1979 as seen, for example, under the Supply of Goods and Services Act 1982. 6 For the most part, the SGA 1979 and the SGSA 1982 reflect an attempt to re-form the shape and organisation of common law rather than effect a reform of the substantive law. 7 Certainly Chalmers the draftsman of the SGA 1893, considered that each provision in the Act should have a common law history, an outlook which influence the approach to formulating the statutory implied terms in contracts of hire under the SGSA 1982. [...]

The second type of focus-management function noted by Kreyer is subtopic introduction, which occurs when the postposed constituent in an inverted construction is a subtopic, that is, a topic related in some way to the preceding superordinate topic (cf. Downing and Locke 1992). This use establishes into the discourse a particular entity, aspect, or circumstance, without shifting the attention of the reader away from the previous topic, as illustrated in (71) below. In this example, the main topic of the text is the use of stylometry in authorship attribution studies; the subtopic is introduced below, through full inversion, and provides an example of the particular use of stylometry.
(71) 105 The use of stylometry in authorship attribution studies depends on the hypothesis that there are quantifiable features of style which are characteristic of particular authors. 106 Ideally, a stylometric test of authorship should be a feature which is characteristic of all the known works of a particular, author and which is unique to his works. 107 Features which are to be found in all, and only, the works of a particular author turn out to be frustratingly difficult to come by. 108 Authorship attribution problems are easier to deal with when they can be cast into the following form: in respect of the measured features, does the doubtful work resemble the work of candidate author A more than it resembles the work of candidate B? 109 A classic example of this kind of study was the work of the Harvard statistician Frederick Mosteller and David Wallace on the Federalist Papers.
[quoted from Kreyer, 2004: 161]

The third type of focus-management function noted by Kreyer is topic-shift. This includes cases where full inversion introduces a new topic into the discourse which replaces a given topic. The new topic is not subordinated to the previous topic, nor are both topics subtopics to a previous superordinate topic. This is shown in (72) where the two topics are the thoughts of the characters Mary and John. Mary's thoughts are explored from line 697 to line 709. The inversion in 710 shifts the topic from Mary's thoughts to those of John, which continue throughout the discourse.
(72) 697 He drew in a deep icy breath, then straightened his shoulders, a habit he was forcing upon himself a lot of late, then made his way towards the kitchen, to be greeted by Mary with, "He's gone then?" 698 "Yes, Mary, he's gone". 699 That was all he said, and he surprised her some. 700 what by walking quickly up the kitchen and into the hall. 701 He would generally stop and have a word or two or listen to her. 702 He was a good listener; he was about the only one in the house that was these days. 703 Everybody seemed to be in a rush. 704 It was the war, she supposed. 705 She got a bit lonely when she was on by herself at nights. 706 Things were changing in the house - you could feel it - and there was trouble brewing. 707 She had only to look at Mrs Jebeau's face to see it; in fact, she could smell trouble in that direction. 708 She was a funny woman, was Mrs Jebeau, nervy; what they called neurotic, she would think. 709 "Yes" -- she nodded to herself "that was the word, neurotic, which accounted for her nerves and her funny temper too." 710 Going through Joe's mind as he mounted the stairs were thoughts which were very similar, except that he expressed his in a slightly different way. 711 His mother, he knew, was in for another of her bouts, and he would have to bear the brunt of it. 712 He should be used to them by now because they had become a frequent occurrence during the past few months, particularly since Martin had been bringing Miss Crosbie to the house. 713 He had to think of her as Miss Crosbie so he wouldn't again make the mistake that had aroused his mother's anger when he had spoken of her as Marion.
[quoted from Kreyer, 2004: 160]

Finally, Kreyer identifies a subtopic shift function for full inversion. Inversions in subtopic shift function introduce into the discourse a topic that is a subtopic to a superordinate topic in the previous discourse. An illustration of subtopic shift is provided in (73), where the third out of three mechanisms is introduced into the discourse in sentence 399. The next sentence, i.e. 400, establishes a particular finding in regard to this mechanism as a subtopic. Full inversion in sentence 402 introduces a further finding, and initiates a subtopic shift which is further elaborated in sentence 403.
(73) 395The production of increased LDL levels is probably by three major mechanisms. [...]
399 The third mechanism is now well documented in vitro and involves nonenzymatic glycosylation of apoprotein B of LDL (Gonen et al., 1981); Kim \& Kurup, 1982; Witzum et al, 1982). 400 A 2- to 3-fold increase in the amount of glucose bound to lysine of apoprotein B has been demonstrated in the serum of diabetic subject. 401 This finding may be important, since it is known that
chemical modification of lysine animo groups of the apoprotein may interfere with the specific LDL receptor binding and hence clearance of LDL (Gonen et al., 1981); Kim \& Kurup, 1982; Witzum et al, 1982).

402 An interesting finding which may also be relevant is that there have been reports of a triglyceride-enrichyed LDL present in diabetics, regardless of type and treatment (Schonfeld et al, 1974; Mancini et al, 1980). 403 The mechanism and pathophysiological significance of this abnormality remain unclear, but it may be remnant participle accumulation which might in itself be atherogenic (e.g., like LDL). 404 Other factors, which might be contributory to hypercholesterolaemia in diabetics, [...].
[quoted from Kreyer, 2004: 169]

On the basis of his data, Kreyer argues that inversion, in topic-managing function, is far more frequently used in academic texts than in fiction. According to Kreyer, this is due to the fact that academic writing is concerned "with the description of certain topics from different angles, with different views and arguments in favour and against these views" (2004: 173). Academic-writing is argued to differ from prose-fiction in that fictional texts show a more linear structure and are mainly concerned with the description of particular situations. Even though more than half of all instances in his corpus serve a topic-managing function, fictional texts are claimed by Kreyer to make less use of full inversion for topic-managing purposes, since this genre "generally shows a less complex structure" (cf. Kreyer 2004: 174). Dorgeloh (1997), however, argues the opposite and claims that "in science dealing with a certain topic usually requires its discussion in some detail. As a result, fewer topic changes, and thus fewer full inversions, are to be found" (ibid: 162).

Kreyer further argues that a characteristic feature of the text-structuring or topicmanagement function of full inversion is the way it serves to integrate new information into the already existing discourse structure. As exemplified by (74), he claims that full inversion is usually more efficient in this respect than canonical word-order. The non-inverted clause in (74a) forces the reader to process the whole clause in order to integrate the new information into the discourse. This requires considerable working memory since the subject must be kept
active during the process. In the inverted variant (74b), the reader is first presented with an instruction to establish a site in the discourse structure, namely standing a few feet away from the trees, to which the new information conveyed by the postposed constituent should be attached. Only when this ground is prepared is the postposed constituent introduced (see Chen 2003 for a similar view on full inversion).
(74) a. What are those trees? Constance asked. "Olives. Older than time. They are the blood of the Mediterranean," Ludovico answered theatrically. "Oh, Ludovico what a romantic place to live," she sighed, "I'd give anything to have a view like this". "For how long are we to be deprived of the company of the lovely new bride? a voice spoke silkily behind them. They spun round. Their host was standing a few feet away from the trees, with a glass in his hand.
b. What are those trees? Constance asked. "Olives. Older than time. They are the blood of the Mediterranean," Ludovico answered theatrically. "Oh, Ludovico what a romantic place to live," she sighed, "I'd give anything to have a view like this". "For how long are we to be deprived of the company of the lovely new bride? a voice spoke silkily behind them. They spun round. Standing a few feet away from the trees, with a glass in his hand, was their host.
[quoted from Kreyer, 2004: 158]

The above-mentioned condition allows Kreyer to hypothesise the principle of Immediate Textual Integration (ITI), of which he considers full inversion to be a good example. This principle, which deeply resembles Hawkins’ 1994 well-known principle of Early Immediate Constituent (EIC) - clause constituents occur in an order that allows for the most efficient processing of the structure of the clause - reads as follows:

[^14](Kreyer, 2004: 187)

Kreyer's principle thus claims that structures which enable the reader to create a link to an already existing text-structural node as early in the clause as possible are preferred to those structures that do not.

Alongside these topic-management functions, Kreyer identifies a different function of full inversion, namely the immediate-observer effect (2004: 191). This term stands for what Dorgeloh (1997: 103) calls "the eyewitness perspective" (cf. 2.3), and refers to the process by which full inversion is typically used to introduce a particular location and then establish an entity in regard to this location (cf. 2.3). In this sense, it will be easier for the reader to imagine an entity or a scenery if the description of the writer follows this order. In fiction, as argued earlier (cf. 2.3), this effect of inversion creates the impression on the side of the reader to be part of the narrative plot and to experience the text through the eyes of a character and not through the description of the narrator. An example of this effect (cf. 2.3) has already been provided in example (57), and is further illustrated in (75) where the succession of four inversions creates a strong impression of experiencing the whole process of discovering the heroine; that is, the reader participates in this process by recreating each of the steps one after another in their "natural" order. It creates a kind of present-tense narrative similar to the spoken texts produced in play-by-play accounts (cf. 2.2.1; Green 1980, 1982).
(75) Ludo is conscientious. He bends closely to his work. He unscrews the plate and removes it from the door. Behind the plate is a chiselled cavity. Inside the cavity is a polythene bag. Inside the bag are several smaller bags. Inside each of them is a single ounce of heroin.
[quoted from Kreyer, 2004: 193]

### 2.5 FULL INVERSION AS A GROUND-BEFORE-FIGURE CONSTRUCTION: CHEN (2003)

It has been shown so far that full-verb inversion in declarative clauses, as one type of noncanonical word-order phenomena, has received considerable attention over the last few decades. Studies on inversion include approaches within various generative (cf. 2.1) and functional frameworks (cf. 2.2) and also, more recently, analyses from the perspective of cognitive linguistics (cf. Fillmore 1999, among others).

Cognitive linguistics considers language as an integral part of general human cognition which reflects the interaction of social, cultural, psychological, communicative and functional considerations. Linguists working in the cognitive framework seek to show how language relates to human cognition and behaviour in natural ways, that is, they interpret language in light of the social and psychological contexts in which it is generated and understood. Important trends within cognitive linguistics include cognitive semantics (cf. Talmy 2000), cognitive research on conceptual integration (cf. Fauconnier and Turner 1996; Fauconnier 1997), cognitive research on conceptual metaphor (cf. Lakoff 1987; Lakoff and Johnson 1990; Sweetser 1990), and cognitive approaches to grammar. Cognitive semantics as also research on conceptual integration and metaphor are typically used for lexical studies. They challenge the view that semantics is purely truth-conditional and claim that syntactic, morphological and phonological linguistic knowledge must also be considered conceptual. The cognitive approaches to grammar are several theories that relate grammar to mental processes and structures in human cognition (see Croft and Cruse 2004: 257-290 for details).

Since cognitive linguistics considers linguistics expressions as symbols composed of an interaction of phonology, syntax, semantics, and pragmatics, inversion receives a unified account at those four levels of linguistics. Very few cognitive studies, nevertheless, deal exclusively with full inversion (cf. Chan and Kim 2002). Of these, the most important is Chen
(2003), which examines full inversion within the framework of cognitive grammar and maintains that the construction is an instantiation of the so-called Ground-before-Figure cognitive model.

The figure/ground distinction derives from Gestalt psychology (cf. Koffka 1935; Zusne 1970; Rock 1975; Miller and Johnson-Laired 1976). It is appropriately explained in Talmy (2000), who notes that all spatial relations in language are expressed by specifying the position of one entity, the figure, relative to another entity, the ground. The figure is defined as that part of a differentiated visual field which "stands out distinctively" from other parts in the field in question, that is, the ground (cf. Krech et al. 1974: 264). For instance, if someone looks out of a window, the attention is focused on a particular entity such as a tree, a cloud, a passer-by, or a car. That particular entity the observer is looking at is considered the figure, whereas the setting around is regarded as the ground. The characteristics which make an entity a likely candidate for a figure are listed in Reinhart (1984: 803) and include, among others, a continuation in shape contour and a small size area. A figure tends to be, among other things, "thing-like, solid, discrete, well-defined, stable, and tightly organised" (Wallace 1982: 214). By contrast, the ground tends to be unformed, shapeless, less definite, loosely organised, large, unstable, and irregular. It is, in sum, larger, more stationary, structurally more complex, more known to the viewer and more backgrounded than the figure (cf. Talmy 2000: 315-316). Since, according to Langacker (1991: 312), the figure is normally coded by the subject, whereas the ground is coded by more peripheral clause constituents, it is generally assumed that English follows a Figure-before-Ground order because it is an SVO language, as illustrated in (76a) below.
(76) a John lives near Park Avenue.
FIGURE
SUBJECT
b $\frac{\text { Near Park Avenue lives John. }}{\text { GROUND }}$ FIGURE

The Ground-before-Figure model, by contrast, asserts that sometimes it is cognitively efficient to present the ground before the figure, and this can be done through full inversion, as shown in (76b). This claim is formulated by Chen (2003) as follows:


#### Abstract

There are times when a speaker wants her hearer to locate and/or pay attention to an entity (figure) in a location (ground), but the hearer does not know the existence of that figure in the ground. So the speaker presents the ground first by anchoring it with a landmark that is established most often in the previous linguist context and sometimes in the discourse context. This order figure/ground presentation invites the hearer to search the ground in order to locate and/or focus on the figure.


(ibid: 48)

The formulation is well illustrated in the following potential situation. Someone looks out of a taxi-window on a spring day, and notices a purple bird in the sky. The viewer wants a second observer, who is seated next, also to enjoy the sight of the bird. The purpose is to direct the second observer's attention to the purple bird, making it the figure of the visual experience. Since there is more than one bird in the sky the second observer will probably need additional help to spot the bird before he or she can enjoy its colour. According to Chen, the best way to do so is to present, through full inversion (cf. 77), the ground - the location of the bird before the figure - the bird - so that the second observer can turn his or her head in the right direction and eventually locate the bird.
(77) Right above the tree is a purple bird.

GROUND
FIGURE

Nevertheless, the ground also needs to be presented in relation to something that is within the second observer's attention. Chen labels this the landmark, which must be easy to identify, as seen in (78) below. In this way, full inversion first directs the addressee's attention to the ground, in which the addressee finds a marker that had been established in the previous text or in the discourse context. The marker serves as a signpost directing the addressee from the ground to the figure. When the figure eventually appears, it is placed in the focus of attention of the addressee. This Ground-before-Figure manner of presentation leads to an increased attention to both the ground and figure. The figure is easier to locate by the viewer and the ground is more focused because the viewer is invited to mentally scan it so as to locate the figure. This extra focus is seen, in part, in the extra stress the preverbal element receives. A Figure-before-Ground order, though possible, would have required more effort for the addressee to locate the bird.
(78) See that tree behind the fence? $\frac{\text { RIGHT ABOVE THE TREE }}{\text { LANDMARK }} \frac{\text { a purple bird. }}{\text { GROUND }}$

On the basis of his cognitive model, Chen views inversion as a radial category comprising a prototype and extensions from the prototype. A prototype or prototypical member can be described as "that unit in a schematic network which is naturally most salient, most often thought of, most likely to be chosen as representative of the category" (cf. Langacker 1987: 492). Categories are formed around prototypes and new members, that is, extensions, "categorising relationships involving some conflict in specification between the standard and the target" (cf. Langacker 1991: 548), are added on the basis of resemblance to the prototype. According to Chen, in full inversion, the prototype is the locative $+b e+$ subject construction, as in (80). Extensions from this may occur involving the preverbal constituent or the verb. Chen offers a cognitive-based classification of full inversion in which each type is a
particular kind of instantiation of the Ground-before-Figure model described above. He distinguishes three main types, as illustrated in (79)-(81), (Chen 2003: 56-57): 1) LOC BE inversion (locative constituent + be + subject; cf. 79). 2) PATH Vm inversion (path constituent + verb of motion + subject; cf. 80). 3) NSPAT BE inversion (non-spatial constituent + be + subject; cf. 81).
(79) On my left was Tom Lopez.
(80) Through the revolving door swept Tom Lopez.
(81) Far more damaging has been the candidate's unwillingness to make strong statements of outrage at the appropriate times.

According to Chen, LOC BE inversion is the prototypical kind of full inversion in English since it is the type which best matches the Ground-before-Figure model, as in this the ground is spatial. In the Ground-before-Figure model the relationship between figure and ground must be one of existence, as is the case in LOC BE inversions. Chen further distinguishes two subtypes of LOC BE inversion: LOC NBE and PART + LOC BE. The former differs form the prototype in that the verb be is replaced by a non-be verb which must "profile stative relations" (Chen 2003: 70). Verbs which do not denote manners of being somewhere, such as dynamic-motion verbs (82), verbs of mental activity (83), and verbs of verbal articulation (84) cannot occur in this extension (see Levin and Rappaport, 1995: 230 for a similar view).
$(82)$ * In the White House walked/run/strolled president Clinton.
(83) * In the White House fantasised/meditated/dreamt president Clinton.
(84) * In the White House shouted/screamed/yelled president Clinton.

The PART + LOC BE subtype consists of a present or past participle form of the verb which is followed by a locative constituent and the verb be, as exemplified by (85) below. In this type of full inversion, Chen regards be as the main verb, though there is no clear consensus on this matter in the literature (cf. 1.3). The preverbal participial represents the ground or part of the ground. In (85), for instance, the lake is considered the landmark. The participles therefore seem to function in the same way as prepositions in other type of locative constituents; they seem to anchor the ground to their landmarks.
(85) Surrounding the lake will be hotels, restaurants, and specially shops.
[quoted from Chen, 2003: 72]

The second major type of inversion in Chen's classification is that of PATH Vm inversion, which consists of an adverbial constituent followed by a verb of motion and the postposed subject. The central subtype of PATH Vm inversion contains a path adverbial as preverbal constituent (cf. 86 below). This subtype includes verbs with motion or dynamic force. By verbs of motion, Chen understands not only prototypical verbs such as come or go, but also verbs of manner (of motion) such as dart (cf. 86), climb, jump, etc. A second subtype of PATH Vm inversion is TEMP Vm, which occurs when the preverbal constituent is a temporal adverbial (cf. 87). This extension hence comprises the key element of the PATH Vm type, namely motion, and a temporal adverbial which behaves like a directional time path adverbial, as indicated in (87). Although directionality does not seem to exist in the preverbal constituent of (87), for it only specifies a single point of time, according to Chen, it is implicitly there representing the path of time moving forward.
(86) Into the room darted Lopez.
(87) First came the embarrassment. Now comes the challenge.
[quoted from Chen, 2003: 90]

Finally, the third major type of full inversion, NSPAT BE inversion, is made up of a non-spatial preverbal constituent, followed by be and the postverbal subject, as exemplified by (88)-(89).
(88) Of great concern to us is the shortage of qualified candidates for the job. [quoted from Chen, 2003: 95]
(89) Among the reasons for its selection was the existence of this particular facility [quoted from Chen, 2003: 95]

With the aforementioned classification in mind, Chen analyses a database of 1132 full inversions, and sets out to show that the three major types of inversion - LOC BE, PATH Vm and NSPAT BE - are closely connected to particular types of discourse, namely description, narration, and exposition. This classification is based on the familiar division of texts into four main forms of discourse: narration, description, exposition, and argumentation, as proposed in Egon Werlich's text grammar (1976: 39-41), who adds instruction. Descriptive texts, according to Chen, answer the question "what was there?", and are regarded as "prototypically spatial" (cf. Chen 2003: 198) although description can also be nonspatial. Narrative texts give an answer to "what has happened?" In other words, a narration is a recount of what has taken place. Although space may also figure prominently, in contrast to description, narration is prototypically temporal since, as argued by Chen (2003: 199), "when we centre on what has happened, we normally notice the events as happening one after another". In sum, Chen asserts, description and narration are the two discourse types that are mapped to existence and activity respectively. Exposition, by contrast, is defined as a discourse type that is used to represent mental experience. It is subjective and abstract and
therefore concerned with reasoning, interpreting, influencing, and making sense of reality. According to Chen, these three discourse types can occur in any kind of speech and writing, although one type may occur more than others. In fiction, for instance, narration and description are primarily found.

The basic problem in the above textual classification is that texts, especially those of any length, rarely represent pure types. Most of the texts that a linguist deals with are made up of passages that exhibit characteristics of the three different types. For instance, narration may be combined with argumentation, or it may not be clear at times when an addressor is either explaining or describing something. Therefore, the boundaries between the three different types of discourse are not always clear-cut. This caveat does not seem to be a problem for Chen, who argues that, since cognitive linguistics treats linguistic categories as radial, "it seems reasonable to expect the three discourse types to have their respective prototypes while their extensions overlap" (Chen 2003: 203). This granted, the lack of clear distinctions between discourse types seems to weaken Chen's textual description of full inversion. As will be shown later in this dissertation, the work of Biber $(1988,1995)$, who classifies texts on the basis of empirically tested dimensions of linguistic variation, confirms that there is a lack of pure text types and that most texts must be seen as multidimensional and continuously scalar (cf. 3.2).

Further, the representativeness of Chen's database seems to be generally low given that he collects most of his full inversion examples from his everyday readings. As a result, one could guess that only the most eye-catching tokens have been incorporated to the database. A more representative database can only be achieved from the selection of texts in a more controlled and representative corpus.

The three major types of full inversion (LOC BE, PATH Vm and NSPAT BE) analysed by Chen are not evenly distributed across the descriptive, explanatory, and narrative categories. The distribution is summarised in Table 10 and further explained in what follows.

Table 10. The relation of inversion types and discourse types: (based on Chen 2003: 255)


The LOC BE type is more frequently found in description since, in Chen's view, this category is related to the existence of entities in space, as illustrated in (90). In description, the most common extension of this prototype is PART + LOC BE (cf. 91). The second and third types of full inversion, PATH Vm and NSPAT BE, are less commonly found in descriptive text types because they are non-static. Chen argues that full inversion in description serves a space management function since, as discussed earlier, it anchors the ground. In other words, full inversion is an effective way of helping the addressee to locate an entity in a spatial expanse, in relation to a known landmark.
(90) The place was a high bar, with bottles and barrels racked behind it. In front were a few wooden tables and chairs on a plank floor.
[quoted from Chen, 2003: 204]
(91) Arranged on the desk were half a dozen pictures of his grand-children and a stack of his business cards, which he kept in a holder shaped like a fire hydrant.
[quoted from Chen, 2003: 205]

Chen (2003) further argues that full inversion, in descriptive categories, displays distinctive patterns of ground-anchoring, namely ground-chaining, centre-linking, and multipleanchoring. Ground-chaining takes place when the ground in full inversion is anchored to a landmark established in the immediately preceding clause, as in (92), where the grounds of the inversions are chained together. In the first inversion, nearest her anchors the ground to the observer. In the second inversion, the ground is anchored to him, the entity established as the figure in the first inversion. This chaining of grounds, as stated by Chen, makes it easier for the addressor to manage space more efficiently.
(92) She studied the two men on the other side of the compartment. They were both looking out of the windows. Nearest her was a handsome young man in a rather flashing suit. He was broad-shouldered, like an athlete, and wore several rings. His dark coloring led Diana to wonder whether he was South American. Opposite him was a man who looked rather out of place. His suit was too big and his shirt collar was worn. He did not look as if he could afford the price of a Clipper ticket. He was also as bald as a light bulb.
[quoted from Chen, 2003: 210]

The centre-linking pattern, by contrast, refers to inversions in which the grounds of various full inversions are anchored to one common ground as their landmark. Consider (93) below.
(93) Eddie looked out of the window as they taxied to their mooring. On one side was the island, low and bare: he saw a small white house and a few sheep. On the other side was the mainland. He could see a sizable concrete jetty with a fishing boat tied up to its side; several big oil-storage tanks; and a straggle of gray houses.
[quoted from Chen, 2003: 216]

The ground in the first inversion, on one side, is anchored to Eddie. The ground of the second inversion, on the other side, is also anchored to Eddie. In fact, the location of Eddie, who is the observer, serves as a common ground to which the two sub-grounds are linked.

Finally, multiple-anchoring occurs when there is more than one anchorage for the ground in an inversion, as in (94), where the ground is anchored in terms of direction, just across the street, and in terms of distance, not fifty feet from the site. This, as noted by Chen, helps the addressee to identify better the exact location of an entity, in this case a building with a painted ad for E* Trade on it.
(94) But, just across the street, not fifty feet from the site, stands a building with a painted ad for E* Trade on it.
[quoted from Chen, 2003: 223]

In the case of narrative texts, Chen (2003: 234) finds that they make use of $L O C B E$, PATH Vm and TEMP Vm full inversions. According to him, in narration, the main function of LOC BE inversion and PATH Vm is to create suspense, tension, or vividness, as exemplified by (95). In this example, full inversion is used to represent the last event in a series. More precisely, the event reported by the inversion takes place after the event reported in the previous clause. The reader only notices the fetus in the drain of the bathtub after the narrator looks in the bathtub. This leading into the last event creates tension and suspense, and full inversion is frequent in narration during this phase of resolution because it is used "to present a long-awaited figure due to the inherent stativity in the semantics of its verb" (Chen 2003: 255).
(95) An hour or so later, we had another aided case, a "heavy bleeder." When we went inside, a woman said, "she's in bed", and then, "It's in the tub." We checked on a teenage-girl in the bedroom, who said she was fine, and then looked in the bathtub. There, nestled in the drain, was a fetus the size and color of a sprained thumb.
[quoted from Chen, 2004: 234]

The TEMP Vm type, by contrast, seems to be used to help the narrator manage the time of the narration. In (96), first and then help the narrator to explicitly place the figures in temporal
grounds. Instead of the creation of emphasis, what is intended is the connection of temporal grounds and different times in the narration, which is "the key to narrative discourse" (Chen 2003: 255).
(96) First came the publicity caravan and the team cars, bikes mounted on their roofs, spare wheels rotating idly. Then a ten-minute warning of the race's approach, and the approaching clatter of the TV helicopter.
[quoted from Chen, 2004: 248]

Finally, Chen (2003: 246) finds that the only type of full inversion used in exposition is NSPAT BE. Its main function is to connect different discourse entities more effectively. This non-locative type facilitates the introduction of an item into a space of ideas and arguments, in this sense, it resembles the LOC BE type used in description. This is shown in (97), where the landmark, this construction, is used as a link to anchor the non-spatial ground in order to present the figure, a nominal such as the boy's knife.
(97) The trajectory of POSS is probably its target, therefore, since the modified noun represents the thing possessed not the possessor. Illustrating this construction is a nominal such as the boy's knife, whose semantic composition is sketched in Fig. 4.8.
[quoted from Chen, 2003: 249]

In addition to the pragmatic factors discussed in the previous pages, Chen (2003) examines full inversion in relation to four syntactic variables, namely polarity, transitivity, embeddedness, and auxiliary constraints; these are discussed in the remainder of this section.

Full inversion, as a marked construction, is subject to a number of syntactic constraints. The first of these, the polarity constraint (cf. Quirk et al. 1985: 523), states that inversion does not allow the negation of the verb, as exemplified by (98); the negation of the preverbal and the postverbal constituents is however possible, as shown in (99) and (100) respectively.
(98)* In did not walk the chairman.
(99) Not among the items being looked into are memos obtained by the Tribune showing that the French where compared in his lab (...).
[quoted from Birner 1996: 152]
(100) From below, from Mrs Abney's domain, came no sound.
[quoted from Birner 1996: 153]

Chen (2003) claims that the polarity constraint on full inversion can be explained with reference to the Ground-before-Figure model: the verb presents the figure in a ground. To negate the verb in full inversion is thus to present a ground without its figure, and this is not possible since the presentation of a ground presupposes the presentation of a subsequent figure. In other words, as noted by Chen (2003: 123), full inversion is "a contract offered by the speaker, promising the hearer that once the ground is presented, in the preverbal constituent, there will be a figure" (2003: 123). In (101b), for instance, the addressor directs the addressee's attention to the ground, namely right above the tree, so that he can locate the subsequent figure. If the addressor does not have a figure in mind he will not take the trouble to direct the addressee's focus towards it and, for this reason, the negation of the verb is categorically ruled out in full inversion (cf. 101a).
(101) a. * Right above the tree is not a purple bird. GROUND FIGURE
b. Right above the tree is a purple bird. GROUND FIGURE

Though the verb itself cannot be negated, the preverbal and postverbal constituents can. This, according to Chen, occurs because the verbal process is construed as having taken place, that is,. the verb is not negated and the addressee's attention is directed to a figure and its ground, even if they imply the absence of something, cf. (99)-(100) above.

A second syntactic constrain on full inversion is that it is disallowed with transitive verbs (cf. Biber et al. 1999: 911), as in (102) below. Nevertheless, as Chen (2003: 134) aptly notes, transitive verbs in present or past participle form can occur in full inversions, as shown in (103). This, according to Chen, is due to the fact that the participle is stripped of its verbal meaning and functions like an adjective or an adverb. Evidence for this claim (cf. also 1.3) can be found in the fact that participles are syntactically versatile and can function as nouns and adverbs (cf. (104) and (105) respectively), and can be adjectivised to form part of the adjectival lexicon of English (cf. 106). Some participles in full inversion have even acquired full adjective status, as seen in (107). This fact is also noted in Birner and Ward (1992), who argue that the participle in verb phrase inversion no longer maintains its verbal character (see also Birner 1996: 36-39).
(102) * Through the revolving door pushed Tom Lopez Mary Davis.
[quoted from Chen, 2003: 3]
(103) Following this is the political economy of the charts which views them in relation to capitalist industrial practices.
(FLOB, Belles-lettres, Biographies, Essays. G01)
(104) Smoking is bad for health.
(105) Arriving home, Mary found the window broken.
(106) His published work was accused of plagiarism.
(107) More convincing is Bob Manson's benign traveller.
(FLOB, press review. C05)

Chen therefore asserts that only be, the prototypical verb in full inversion, can assume the role of main verb in a verb phrase inversion instance. This is consistent with the Ground-beforeFigure model: the preverbal constituent containing a participle is considered the ground which is followed by lexical be denoting existence, and the figure represented by the subject. By
contrast, full inversions with transitive verbs do not comply with the Ground-before-Figure model, because they contain two figures. Transitive verbs require an object and, as shown in (108a), clauses with an object and a subject have two figures. These are postposed in full inversion and render the construction ungrammatical (cf. 108b).
(108) a Lopez pushed Davis through the revolving door. FIGURE $_{1}$ FIGURE $_{2}$ GROUND

$$
\text { b. } \frac{\text { *Through the revolving door pushed Lopez }}{\text { GROUND }} \frac{\text { Davis. }}{\text { FIGURE }_{1}} \text { FIGURE }_{2}
$$

Coming now to the third syntactic constraint on inversion examined by Chen, namely embeddedness, full inversion has been traditionally considered a main-clause phenomenon (cf. Biber et al. 1999: 926, among others), yet it may also occur in embedded clauses (cf. 109). Chen states that the embeddability of full inversion is a result of the interaction between subordination and the Ground-before-Figure model. In subordination addressors promote one clause above another. The proposition in the clause which is not promoted is syntactically backgrounded and, according to Chen, suffers from a reduction in focus. This fact, in principle, is not consistent with the Ground-before-Figure model, according to which full inversions require the focus to be placed on the figure, that is, the entity to which the addressee is guided. Chen nevertheless contends that backgrounding of information may differ in degree across different types of subordination. He tentatively argues that those subordinations that are not too backgrounded (cf. 110) "appear to allow inversion while those which are more backgrounded seem to discourage it" (Chen 2003: 155), as shown in (111). However, Chen's analysis does not discuss which subordinated clauses are more backgrounded and which are less so.
(109) It's surprising that even more corrupt was the Republican Party.
[quoted from Birner 1996: 53]
(110) Something must have happened because in came my father.
[quoted from Dorgeloh, 1997: 102]
(111) I'm leaving, *if here comes a bus.
[quoted from Chen, 2003: 155]

Finally, a fourth syntactic constraint often mentioned in connection with full inversion is that the construction may not occur modal auxiliaries, perfective have, or progressive be (cf. Coopmans 1989). However, this is partly challenged by Chen, who provides counterexamples involving modals and perfective have, as illustrated in (112)-(113). Analogous examples are also found in FLOB and FROWN, cf. (114)-(115).
(112) Out of the chaos will come a champion.
[quoted from Chen, 2003: 175]
(113) Far more damaging has been the candidate's willingness to make strong statements of righteous outrage at the appropriate times.
[quoted from Chen, 2003: 179]
(114) To this will be added the possible effect of interference during a saccade.
(FLOB, science. J25)
(115) Important to our construction of the map will be a decomposition of the formula into three domains determined by its coordinates.
(FROWN, science. J20)

### 2.6 SUMMARY AND CONCLUSIONS

The preceding review of earlier research on full inversion has shown that the construction has attracted, and continues to attract, the interest of both formal (cf. 2.1) and functional (2.2) researchers. Yet in the light of the previous discussion, it may be concluded that there are still aspects of full inversion which either call for further clarification or have been utterly neglected

Firstly, there does not seem to be complete agreement as regards the distribution of full inversion in fiction and non-fiction. On the one hand, works such as Green (1982), Denison (1998) or Biber et al. (1999) suggest that the construction is more frequent in fiction. On the other, studies such as Kreyer (2004) argue the opposite and claim that full inversion is more common in non-fictional texts (cf. 2.4). The lack of consensus is also noticeable in the arguments supporting these claims. Thus, whereas Kreyer (2004: 173) attributes the high proportion of full inversions in academic prose texts to the fact that academic prose is complex from a structural point of view (cf. 2.4), Dorgeloh (1997: 162) uses the same argument to explain the low proportion of full inversion in the academic prose of her corpus samples. Further, the corpora used in some of the earlier research on inversion suffer from limitations of various kinds. Chen (2003), for instance, studies full inversion in an uncontrolled personal corpus and ascribes all its texts to three different types of discourse, namely description, narration, and exposition, whose boundaries sometimes overlap (cf. 2.5). Similarly, Dorgeloh (1997) examines inversion in five textual categories, namely Press reportage, Press editorial, Press review, Belles-lettres/Biographies/Essays, and Science, which, as discussed earlier (cf. 2.3), are all non-fictional texts with a high informational value (cf. Biber 1988: 128ff) so that her conclusions cannot be extended to other text categories. Finally, as mentioned in 2.4 , Kreyer (2004) simply distinguishes between fiction and academic texts in British English. Yet, as Biber (1988: 191) aptly notes, "there are systematic patterns of variation within the major genre categories of a corpus". A more comprehensive account of full inversion which examines all these systematic variations is therefore needed, as only then a conclusive picture of the uses and functions of full inversion in different genres will be achieved.

A second aspect which calls for in-depth treatment is the analysis of full inversion in the spoken language. Surprisingly, with the exception of Green $(1980,1982)$, scholars have devoted little attention to the examination of inverted constructions in this mode, apart from a few isolated hints here and there. Dorgeloh (1997) or Chen (2003), for instance, simply assert, but do not prove, that the construction mostly occurs in written discourse. Birner (1996), one of the few studies to include oral data, is nevertheless, limited, as it contains only about $6.5 \%$ of full inversions from spoken sources (cf. 2.2.2). Similarly, Chen (2003) notes the difficulty of collecting spoken data and, consequently, makes only very superficial remarks on the stress and intonation of 30 full inversion instances (2.5). Kreyer (2004) contends that full inversion is, for the most part, a written phenomenon, and argues that inversions in spoken unprepared or unscripted English, are not at all rare but of a different kind. According to Kreyer (see also Green 1982), they include formulaic expressions and a large number of subject-auxiliary inversions. Non-formulaic full inversions are, in Kreyer's view, mainly restricted to the written language and spontaneous commentary, which is not "outspokenly representative of spoken English as such" (2004: 205). Equally, Biber et al. (1999: 926) assert that "conversation is spontaneously produced and leaves less room for planning and varying the use of language". These claims largely coincide with those of Green (1982: 123), who states that she does not consider natural speech a primary source of inversions for syntactic studies.

Yet though intuitively full inversion seems to be less frequent in speech, its analysis in spoken English stills awaits accurate description. The present study is a first step in that direction.
Table 11. A summary of previous accounts on full inversion

| GENERATIVE ACCOUNTS |  | APPROACH | RESEARCHERS | CLAIMS | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | TRANSFORMATION | $\begin{gathered} \text { Emonds (1969, } \\ 1976) \\ \hline \end{gathered}$ | Inversions move phrasal constituents to a position immediately dominated by the clause node, are thereby root transformations, and cannot occur in embedded clauses. | Birner (1996), Biber et al. (1999), or Chen (2003), among others, have shown that, even though inversion is overwhelmingly a main-clause construction, it may also occur in embedded clauses. |
|  |  |  | Hooper /Thompson $(1973)$ |  |  |
|  |  |  | Rochemont (1986) |  |  |
|  |  |  | Coopmans (1989) |  |  |
|  |  | SYNTACTICSTATUS OF THE POSTVERBAL CONSTITUENT | Bresnan/Kanerva $(1992 \mathrm{a}, 1992 \mathrm{~b})$ | The preverbal constituent, in full inversion, is the subject. | This claim is challenged by other scholars who argue that there would not be subject-verb agreement. |
|  |  |  | Schachter (1992), among others | The subject, in full inversion, is the postverbal constituent. | Claim based on subject-verb agreement. |
|  |  | INFORMATION PACKAGING | Hartvigson and Jakobsen (1974) | Full inversion is primarily used to delay until the end of the clause the introduction of subject non phrases syntactically and functionally heavier than the verb. | This claim is refuted by Birner (1994) who provides several counterexamples. |
|  |  |  | Penhallurick (1984) | Full inversion is a defocusing device since it moves the subject, which loses the focus, out of its natural position. The postposed subject in full inversion usually remains out of focus in the subsequent discourse. | Birner (1994) challenges Penhallurick's proposal. |
|  |  |  | $\begin{gathered} \text { Birner } \\ (1992,1994,1995 \\ 1996,1998) \end{gathered}$ | Full inversion serves an information packaging function. It links relatively unfamiliar information to prior discourse because of the clause-initial placement of information which is relatively discourse familiar. | This view is refuted by Chen (2003) who proposes the Ground-before-Figure model of full inversion. |
|  |  |  |  | Full inversion can only be felicitous if the preposed constituent does not rank a lower degree of assumed familiarity than the postposed constituent. Information can be ultimately classified in terms of discourse-given and discourse-new. | This pragmatic constraint is refined by Kreyer (2004), and challenged by Chen (2003). |
|  |  |  |  | For full inversion to be felicitous, the verb must be intransitive, informationally light and must not represent new information. | Chen (2003) provides examples in which the verb is transitive. |
|  |  |  |  | When the information represented by the preposed and postposed constituents has been previously evoked at different points in the discourse, the constituent that has been mentioned most recently consistently appears in preposed position. | Kreyer (2004) also comments on the importance of recency of mention in full inversion. |


| Table 11. A summary of previous accounts on full inversion (continuation) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { INFORMA- } \\ & \text { TION } \\ & \text { PACKAGING } \end{aligned}$ | $\begin{aligned} & \text { Kreyer } \\ & (2004) \end{aligned}$ | Full inversion is more commonly found in non-fictional texts than in fictional texts. | Biber et al. (1999) argue the opposite |
|  |  |  | Full inversion contains a postverbal constituent that is syntactically heavier than the preverbal one. | This claim is consistent with the endweight principle. |
|  |  |  | When only one of the two mobile constituents, in full inversion, provides a link to the previous discourse, this constituent is usually the preposed one. | Claim related to Birner's 1996 pragmatic constraint on inversion. |
|  | TEXTUALBASED OR DISCOURSE RELATED |  | Full inversion may serve a text-structuring function. As a device expressing point of view it serves to create an illusion of immediate perception. | This is also asserted by Dorgeloh (1997) and rejected by Birner (1996). |
|  |  | Dorgeloh (1997) | There are not significant discrepancies between inversion in British and American English non-fictional texts at both the syntactic and pragmatic levels. | Her analysis is restricted only to British and American non-fictional written texts |
|  |  |  | Full inversion has an additional subjective meaning: the expression of point of view and focus management. | Statement supported by Kreyer (2004).Rejected by Birner (1996). |
|  |  |  | The interpretation of inversion as a subjective device is, in part, justified by the uneven distribution of inversion in the five textual categories examined. The more subjective categories turn out to contain a higher proportion of inversions. | This account is flawed, as it based on the analysis of both full and subjectauxiliary inversion. |
|  |  | $\begin{aligned} & \hline \text { Green } \\ & (1980) \end{aligned}$ | Inversion may be exploited for many functions, ranging from facilitating fluent speech to creating a variety of rhetorical effects. <br> She also analyses subject-auxiliary and quotation inversion. | Birner claims that these functions are best summarised in her information packaging account. |
|  |  | $\begin{aligned} & \hline \text { Green } \\ & (1982) \end{aligned}$ | It is not on the basis of spoken versus written language that addressors discriminate contexts for inversions, but on the basis of colloquial versus literary language. | Heterogeneous corpus of 360 inversion instances. Somehow intuitive claims as far as full inversion is concerned. |
|  |  | Bolinger (1977) | Full inversion presents something on the immediate stage. | Cf. Dubrig (1988), Dorgeloh (1997), and Kreyer (2004). |
|  |  | $\begin{aligned} & \hline \text { Dubrig } \\ & (1988) \end{aligned}$ | Full inversion is used to produce a visual impact on the addressee. | Cf. Bolinger (1977), Dorgeloh (1997), and Kreyer (2004). |
|  |  | Rochemo nt (1986) | The post-verbal constituent is syntactically identified as the presentational focus and constitutes new information. | View challenged in Birner (1996) and supported in Dorgeloh (1997). |
|  | $\begin{aligned} & \text { COGNITIVE- } \\ & \text { BASED } \end{aligned}$ | $\begin{aligned} & \text { Chen } \\ & (2003) \end{aligned}$ | Full inversion is an instantiation of the Ground-before-Figure cognitive model. | This claim differs radically from Birner's statements on full inversion. |
|  |  |  | Full inversion must be viewed as a radial category with a prototype and extensions from the prototype. | An analysis of full inversion based on the cognitive framework. |
|  |  |  | $L O C$ BE inversion is found more frequently in description and narration. PATH Vm in narration, whereas NSPAT BE is exclusively restricted to exposition. | The three discourse types sometimes overlap. |

## 3. SURVEY OF THE CORPORA

The aim of this study is to analyse the distribution patterns of full inversion in spoken and written British and American English texts dating from the 1990's. For this purpose, four computerised corpora have been selected. For written English these are the Freiburg-Lancaster-Oslo-Bergen Corpus of British English (FLOB; compilation date: 1991) and the Freiburg-Brown Corpus of American English (FROWN; compilation date: 1992), both available in the ICAME CD-Rom (Hofland et al. 1999). For spoken English, I used the International Corpus of English: the British Component (ICE-GB; compilation date: 19901993) and the Corpus of Spoken Professional American English (CSPAE; compilation date: 1994-1998). The rest of this chapter describes the corpora (sections 3.1 and 3.2), the sampling techniques (section 3.3) and the search methodology (section 3.4).

### 3.1 THE WRITTEN CORPORA: FLOB AND FROWN ${ }^{15}$

The FLOB corpus is an electronic collection of written British English texts dating from the 1990's. It comprises 500 samples of approximately 2,000 words each, which makes a total of $1,000,000$ running words distributed, as shown in Table 12 below, into fifteen textual categories and different subcategories: Press reportage; Press editorial; Press review; Religion; Skills, trades and hobbies; Popular lore; Belles-lettres, biographies and essays; Miscellaneous; Science; General fiction; Mystery and detective fiction; Adventure and western; Romance and love story; humour. ${ }^{16}$

[^15]Table 12. General composition and distribution of the texts in FLOB and FROWN

|  | SAMPLES | WORDS | CATEGORIES | SUBCATEGORIES |
| :---: | :---: | :---: | :---: | :---: |
| A | 44 | 88,000 | Press: Reportage | Political |
|  |  |  |  | Sports |
|  |  |  |  | Society |
|  |  |  |  | Spot news |
|  |  |  |  | Financial |
|  |  |  |  | Cultural |
| B | 27 | 54,000 | Press: Editorial | Institutional editorial |
|  |  |  |  | Personal editorial |
|  |  |  |  | Letters to the editor |
|  |  |  |  | Books |
|  |  |  |  | Periodicals and tracts |
| C | 17 | 34,000 | Press: Review | Reviews |
| D | 17 | 34,000 | Religion | Books |
|  |  |  |  | Periodicals and tracts |
| E | 38 | 76,000 | Skills, Trades and Hobbies | Homecraft, handyman |
|  |  |  |  | Hobbies |
|  |  |  |  | Music, dance |
|  |  |  |  | Pets |
|  |  |  |  | Sport |
|  |  |  |  | Food, wine |
|  |  |  |  | Travel |
|  |  |  |  | Trade, professional journals |
|  |  |  |  | Farming |
| F | 44 | 88,000 | Popular Lore | Popular politics, psychology, sociology |
|  |  |  |  | Popular history |
|  |  |  |  | Popular health, medicine |
|  |  |  |  | "Culture" |
| G | 77 | 144,000 | Belles Lettres, Biographies, Essays | Biography, memoirs |
|  |  |  |  | Literary essays and criticism |
|  |  |  |  | Arts |
|  |  |  |  | General essays |


|  | SAMPLES | WORDS | CATEGORIES | SUBCATEGORIES |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| H | 30 | 60,000 | Miscellaneous | Government documents |  |
|  |  |  |  |  | dation reports |
|  |  |  |  |  | ustry reports |
|  |  |  |  |  | rsity catalogue |
|  |  |  |  |  | ouse industry |
| J | 80 | 160,000 | Science |  | ural sciences |
|  |  |  |  |  | dical sciences |
|  |  |  |  |  | athematics |
|  |  |  |  |  | Psychology |
|  |  |  |  | behavioural | Sociology |
|  |  |  |  | sciences | Demography |
|  |  |  |  |  | Linguistics |
|  |  |  |  | Political | Education |
|  |  |  |  | science, | Politics and economics |
|  |  |  |  | law, education | Law |
|  |  |  |  |  | Philosophy |
|  |  |  |  |  | History |
|  |  |  |  | Humanities | Literary criticism |
|  |  |  |  |  | Art |
|  |  |  |  |  | Music |
|  |  |  |  | Technology and engineering |  |
| K | 29 | 58,000 | General Fiction |  | Novels |
|  |  |  |  |  | hort stories |
| L | 24 | 48,000 | Mystery and Detective Fiction |  | Novels |
|  |  |  |  |  | hort stories |
| M | 6 | 12,000 | Science Fiction |  | Novels |
|  |  |  |  |  | hort stories |
| N | 29 | 58,000 | Adventure and Western |  | Novels |
|  |  |  |  |  | hort stories |
| P | 29 | 58,000 | Romance and Love Story |  | Novels |
|  |  |  |  |  | hort stories |
| R | 9 | 18,000 | Humour |  | Novels |
|  |  |  |  | Arti | from periodicals |
|  |  |  |  | Art | not from novels |

Each sample in the FLOB corpus starts at the beginning of a sentence and comprises a minimum of 2,000 words. All texts are prefaced by a number of identification codes which provide details of text-type, corresponding subdivisions, and line numbers. As shown in (1), there are also a limited number of symbols within the texts of the corpus:

$$
\begin{aligned}
& \text { (1) A01 } 1<\# \text { FLOB:A01 } \mid><\text { h_><p_>Labour pledges reversal of NHS hospital } \\
& \text { A01 } 2 \text { opt-outs<p/> } \\
& \text { A01 } 3<\text { p_>By Stephen Castle<p/> } \\
& \text { A01 } 4<\text { p_>Political Correspondent }<\mathrm{p} /><\mathrm{h} /> \\
& \text { A01 } 5<p_{-}>\text {ROBIN COOK, Labour's health spokesman, yesterday repeated party } \\
& \text { A01 } 6 \text { opposition to the internal market in the National Health Service } \\
& \text { A01 } 7 \text { and said there had been <quote_>"no secret pacts with health } \\
& \text { A01 } \left.8 \text { service }<\}_{\text {_ }}><-\mid>\text { manager }<+\mid>\text { managers }<\right\} />"<\text { quote } />\text { to maintain } \\
& \text { A01 } 9 \text { hospital trusts. }<\text { p/> } \\
& \text { A01 } 10<\text { p_>Speaking to prospective Labour parliamentary candidates in } \\
& \text { A01 } 11 \text { London, Mr Cook said his party <quote > "will bring back into the } \\
& \text { A01 } 12 \text { local NHS all those hospitals that have opted out"<quote/>. "If } \\
& \text { A01 } 13 \text { there is an election in November and we win office we will stop any } \\
& \text { A01 } 14 \text { hospital in the pipeline." }<\mathrm{p} /> \\
& \text { A01 } 15<\text { p_> He and his colleagues are concerned that managers have told } \\
& \text { A01 } 16 \text { some NGS staff that a Labour government would accept trust status } \\
& \text { A01 } 17 \text { as a <tf_>fait accompli<tf/>. However, Mr Cook said Tory } \\
& \text { A01 } 18 \text { plans for an internal market demonstrated the division between the } \\
& \text { A01 } 19 \text { values of the two parties. }<\mathrm{p} />
\end{aligned}
$$

Both codes and symbols have been removed from examples cited in the current study because, as illustrated in (2a), they may make sequences difficult to read. The type of text and its corresponding subdivisions will, however, be given between brackets at the end of each example (cf. 2b).
(2) a. C13 $1<\#$ FLOB:C13 $\mid><$ h_ $><$ p_ $>$ Literature $<$ p/ $>$

C13 $2<\mathrm{p}>$ The spellbinding story-tellers $<\mathrm{p} />$
C13 $3<$ p_>Oral epic from Homer to Hercegovina<p/>
C13 $4<$ p_>ERICH SEGAL<p/><h/>
C13 $5<\mathrm{p}_{-}>$In the beginning were $<*>\mathrm{e}-\mathrm{ac}$ 位e the $<* />\mathrm{d}$ words
[In the beginning were the words], at first

C13 6 until, paralysed, they fell to earth and were imprisoned by their
C13 7 nemesis, the alphabet. The late E.A. Havelock, a brilliant,
C13 8 controversial classicist, made this paradox about Homer the focus
C13 9 of his scholarship during the entire second half of his long life.
b. In the beginning were the words, at first until, paralysed, they fell to earth and were imprisoned by their nemesis, the alphabet. The late E.A. Havelock, a brilliant, controversial classicist, made this paradox about Homer the focus of his scholarship during the entire second half of his long life.
(FLOB, press review. C13)

The FROWN corpus comprises an electronic database of written American English texts dating from the 1990 's. Its structure is parallel to that of FLOB, and thus contains the same categories and subcategories presented in Table 12, as well as the same number of samples (500) and words $(1,000,000) .{ }^{17}$ Like its British counterpart, all samples contain symbols and are introduced by various codes to indicate subcategories and line numbers. Note in this regard example (3) below:
(3) A01 $1<\#$ FROWN:A01 $\mid><h_{-}><$p_ $^{>}>$After 35 straight veto victories, intense

A01 2 lobbying fails president with election in offing $<\mathrm{p} />$
A01 $3<p_{-}>$By Elaine S. Povich<p/>
A01 $4<$ p_>CHICAGO TRIBUNE $<$ p/ $><$ h/ $>$
A01 $5<$ p_>WASHINGTON - Despite intense White House lobbying, Congress
A01 6 has voted to override the veto of a cable television regulation bill,
A01 7 dealing President Bush the first veto defeat of his presidency just
A01 8 four weeks before the election. $<p />$
A01 $9<p_{-}>$Monday night, the Senate overrode the veto $74-25$. The same
A01 10 margin by which the upper house approved the bill last month and
A01 11 comfortably above the two-thirds majority needed. $<\mathrm{p} />$
A01 $12<p_{-}>$Not one senator changed sides, a blow to Bush's prestige after
A01 13 he had heavily lobbied Republican senators, urging them not to
A01 14 embarrass him this close to the election. $<\mathrm{p} />$
A01 $15<$ p_>Both California senators, Republican John Seymour and Democrat
A01 16 Alan Cranston, voted to sustain the veto. $<\mathrm{p} />$
A01 $17<p_{-}>$The bill was immediately sent to the House, which voted 308-114
A01 18 for the override, 26 more than needed. A cheer went up as the House
A01 19 vote was tallied, ending Bush's string of successful vetoes at
A01 20 35.<p/>

[^16]Since both FLOB and FROWN match in most aspects of their internal structure, they allow a synchronic-dialectal comparison of the frequency and patterns of distribution of full inversion in written British and American English texts from the 1990's.

### 3.2 THE SPOKEN CORPORA: ICE-GB AND CSPAE ${ }^{18}$

The International Corpus of English: Great Britain (ICE-GB) is the first released component of a larger corpus, the International Corpus of English, which is currently being compiled and will include spoken and written texts from different national varieties of English, including American, Nigerian and Indian English, among others (for details see Greenbaum 1988, 1991).

The ICE-GB is a collection of contemporary British English texts produced during 1990-1993 and designed to cover both spoken and written English. The corpus is 1,000,000 words long, divided into 500 samples of approximately 2,000 words each, across eleven textual categories and thirty-two subcategories. The distribution of the total words is uneven, with the written section comprising 400,000 words -200 samples - and the spoken section 600,000 words -300 samples, as shown in Tables 13 and 14 respectively. Likewise, the categories and subcategories into which the corpus is divided also differ radically in size. In the spoken section, for example, Private dialogues contains 100 samples and Unscripted monologues 70 (cf. Table 14).

As noted in Table 13 below, the written data involve Fiction, Press reportage and Editorials, Personal letters, Business correspondence, Student essays and exams, and Popular and learned writing. Notably missing is Legal English, which is excluded on the grounds that it represents a highly fossilised and specialised type of English intended mainly for a very

[^17]specific audience. ${ }^{19}$ As shown in Table 14, the spoken material is divided into Dialogues and Monologues. Dialogues are further subdivided into Public and Private spoken texts. Public dialogues, which include Classroom lessons, Broadcast, Broadcast interviews, Parliamentary debates, Legal cross-examinations, and Business transactions texts, represent the most formal spoken data in ICE-GB. By contrast, Private texts are made up of Face-to-face conversations and Phonecalls of spontaneous speech, which constitute nearly one-third of the spoken samples and include the least formal types of texts. Monologues, in turn, are divided into Unscripted and Scripted texts, which are further classified into Spontaneous commentaries, Unscripted speeches, Demonstrations, Legal presentations and Broadcast news, Broadcast talks and Non-Broadcast talks respectively. It is worth mentioning, however, that the texts included in the scripted category of the spoken section were written to be spoken, that is, they were not produced "online", as it were, but with some degree of premeditation and planning typical of formal written texts.

[^18]Table 13. General composition and distribution of the written texts in ICE-GB

| 1. NON- PRINTED |  | $2 .$ <br> PRINTED |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBSECTIONS |  | SUBSECTIONS |  |  |  |  |  |
|  | ص |  | $ص \text { 安 }$ |  |  |  |  |
| TEXTS | TEXTS | TEXTS | TEXTS | TEXTS | TEXTS | TEXTS | TEXTS |
| Student essays | Social letters | Humanities | Humanities | News reports | Administrative/ regulatory | Press <br> Editorials | Novels/ Stories |
| Student examination scripts | Business <br> letters | Social sciences | Social sciences |  | Skills/ Hobbies |  |  |
|  |  | Natural sciences | Natural sciences |  |  |  |  |
|  |  | $\begin{gathered} \text { Technolo- } \\ \text { gy } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Technolo- } \\ \text { gy } \\ \hline \end{gathered}$ |  |  |  |  |
| 20 | 30 | 40 | 40 | 20 | 20 | 10 | 20 |
| 50 SAMPLES |  | 150 SAMPLES |  |  |  |  |  |
| 100,000 WORDS |  | 300,000 WORDS |  |  |  |  |  |
| 200 SAMPLES 400,000 WORDS |  |  |  |  |  |  |  |

Table 14. General composition and distribution of the spoken texts in ICE-GB

| 1. DIALOGUES |  | $2 .$ <br> MONOLOGUES |  |
| :---: | :---: | :---: | :---: |
| SUBSECTIONS |  | SUBSECTIONS |  |
| B <br> PUBLIC | A PRIVATE | B <br> SCRIPTED | A UNSCRIPTED |
| TEXTS | TEXTS | TEXTS | TEXTS |
| $\begin{gathered} \hline \text { Classroom } \\ \text { lessons } \\ \hline \end{gathered}$ | Face-to-face | Broadcast talks | Spontaneous commentary |
| Broadcast discussions | Phonecalls | Non-broadcast talks | Unscripted speeches |
| Broadcast interviews |  | Broadcast news | Demonstrations |
| Parliamentary debates |  |  | Legal presentations |
| Legal crossexaminations |  |  |  |
| Business transactions |  |  |  |
|  |  |  |  |
| 80 SAMPLES | 100 SAMPLES | 50 SAMPLES | 70 SAMPLES |
| 160,000 WORDS | 200,000 WORDS | 100,000 WORDS | 140,000 WORDS |
|  | 300 SAMPLES 600,000 WORDS |  |  |

Each sample in ICE-GB is given an identifying code which includes information about the mode, the section, subsection and the text number of each text under analysis. Table 15 provides an instance of this way of classifying samples:

Table 15. Identifying code in the ICE-GB: Broadcast news subsection

| S | 2 | B | 001 |
| :---: | :---: | :---: | :---: |
| Spoken |  |  |  |

To facilitate maximal usefulness to analysts, the ICE-GB corpus is fully tagged and parsed (cf. 4). ${ }^{20}$ The ICE tagset consists of three main kinds of tags: structural tags, part-ofspeech tags, and grammatical tags.
(4)

| [<I> < \$ ${ }^{\text {> }}<$ <\#1:1:A> <sent>] | DT,DTP() |
| :---: | :---: |
| PU,NONCL() | DTCE,ART(indef) $\{\mathbf{a}\}$ |
| DISMK,FRM \{Good evening\} | NPPR,AJP(attru) |
| [<\#2:1:A> <sent>] | AJHD,ADJ(ge) \{relentless\} |
| PU,CL(main,montr,pres) | NPHD,N(com,sing) \{bombardment\} |
| A,PP() | NPPO,PP() |
| P,PREP(ge) \{For\} | P,PREP(ge) $\{\mathbf{o f}\}$ |
| PC,NP() | PC,NP() |
| DT,DTP() | NPHD,N(com,plu) \{targets\} |
| DTCE,ART(def) \{the\} | NPPO, PP() |
| DTPS,NUM(ord) \{nineteenth\} | P,PREP(ge) \{in\} |
| NPHD, N (com,sing) \{day | PC,NP(coordn) |
| SU,NP() | CJ,NP() |
| DT,DTP() | NPHD,N(prop,sing) \{Iraq\} |
| DTCE,ART(def) \{the\} | COOR,CONJUNC(coord) \{and\} |
| NPHD, N (com,plu) \{allies\} | CJ,NP() |
| VB,VP(montr,pres) | NPHD,N(prop,sing) \{Kuwait\} |
| MVB,V(montr,pres) \{maintain\} |  |

(ICE-GB, S2B-001; emphasis added)

[^19]Structural tags provide descriptions of the texts themselves. All texts contain file headers, which provide general descriptive information. A large number of sociolinguistic variables are included: the number of speakers in the texts, the age, gender, education level, and role of the speakers, as well as the medium, scope, frequency, and circulation of the spoken texts. Each text is divided into text units, which correspond either to grammatical clauses or, in spoken texts, to coherent utterances. Part-of-speech tags mark segments of speech that overlap, and indicate laughing and exclamations. The grammatical tags are also detailed and consist of 20 main word-classes. Similarly, the parsing scheme has over 90 functions and category labels. For each clause, a parsed tree provides a visual representation of the part-ofspeech of each word, the particular phrases and clauses that these words are members of, and the grammatical function they serve, that is, subject, object, etc. (cf. section 3.4). ${ }^{21}$

The Corpus of Spoken Professional American English (CSPAE) contains transcriptions of formal conversations collected from 1994 to $1998 .{ }^{22}$ It consists of short interchanges by approximately 400 speakers, centred on professional activities broadly related to the political and academic fields. The CSPAE compiles $2,000,000$ million words and is divided into two main sub-corpora. The first sub-corpus contains 6 samples, of varying size, with a total of some 0.9 million words; it includes material from conferences in the White House, which consist of question and answer sessions. The second sub-corpus is a record of faculty meetings at the University of North Carolina, as well as Committee meetings held at different locations around the United States; it contains 11 samples, also differing in size, with a total of $1,100,000$ million words. ${ }^{23}$ In this second sub-corpus, the interactions include

[^20]questions, but also involve statements and discussions of issues. Table 16 below shows the distribution of the two sub-corpora: ${ }^{24}$

Table 16. General composition and distribution of the texts in CSPAE

| SUBCORPORA | CONFERENCES IN THE WHITE HOUSE | FACULTY AND COMMITTEE MEETINGS |  |
| :---: | :---: | :---: | :---: |
| TEXTS | Wh 94 | Comm 8a97 | Facmt 95 |
|  | Wh 95 | Comr 6a97 | Facmt 96 |
|  | Wh 96 a | Comr 6b97 | Facmt 97 |
|  | Wh 96 b | Comr 797 | Comm 597 |
|  | Wh 97 a | Comm 897 | Comm 697 |
|  | Wh 97b |  | Comm 797 |
| Total words | 0.9 million | 1.1 million |  |

Each sample in the CSPAE contains a number of codes used in the transcriptions to provide information about the speakers and type of text, as can be seen in (5):
(5) (University of North Carolina Faculty Council Meeting: 1995) $<$ SP $>$ JACKSON: $</$ SP $>$ I'm here because Student Government wants to invite you to a forum that is designed to offer the University community an opportunity to discuss possible revisions to the Carolina Course Review survey. I don't know how many of you have actually seen a copy. This is the latest Carolina Course Review that came out for this semester. The Carolina Course Review is essentially designed to give information to students about the classes for which they may register for the following semester. It includes both information provided by faculty about the courses, including course descriptions and requirements for the course, as well as information from a survey that's filled out at the end of each course. This survey both provides information to students as well as possibly help with feedback to faculty. Hopefully we can get a good conversation between students and faculty to discuss what really needs to be on the survey so that the survey will provide information to students that they really feel is needed, as well as information to you that feel can give you constructive feedback on your courses. This forum is going to be this coming Tuesday, January 17th, at 5:00 in the Student Union, Room 205 and 206. We would really appreciate it if you could come. Thank you. $<$ SP $>$ BROWN: $</$ SP $>$ Do it again, George, where is it? <SP>JACKSON:</SP> It's in the Student Union, Room 205 and 206, on this coming Tuesday, January 17th, at 5:00.

[^21]It is worth mentioning that ICE-GB and CSPAE are not strictly comparable corpora. Both the date of compilation of the texts, and also the type of textual categories, differ in the two corpora. However, what ICE-GB and CSPAE do share is that both comprise texts collected from formal spoken discourse. In this sense, the selection of the corpora is of interest in the present study in that it provides a representative database of prepared and unprepared formal spoken Modern English texts.

### 3.3 DATABASE DESIGN: SAMPLING THE CORPUS

Sampling texts in linguistic research is never an easy task. In recent corpus-based analyses two main approaches have been used to arrive at a representative database of full inversion constructions. Since inversion is a clause-bound phenomenon, several studies have selected their data on the basis of the number of clauses in the corpora under investigation. Examples of this approach include Birner (1996) and Chen (2003), who both build a corpus of instances which they have encountered in their everyday reading, and Kreyer (2004), who analyses full inversions in 259,951 sentences ( $3,204,187$ words) from the BNC. By contrast, others (cf. Dorgeloh 1997; Prado-Alonso 2004, among others) sample and analyse their data on the basis of the number of words in the corpus. This sampling method, which will be applied in the present study, is unavoidable when the corpora under analysis are neither tagged nor parsed, and hence when their exact number of clauses is consequently almost impossible to ascertain.

As already mentioned, the data for the present study are taken from four computerised corpora of written and spoken British and American English, namely FLOB, FROWN, ICEGB, and CSPAE. Nevertheless, since the total size of this database is around $5,000,000$ words, and comprises too much linguistic material, sub-corpora have been compiled.

As noted in Romaine (1982), the optimal size of a sample count in running words depends on the subject of the study. If the phenomenon under investigation is not very
common in language, a large sample of texts is needed. If, on the other hand, a common phenomenon is being investigated, a smaller sample can be adequate. At the outset of some corpus-based investigations, researchers do not know for certain the real frequency of the construction under analysis. This is not the case of full inversion in English, though, whose general occurrence, at least in written texts, has been attested in a number of studies (cf. Dorgeloh 1997; Biber et al.1999; Kreyer 2004). Biber's et al. (1999) corpus-based analysis, for example, provides 500 instances of inversion per million words in written texts, and points out that in English, "inversion is relatively rare (excluding syntactically conditioned inversion in interrogative clauses)" (ibid: 926). This claim seems to be confirmed by Dorgeloh (1997), who collects a database of 302 full inversion instances in 584,000 words.

The above-mentioned data seem to indicate that, in the analysis of full inversion, a large corpus is needed to arrive at a representative number of instances. This assumption is further supported in Prado-Alonso (2004) which, taken as a pilot study to test the required size of the corpus scrutinised in this dissertation, provides a total number of 68 full inversion instances in the analysis of 152,000 words. On these grounds, then, a large database of 1,804,000 words has been selected for the present study, drawn from FLOB, FROWN, ICEGB, and CSPAE. As will be noted shortly, this compilation has not been done randomly but, rather, is based on tested criteria of linguistic variation.

### 3.3.1 SAMPLING THE WRITTEN DATA

As Table 17 below illustrates, the corpora used for analysing the behaviour of full inversion in written texts is represented by a total amount of $1,084,000$ words, which are evenly distributed in both British and American English. This makes a total number of 542,000 words and 271 samples for each geographical variety. The categories selected from FLOB and FROWN have been grouped into fictional texts, namely Science fiction, Western, Mystery
and detective fiction, Romance fiction, General fiction, and non-fictional texts, namely Science, Press reportage, and Miscellaneous. ${ }^{25}$

Since the categories of fictional (117 samples, 234,000 words) and non-fictional texts (154 samples, 308,000 words) differ in size (see Appendix I and II for further details), frequencies have been normalised following Biber's (1988:14) proposal for a "normalised frequency of a feature". As Biber notes, "raw frequency counts cannot be used for comparison across texts when they are not at all of the same length", since in this case longer texts would tend to have higher frequencies simply because there is more opportunity for a feature to occur within them. Using Biber's procedure and comparing the frequency per 100; 1,000; 10,000 , or 100,000 words - depending on the frequency of the feature under investigation this possible bias is eliminated. In the present study, given that full inversion is considered a relatively rare syntactic construction compared to unmarked SVO word-order (cf. Biber et al. 1999: 926), normalised frequencies are computed by dividing absolute frequencies by the total number of words of each category. The total is then multiplied by 100,000 . Hence, if the Press reportage category of FLOB and FROWN contains 32 examples of prepositional phrase inversion, the normalised frequency will be as follows:
$(32$ instances $/ 88,000+88,000$ words $) \times 100,000=18.18$

[^22]Table 17. Sources and distributions of the corpus texts selected from FLOB and FROWN

| FLOB |  |  |  | FROWN |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FICTION |  | NON-FICTION |  | FICTION |  | NON-FICTION |  |
| TEXTS | S | TEXTS | S | TEXTS | S | TEXTS | S |
|  | W |  | W |  | W |  | W |
| SCIENCE <br> FICTION | 6 | SCIENCE | 80 | SCIENCE <br> FICTION | 6 | SCIENCE | 80 |
|  | 12,000 |  | 160,000 |  | 12,000 |  | 160,000 |
| ADVENTURE AND WESTERN | 29 | PRESS REPORTAGE | 44 | ADVENTURE AND WESTERN | 29 | PRESS REPORTAGE | 44 |
|  | 58,000 |  | 88,000 |  | 58,000 |  | 88,000 |
| MYSTERY | 24 | MISCE- <br> LLANEOUS | 30 | MYSTERY | 24 | MISCE- <br> LLANEOUS | 30 |
|  | 48,000 |  | 60,000 |  | 48,000 |  | 60,000 |
| ROMANCE | 29 |  |  | ROMANCE | 29 |  |  |
|  | 58,000 |  |  |  | 58,000 |  |  |
| GENERAL FICTION | 29 |  |  | GENERAL FICTION | 29 |  |  |
|  | 58,000 |  |  |  | 58,000 |  |  |
| 117 SAMPLES |  | 154 SAMPLES |  | 117 SAMPLES |  | 154 SAMPLES |  |
| 234,000 WORDS |  | 308,000 WORDS |  | 234,000 WORDS |  | 308,000 W | RDS |
| 271 SAMPLES 542,000 WORDS |  |  |  | 271 SAMPLES 542,000 WORDS |  |  |  |
| 542 SAMPLES $1,084,000$ WORDS S (SAMPLES); W (NUMBER OF WORDS) |  |  |  |  |  |  |  |

The compilation of the written data has been largely based on Biber's (1988: 127) six dimensions of linguistic variation, which are summarised in Table 18 below. Studies prior to Biber (1988) analysed linguistic variation in terms of single parameters; for example, texts were traditionally considered to be related according to isolated parameters such as formal/informal, interactive/non-interactive, literary/colloquial, or restricted/elaborated. By contrast, Biber argues that linguistic variation is too complex to be analysed in terms of any single dimension, and claims that the relations among texts cannot be defined unidimensionally because comparison of texts with respect to any single dimension gives way to incomplete and sometimes misleading text typologies. Biber's work, in fact, confirms that there is a lack of pure text types and that most texts must be seen as multidimensional. As an
example, fictional texts cannot be simply considered similar to or different from non-fictional texts; rather they are more or less similar or different with respect to each dimension of linguistic variation.

Table 18. Six dimensions of linguistic variation (based on Biber, 1988: 127)

| DIMENSION 1 | Involved versus Informational Production. |
| :--- | :--- |
| DIMENSION 2 | Narrative versus Non-narrative Concerns. |
| DIMENSION 3 | Explicit $\quad$ versus $\quad$ Situation-Dependent |
| DIMENSION 4 | Overt Expression of Persuasion. |
| DIMENSION 5 | Abstract versus Non-abstract Information. |
| DIMENSION 6 | On-line Informational Elaboration. |

Dimension 1 is labelled Involved versus Informational Production and distinguishes discourse with interactional, affective, involved purposes, associated with strict real-time production and comprehension constraints, from discourse with highly informational purposes, which is carefully crafted and highly edited. Dimension 2, Narrative versus Nonnarrative Concerns, distinguishes discourse with primary narrative purposes from discourse with non-narrative purposes, hence dealing with the difference between active, event-oriented discourse and more static descriptive or expository types of discourse. Dimension 3 is labelled Explicit versus Situation-Dependent Reference and distinguishes between discourse that identifies referents fully and explicitly through relativisation, and discourse that relies on nonspecific deictics and reference to an external situation for identification purposes. Dimension 4, Overt Expression of Persuasion, refers to those features associated with the speaker's expression of point of view or with argumentative styles intended to persuade the addressee. Dimension 5 is labelled Abstract versus Non-abstract Information and distinguishes between texts with a highly abstract and technical informational focus and those with non-abstract focuses. Finally, dimension 6 is labelled On-line Informational Elaboration and distinguishes
between informational discourse produced under highly constrained conditions in which the information is presented in a relatively loose, fragmented manner, and other types of discourse, whether informational discourse that is highly integrated or discourse that is not informational.

In addition to multidimensionality, variation is treated as continuously scalar in Biber's analysis. The six parameters, then, define continua of variation rather than discrete poles. For example, although it is possible to describe a text as simply abstract or nonabstract, it seems more accurate to describe it as more or less abstract. The similarities and differences among textual categories can therefore be considered with regard to each of the six dimensions mentioned above. Some textual categories can be similar with respect to some dimensions but quite different with respect to others.

Dimension 2 and dimension 5, that is, Narrative versus Non-narrative Concerns and Abstract versus Non-abstract Information, have been particularly relevant for sampling the written texts used in the present corpus-based study since, as argued by Biber, "they are very powerful predictors of variation among (...) genres" (ibid: 127). ${ }^{26}$ As illustrated in Figure 3 below, the fictional categories, namely Science fiction, Western, Mystery and detective and General fiction score high on the narrative pole of dimension 2 in Biber's analysis. By contrast, the non-fictional categories, Science, Press reportage, and Miscellaneous, have very low scores on this dimension.

[^23]Figure 3. Mean scores of dimension 2 Narrative vs. Non-narrative Concerns - in Biber (1988: 136; emphasis added)

+ NARRATIVE

7-

6-

5-

4-

3-

2-
Biographies
Spontaneous speeches
1-
Humour
Prepared speeches
Personal letters
Press reportage
Popular lore
Face-to-face conversation
Religion; editorials
Interviews
Press review

Telephone conversations
Professional letters
Academic prose ${ }^{27}$
Official documents ${ }^{28}$
Hobbies
Broadcast

- NARRATIVE

Figure 4. Mean scores of dimension 5 Abstract vs. Non-abstract Information - in Biber (1988: 152; emphasis added)

## Academic prose

Official documents

Religion
Hobbies
Press reviews
Press reportage
Professional letters; editorials
0-
Popular lore
Humour; biographies

Broadcasts
Prepared speeches; interviews
General, science, and adventure fiction Mystery fiction; personal letters

Romantic fiction; face-to-face conversations
Telephone conversations

- ABSTRACT

[^24]Following Biber (1988), textual categories with high scores on dimension 2 typically exhibit a high incidence of past tenses, perfect aspect verbs, third person pronouns, communication verbs (e.g. say, discuss, explain, suggest), present participial clauses and synthetic negation, together with markedly infrequent occurrences of present tense verbs. On the contrary, textual categories which rank low on the narrative pole of dimension 2 have the opposite characteristics. As Biber (1988) asserts, "the large separation of the fiction genres from all other genres indicates that the proposed interpretation of a narrative versus non-narrative dimension is an accurate description underlying the function here" (ibid: 137; emphasis added).

Similarly, dimension 5, Abstract versus Non-abstract Information, has also been relevant in the present selection of textual categories from FLOB and FROWN. As Figure 4 shows, the categories Science and Miscellaneous score high on the abstract pole of dimension 5, while Press reportage and the fictional categories have very low scores on this dimension. Biber (1988) interprets these results in terms of a distinction between textual categories with a high degree of abstractness and technical focus, such as Science and Miscellaneous, and categories with a very low degree, Press reportage, or absence of abstractness, Science fiction, Western, Mystery and detective fiction, Romance fiction, and General fiction. Overall, then, those textual categories exhibiting high values on dimension 5 focus on a conceptual or technical subject matter, and characteristically make frequent use of conjuncts, passives, past participial clauses, and certain types of adverbial subordination.

More marginally, dimension 1, Involved versus Informational Production, also supports the approach to the compilation of the written data adopted in the present study. As noted in Figure 5, the non-fictional categories Press reportage, Miscellaneous, and Science have extremely low scores on the involved pole of dimension 1, whereas the fictional
categories, Science fiction, Western, Mystery and detective fiction, Romance fiction, and General fiction, all have moderately low scores.

Figure 5. Mean scores of dimension 1 Involved vs. Informational Production in Biber (1988: 128; emphasis added)

## + INVOLVED OR - INFORMATIONAL

face-to-face conversations

30-

25-

20-

15-

10-

5-
science fiction
religion
humor
popular lore; editorials; hobbies
biographies
press reviews
academic prose; press reportage
official documents
-20-
personal letters
spontaneous speeches
interviews
romantic fiction
prepared speeches
mystery and adventure fiction
general fiction
professional letters
broadcasts

## 路

_ INVOLVED OR + INFORMATIONAL

Categories with very high mean scores on Dimension 1 are characterised by frequent occurrences of mental verbs (e.g. think, feel, etc), that-deletions, present tense, contractions, second person pronouns, together with a markedly infrequent occurrence of nouns, prepositions, long words, more varied vocabulary, and attributive adjectives. Categories with very low scores on this dimension, such as Science fiction, Western, Mystery and detective fiction, Romance fiction, and General fiction have the opposite characteristics, since they show almost no concern for interpersonal or affective content.

On the basis of the three dimensions of linguistic variation discussed above, fictional and non-fictional texts can therefore be expected to exhibit important formal and functional differences as regards the distribution of full inversion in English.

### 3.3.2 SAMPLING THE SPOKEN DATA

The data used for the description of full inversion in speech are reduced to 720,000 words equally distributed between British and American English. As shown in Figure 6, this accounts for $40 \%$ of the total corpus used in this study:

Figure 6. Distribution of the spoken and written data scrutinised in the corpusbased analysis


Written texts
Spoken texts

As Tables 19 and 20 illustrate, the textual categories and samples selected in the spoken part differ for British and American English. This is mainly a consequence of the different types of texts compiled in the ICE-GB and CSPAE corpora (cf. 3.2). Those texts selected for the former include: Public dialogues of Classroom lessons, Broadcast discussions, Broadcast interviews, Parliamentary debates, Legal cross-examinations, and Business transactions, as well as Scripted monologues, that is, Broadcast news, Broadcast talks, Non-broadcast talks, and Unscripted monologues, that is, Unscripted speech, Demonstrations, Legal presentations. The CSPAE compilation, in turn, consists of samples taken from Conference meetings held around the United States and Faculty meetings at the University of North Carolina, which include questions, interactions and involve statements and discussions of political and academic issues.

Table 19. Sources and distributions of the corpus texts selected from ICE-GB

| $\stackrel{1 .}{\text { DIALOGUES }}$ |  |  | 2. MONOLOGUES |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SUBSECTIONS |  |  | SUBSECTIONS |  |  |
| $\begin{gathered} \text { B } \\ \text { PUBLIC } \end{gathered}$ |  |  | $\begin{gathered} \text { B } \\ \text { SCRIPTED } \\ \hline \end{gathered}$ |  |  | $\begin{gathered} \hline \text { A } \\ \text { UNSCRIPTED } \\ \hline \end{gathered}$ |  |  |
| TEXTS | S | W | TEXTS | S | W | TEXTS | S | W |
| Classroom lessons | 20 | 40,000 | Broadcast talks | 20 | 40,000 | Unscripted speech | 30 | 60,000 |
| Broadcast discussions | 20 | 40,000 | Non-broadcast talks | 10 | 20,000 | Demonstrations | 10 | 20,000 |
| Broadcast interviews | 10 | 20,000 | Broadcast news | 20 | 40,000 | Legal presentations | 10 | 20,000 |
| Parliamentary debates | 10 | 20,000 |  |  |  |  |  |  |
| Legal crossexaminations | 10 | 20,000 |  |  |  |  |  |  |
| $\begin{gathered} \text { Business } \\ \text { transactions } \end{gathered}$ | 10 | 20,000 |  |  |  |  |  |  |
| TOTAL | 80 | 160,000 |  | 50 | 100,000 |  | 50 | 100,000 |
|  | 180 SAMPLES360,000 WORDS |  |  |  |  |  |  |  |

Table 20. Sources and distributions of the corpus texts selected from CSPAE

| FACULTY MEETINGS |  | COMMITTEE MEETINGS |  |
| :---: | :---: | :---: | :---: |
| TEXTS | WORDS | TEXTS | WORDS |
| FACMT95 | 51,000 | COMM597 | 93,000 |
| FACMT96 | 45,000 | COMM697 | 110,000 |
| FACMT97 | 66,000 |  |  |
| 160,000 WORDS |  | 200,0 |  |
| 360,000 WORDS |  |  |  |

The spoken corpus used in the present study contains formal dialogues and monologues of both prepared and unprepared speeches of British and American contemporary English. Those texts selected from the CSPAE corpus comprise formal texts of professional American English. Defined negatively, the texts selected from ICE-GB can also safely be described as formal, and in a number of categories they can be regarded as professional English texts.

### 3.4 METHODOLOGY: MANUAL VS. AUTOMATED SEARCHING SYSTEMS

The first step in the analysis has been the retrieval of the full inversion forms. For this purpose, the corpus-based search has been mainly performed manually. Given the size of the corpus, $1,804,000$ words, the use of software tools would have greatly facilitated the retrieval of inverted constructions. Unfortunately, since the FLOB and the FROWN corpora are neither tagged nor parsed, and the CSPAE corpus only tagged, reliable automated analysis of the electronic database has only been possible in the spoken material scrutinised in the parsed ICE-GB corpus.

It has been noted widely that the manual method of collecting data is exceedingly time-consuming (cf. Biber 1995; Mair 1995, 2002, among others) and that the human reader may miss certain tokens because of tedium and lack of concentration since, as pointed out by Kreyer (2004: 98), "reading large amounts of texts is extremely tiresome. (...) An automated
search seems to be far more preferable in this respect". This drawback has been remedied, to a certain extent, by devoting an extensive amount of time to the reading process.

Further, as far as full inversion is concerned, completely successful automated searches are, in my opinion, mainly restricted to parsed corpora. Tagged searches, useful as they may be, suffer from partial blindness and run the risk of missing relevant data, this due to the fact that a particular search string in tagged sequences usually yields a certain amount of junk, that is, results that do not belong to the kind of construction being sought. If the number of such items is extremely high, a laborious and difficult examination process is required which may lead to unreliability due to the above-mentioned limitations of the human researcher. The only way around this problem is to restrict the search string in order to match the most relevant items of the construction, although this may lead equally to non-detection of very specific data. Even complex human-machine tagged searches face the problem of getting relevant instances while, at the same time, keeping the amount of junk within reasonable limits. Kreyer (2004), for instance, admits that in his corpus-tagged analysis:
> (...) it was sometimes helpful to specify a subject immediately following the lexical verb in order to reduce the amount of junk produced by the search string. In such cases, the search strings were held simple in regard to the verb structure, i.e. only one-word verbs allowed. It follows that examples like Behind him was lying a dead animal [an instance of prepositional phrase inversion] were not detected by the search procedure.

Kreyer does not find this restriction to be a problem and argues that "we may assume that the form of the verb phrase does not influence any of the three factors, syntactic weight (...), information status and text structure" (2004: 113). Nevertheless, it seems to me that such issues may threaten the validity of a corpus-based research in terms of quantitative data, and are, moreover, a clear indication of the problems confronted by the researcher in an automated tagged system search of full inversion instances.

### 3.4.1 AUTOMATED SEARCH STRATEGIES: ICE-GB AND ICECUP 3.0

The ICE-GB corpus offers the information needed to identify full inversions easily since it comprises fully tagged and parsed texts. To analyse the texts, the computer program ICECUP version 3.0 has been used. ${ }^{29}$ The use of this tool has proved to be a time-saving and laboursaving method of data collection.

To search for syntactic structures ICECUP uses a technique called Fuzzy Tree Fragments (henceforth FTF). An FTF is simply a template used to match similar structures in the corpus. Every clause in ICE-GB has been syntactically analysed, and the analyses are shown in the form of syntactic trees which consist of several nodes providing grammatical information of the utterance under investigation. The simple FTF illustrated in Figure 7 above, for instance, involves a clause containing tree nodes: a noun phrase subject, followed by a verb phrase and a preposition phrase. Each node provided on the tree comprises three sectors which specify the function, category, and feature labels of the string to be investigated, as illustrated in Table 21 above. The function and category sectors are always labelled, but the features sector of some nodes may be empty if no features are applicable. The highest level function of every tree is the parsing unit (PU), which in the present study has been restricted to a clause level (CL). From this parsing unit spawn different nodes which correspond to different clause constituents. By default, the tree expands from left to right, and from top to bottom.

[^25]Figure 7. A simple FTF in ICECUP


Table 21. The sectors of a node in Fuzzy Tree Fragments techniques

| Function | Category |
| :--- | :--- |
|  | Feature(s) |

### 3.4.2 THE RETRIEVAL OF FULL INVERSIONS ON THE BASIS OF A PARSED CORPUS

As a syntactically analysed corpus, ICE-GB provides the researcher with sufficient information when searching for inverted constructions. With the use of FTF, the six types of full inversions have been easily scrutinised in the corpus with very simple syntactic trees consisting of the main node, and several sister constituents. Figure 8 below shows a brief example of this type of search for inversions. The clause contains a prepositional phrase on her right which has been inverted with the whole verb phrase is standing. This produces the simple structure with the inversion feature represented on the clausal node.

Figure 8. Full inversion in an FTF sample (S2A-019)


A second example, with a simpler verb phrase, is shown in Figure 9. As this contains only a single verb, the inverted operator (INVOP) function with the verb tag may be used. Additionally, the feature sector of the main node is not only labelled with the inverted feature exemplified in Figure 8, but is also given the precs feature (PREPOSED SUBJECT COMPLEMENT), indicating that the subject complement here of the copular verb is has been moved.

Figure 9. Full inversion in an FTF sample (S1A-061)


## 4. FULL-VERB INVERSION IN PRESENT-DAY WRITTEN AND SPOKEN ENGLISH

This chapter analyses full inversion in the written and spoken corpora. For reasons which will be made clear below, the different types of full inversions have been further grouped into two main groups: non-obligatory and obligatory full inversions. Sections 4.1 and 4.2 are devoted to the analysis of the construction in the written and spoken modes respectively. 4.1.1 deals with the distribution of obligatory full inversion in written English, and 4.1.2 deals with nonobligatory full inversion. Section 4.2.1 discusses the distribution of obligatory full inversion in spoken English, and 4.2.2 the distribution of non-obligatory full inversion.

### 4.1 FULL INVERSION IN PRESENT-DAY WRITTEN ENGLISH: OBLIGATORY AND NON-OBLIGATORY USES

The analysis of the written corpora has yielded a total of 438 full inversions, the distribution of which is illustrated in Table 22. This relatively small number of instances was to be expected, since the vast majority of English declarative clauses do not contain postverbal subjects (cf. Biber et al. 1999, Huddleston and Pullum 2002, among others). English is a SVO word-order language in which departures from the canonical order are uncommon, and for this reason the frequency of full inversion and other marked constructions can be expected to be limited overall.

In Table 22, the 438 instances retrieved from the written corpora have been classified into obligatory full inversions (OBL), that is, full-inverted constructions which are obligatorily triggered by certain clause-initial constituents (cf. 1), and non-obligatory full inversions ( $\mathrm{N}-\mathrm{OBL}$ ), as in (2).
Table 22. Distribution of obligatory and non-obligatory full inversion in the written corpora

(1) a. Nor are the monumental display scripts of the two books particularly close. b. * The monumental display scripts of the two books are nor particularly close.
(FLOB, science. J67)
(2) a. On the table are a flask and three glasses of wine.
b. A flask and three glasses of wine are on the table.
(FLOB, adventure and western. N22)

Biber et al. (1999: 915) argue that full inversion differs from subject-auxiliary inversion in that the latter "is obligatory where the triggering elements are found". This claim, however, is not completely accurate as far as the distinction between full inversion and subject-auxiliary inversion is concerned. Firstly, subject-auxiliary inversion is obligatory when the clauseinitial element is a negative or restrictive adverb (cf. 3) or initial only, but it is optional with other fronted elements, as shown in (4), (cf. Huddleston and Pullum, 2002: 96). Secondly, as Dorgeloh (1997: 97) notes, on many occasions opting between full inversion and its canonical counterpart is not a choice available to the addressor, either because the non-inverted version is grammatically impossible or because it would convey a different meaning. In what follows, I give a detailed account of the distribution of obligatory and non-obligatory full inversion instances in the written corpora.
(3) No way would some pro coach, except maybe Jerry Glanville, willingly come to Disneyland and clown with Mickey in front of a pack of reporters and television cameras.
(FROWN, press reportage. A17)
(4) Thus had they departed the previous evening.
[quoted from Huddleston and Pullum, 2002: 96]

As will be discussed at greater length in 4.1.1, the analysis of FLOB and FROWN has yielded 93 obligatory full inversions, all belonging to the adverb phrase inversion type and, marginally, to the subordinator inversion type (cf. Table 22). As Dorgeloh observes (1997: 67), obligatory adverb phrase inversion mainly occurs when the clause-initial constituent is a
deictic adverb, that is, an adverb of temporal or spatial location, such as here, now, there, then, as illustrated in (5)-(8). In such cases, either an alternative with non-inverted word order is grammatically unavailable (cf. (5)-(6)), or there is a sharp difference in meaning between the inverted construction and its canonical counterpart, cf. (7).
(5) Here comes an opportunity for the health services.
(FROWN, reportage. A34)
(6) Then was the red brick library with the twin lion statues flanking the double doors.
(FROWN, romance and love story. P08)
(7) a. Here are the Prophet Elias, the Emperor of the Universe, the Universal Empress, the Empress of Turkey, the only daughter of God Almighty, Queen Elizabeth, four Kings of England, one king of Scotland, the Duke of Kilmarnock, the inventor of perpetual motion, a man who has discovered the new elixir of life... and a lady who daily and nightly has delightful conversations with the Prince of Wales.
b. The Prophet Elias, the Emperor of the Universe, the Universal Empress, the Empress of Turkey, the only daughter of God Almighty, Queen Elizabeth, four Kings of England, one king of Scotland, the Duke of Kilmarnock, the inventor of perpetual motion, a man who has discovered the new elixir of life... and a lady who daily and nightly has delightful conversations with the Prince of Wales are here.
(FLOB, miscellaneous. H26)
(8) Now was the time to follow the advice of the doctor with no name and give his sore leg a rest.
(FROWN, adventure and western. N08)

Examples such as (5)-(6), which are not replaceable in context by a comparable clause with canonical word-order, have traditionally been regarded as instantiations of a particular routine in the spoken language; as argued by Huddleston and Pullum (2002: 1390) they "are comparable to running commentaries, describing a situation that takes place or is taking place as they are uttered". Nevertheless, as illustrated in (5)-(6), this kind of obligatory inversion is also found in written discourse: the clause initial constituent is largely bleached of its spatial or temporal meaning and becomes a stylistic device for presenting particular entities or
events. This formulaic presentative function of inversion is also seen in (7), in which the canonical word-order, though possible, conveys a different meaning. In (7a), here is merely used as a presentative device to introduce new information and could be naturally replaced by a demonstrative (cf. Huddleston and Pullum, 2002: 1390). The unmarked version in (7b) cannot be felicitously used in this way but rather defines a place as proximate to the addressor's point of view; that is, it completes the development of communication within the clause since here represents a specific location.

Obligatory adverb phrase inversion also occurs when the clause-initial constituent is an enumerative listing conjunct (cf. Quirk et al. 1985: 635; see also Biber et al. 1999: 875), as illustrated in (9)-(10). Linking adverbials of this kind, which include ordinal numbers, first, second, third, etc, and adverbs such as finally or lastly, can be used for the enumeration of pieces of information in an order chosen by the addressor, and perform a linking function.
(9) Fifth, and decisively, is the question mark over the real level of support for the Government.
(FLOB, reportage. A06)
(10) First are serious physical assaults and homicides committed against adult lesbians and gay males.
(FLOB, science. J43)

The canonical variants of (9)-(10) differ in meaning from their inverted counterparts and cannot be used in the same linguistic context. Example (11), below, presents a clearer illustration of this difference in meaning. In (11a), clause-initial first and then are adverbial pointers which help to indicate the progression of events and mark the successive stages in discourse. In other words, they cross an illocutionary border and metalinguistically order the level of discourse. This is not the case in (11b), which is why the SVO clause is grammatically acceptable but infelicitous. Here the clause-final then simply conveys a
temporal meaning and denotes that the action takes place at the moment indicated by the addressor, but it does not perform a cohesive function.
(11) a. First, in 1986, came the departure of ACT founder William Ball, who left under what may be charitably called a cloud. Then came the 1989 earthquake, which ravaged the Geary Theatre, ACT's home since 1967.
b. ? The departure of ACT found William Ball, who left under that may be charitably called a cloud, came first, in 1986. The 1989 earthquake, which ravaged the Geary Theatre, ACT's home since 1967, came then.
(FROWN, reportage. A38)

The verbs occurring in obligatory adverb phrase inversion following here, now, there, first, second, third, etc are mainly copular be, go and come, cf. (12)-(14). In inversions with other lexical verbs, the clause-initial constituent conveys a stronger spatial or temporal meaning, that is, it is no longer a listing device and thus the alternative SVO word-order is possible, as illustrated in (15)-(16).
(12) Here are two men approaching 40 who sound like adolescents who have just discovered the world of ideas.
(FROWN, science. J30)
(13) Then came another banging on the door.
(FLOB, general fiction. K10)
(14) Here goes the bus.
[quoted from Huddleston and Pullum, 2002: 1390]
(15) a. Here, in otherwise total darkness, shone a single square of light.
b. A single square of light, in otherwise total darkness, shone here.
(FLOB, adventure and western. N04)
(16) a. Here were kept the English crown jewels pawned to the Templars in 1260 by Henry III to raise funds for his frequent warring expeditions.
b. The English crown jewels pawned to the Templars in 1260 by Henry III to raise funds for his frequent warring expeditions were kept here.
(FLOB, adventure and western. N25)

Adverb phrase inversion is also obligatorily triggered by clause-initial anaphoric or additive so, as in (17)-(18) below.
(17) The inegalitarian nature of public sector employment (...) and demands (...) is unlikely to be unique to India. So is the need to follow proagricultural policies if large welfare gains for the poor are a target.
(FROWN, science. J38)
(18) But whaling was on the decline and so were the fortunes of the Kennedy family. (FLOB, romance and love story. P20)

Here the initial so stands for given information, and has a cohesive effect. Further, its location in clause-initial position emphasises the parallelism between both clauses. The subject, which is the main communicative focus, is placed in end position, in accordance with the principles of communicative dynamism and end-focus. As noted by Biber et al. (1999: 916), this inversion pattern expressing a parallelism can be considered obligatory because there is no completely equivalent canonical word-order; it can merely be paraphrased with subject-verb order plus additive too, i.e. whaling was on the decline and the fortunes of the Kennedy family were too.

Under very specific conditions, however, initial additive and pro-form so allows subject-verb order, as in (19b). The SVO word-order is, however, restricted to instances in which the subject is a personal pronoun and the verb is in end-focus, rather than the subject. In such cases, the effect is not one of adding a proposition parallel to the preceding proposition, as in (19a), but of emphatically affirming the same proposition implied in the preceding clause.
(19) a. She is a very beautiful girl and he is just of the age to be forming romantic attachments. So, of course, is she.
b. She is a very beautiful girl and he is just of the age to be forming romantic attachments. So, of course, she is.

The above-mentioned uses of so as a pro-form or an additive adverb must be distinguished from so followed by an adjective or an adverb as in (20) and (21). In this kind of full inversions, which are never obligatory, the fronted constituent is correlative to a thatcomparative clause.
(20) Among Eire's citizenry who deplored the IRA's methods, so deep was the vein of antipathy for Britain that when two of the accused were hanged in Birmingham in February 1940, almost the entire country mourned them with flags dropping to half staff, theaters closed, and masses offered for the repose of the executed men's soul.
(FROWN, science, J56)
(21) So badly was he affected that he had to be taught to speak again.
[quoted from Biber et al., 1999: 916]

A final type of obligatory adverb phrase inversion is found when additive nor and neither occur clause-initially, as in (22)-(23). These types of clauses are closely related to structures with initial so and, like these, express a parallelism with the preceding negative clause. They can be paraphrased with a subject-verb order clause containing or or either as in (22b), but there is no exact canonical variant.
(22) a. Primrose Cottage, when Pernelle viewed it the next day, was not, as she'd known, as big as Myrtle Cottage. Nor was it in such a good state of repair as Myrtle Cottage, and it in no way came up to Myrtle Cottage.
b. Primrose Cottage, when Pernelle viewed it the next day, was not, as she'd known, as big as Myrtle Cottage. It was not either in such a good state of repair as Myrtle Cottage, and it in no way came up to Myrtle Cottage. (FLOB, romance and love story. P13)
(23) Today's MGM is not the Hollywood powerhouse that Louis B. Mayer operated from 1925 through the mid-'50s. But neither is MGM the industry deadbeat that it had become by 1991.

Finally, obligatory subordinator inversion is basically restricted to inversions in which subordinating as is followed by copular be and the fixed noun phrase the case, as in (24)-(25). Instances such as these are fairly idiomatic constructions in Present-day English. The informational content expressed by the subject, the case, is conventionally postposed and represents structurally fixed information, which, together with as, expresses a parallelism with the preceding clause. As will be noted in 4.1.2, most subordinator inversions are not obligatory as in (26)-(27).
(24) Both the profile and sonic-derived values are significantly smaller than those predicted by Jaeger, as is also the case with the data from Unsworth.
(FLOB, science. J10)
(25) As must be the case in many of the local election now under way "bloody London" - birthplace of the poll tax and instigator of the squeeze on local spending - is probably more crucial to Nottingham than who runs the council.
(FLOB, reportage. A04)
(26) The whole effect was quite beautiful, as was the backdrop on the stage.
(FLOB, romance and love story. P05)
(27) These men were very courageous - as was Sgt King.
(FLOB, reportage. A24)

### 4.1.1 OBLIGATORY FULL INVERSION IN FICTION AND NON-FICTION

As we have seen, the use of full inversion is sometimes not a choice in Present-day written English, since there are contexts in which the canonical word-order is not possible or differs in meaning from the inverted construction. For this reason, obligatory inversions are excluded from the results in many corpus-based studies (cf. Chen 2003; Kreyer 2004, among others), given that there seems to be no linguistic variation involved in the use of the construction. What these studies overlook, however, is that obligatory full inversions, though lacking a canonical word-order version, may vary in terms of their frequency of occurrence in different
genres. The current section therefore provides a description of the distribution of obligatory full inversion in the different textual categories of the written corpora.

Figure 10 below makes clear that there are no dramatic discrepancies between the frequency of obligatory full inversion in the fictional (47 instances / normalised frequency per 100,000 words: 10.03) and non-fictional texts (46 instances / normalised frequency per 100,000 words: 7.46). ${ }^{30}$ These two genres, though, differ significantly in their use of the different types of obligatory full inversion. As shown in Table 23, below, obligatory adverb phrase inversion is more frequently attested in fiction (46 instances / normalised frequency: 9.82) than in non-fiction (39 instances / normalised frequency: 6.33), and obligatory subordinator inversion is restricted almost exclusively to non-fictional texts (7 instances / normalised frequency: 1.13). A more detailed picture of this is given in Table 24, which provides the raw and normalised frequencies of the different obligatory full inversion triggers in the textual categories of FLOB and FROWN. Overall, fiction and non-fiction differ in their distribution of obligatory adverb phrase and subordinator inversion and also in the specific items which trigger these inversions, and this will be discussed in what follows.

[^26]Figure 10. Obligatory full inversion in fiction and non-fiction (frequencies normalised per 100,000 words)

$\square$ fiction $\square$ non-fiction

Table 23. Distribution of obligatory full inversion types in fiction and non-fiction

|  |  | NON-FICTION |  | FICTION |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | SAMPLES | 308 |  | 234 |  |
|  | WORDS | 616,000 |  | 468,000 |  |
|  |  | FREQUENCY |  |  |  |
|  |  | RAW | NORMALISED | RAW | NORMALISED |
|  | ADVERB PHRASE | 39 | 6.33 | 46 | 9.82 |
|  | PREPOSITIONAL PHRASE | -- | -- | -- | -- |
|  | $\begin{gathered} \text { NOUN } \\ \text { PHRASE } \\ \hline \end{gathered}$ | -- | -- | -- | -- |
|  | ADJECTIVE <br> PHRASE | -- | -- | -- | -- |
|  | VERB PHRASE | -- | -- | -- | -- |
|  | SUBORDINATOR | 7 | 1.13 | 1 | 0.21 |
|  | TOTAL | 46 | 7.46 | 47 | 10.03 |

Table 24. Distribution of the obligatory full inversion triggers in the textual categories of the written corpora


Green (1982: 130) argues that inversion with temporal or spatial deictics, such as here, there, now, and then, is "basically an oral language construction". Nevertheless, as the data provided in Table 24 suggest, adverb phrase inversion triggered by temporal or spatial deictics is the most frequent obligatory full inversion type in all textual categories, with the exception of Science. These findings, therefore, are inconsistent with Green's (1982: 130) claim and prove that it is not difficult to find examples of this type of obligatory full inversion in the written language, particularly in fiction (37 examples / normalised frequency: 7.9), but also, to a lesser degree, in non-fiction (17 examples / normalised frequency: 2.7).

In order to clarify why obligatory adverb phrase inversion introduced by temporal and spatial deictics is more commonly attested in fiction than in non-fiction, it is worth noting that, as pointed out in Biber et al. (1999: 795), "conversation and to a lesser extent fiction have especially high frequencies of the adverbs just (in restrictive, not time, sense), now, then, here, and there". What is more, in fiction, the use of here, there, now, and then is similar to conversation "though referring to the fictional world of the text rather than the real world" (ibid: 799). As we shall see in 4.2.1, adverb phrase inversion triggered by here, there, now, and then is particularly common in speech, but conversational features may also be natural in writing when the addressor writes as if he or she were speaking, or wants to reflect direct speech situations. Direct speech contexts in fictional dialogues or first person narrations of the types illustrated in (28)-(31) below favour the use of obligatory inversions triggered by here, there, now, and then. In (28), for instance, the inversion here is your cash is presented through the words of a character - the rabbi - who addresses another participant in the events.
(28)"You have my word, nothing will go wrong."
"Yes, but suppose something unforeseen did," Albert insisted,
"would you return the cash?" "Here is your cash," said the rabbi, handing the teacher the packet of folded bills.
(FROWN, general fiction. K24)
(29) A: "You won't ring me. I'm with William Drake."

B: "Here's my card, you ring me."
A: "Ha! You don't know William Drake, I'm afraid."
(FLOB, general fiction. K19)
(30) "Was this place ever an old schoolhouse?" he asked. "For many years. My greatgrandmother learned the three Rs here. Until twenty years ago the Taters were taught in one-room schools - eight grades in a single room, with one teacher, and sometimes with one textbook. The Spuds got away with murder! ... Here are your capes. I brought six so you'll have a color choice. What are you going to do with them, Mr...."I'm taking them home to friends.
(FROWN, mystery and detective. L01)
(31) "You think Nanette can't see you crouching beneath that chair? Sweet pig, here's a pinch for all the trouble you put me through, here's a pinch for mussing your clothes, and here's a good sharp pinch as a warning. Oh, darling pipkin, don't cry. Nanette doesn't like to see you. Here, Francis, here's a special treat for you today, so wipe the tears from your face and be a soldier like your papa.
(FROWN, adventure and western- N22)

The non-fictional texts are characterised by a lower frequency of "conversational contexts", and thus fewer obligatory inversions triggered by here, there, now, and then are found (cf. Table 24). This is specially the case of Science (2 instances / normalised frequency: 0.62 ), whose texts hardly include interactions or direct speech clauses. Press reportage ( 9 instances / normalised frequency: 5.11) and Miscellaneous (6 instances / normalised frequency: 5) show a higher incidence of this type of obligatory inversion than Science because they are more conversationally oriented. In press reports, as argued by Biber (1988: 191), there is a presence of news analyses but also of narrative texts portions, that is, description of features, acts or events in which direct speech clauses and references to the implied reader are common, as illustrated in (32) and (33) respectively. Miscellaneous comprises some texts which have been written to be read aloud and obligatory adverb phrase inversion triggered by here, there, now, and then are found in contexts where the addressor directly addresses the addressee in the text or in questions, as illustrated in (34).
(32) Because Lincoln Hall was built in the 1960s, Jardine said: "now is the appropriate time to make significant changes".
(FROWN, reportage. A27)
(33) Here's a little quiz, multiple choice: Complete the following sentence: Network television stinks because of: A. Producers. B. Advertisers. C. Networks. D. Dan. E. All of the above. You could make a case for any of these choices, but my pick would be: C. Networks. Let's face it, if you've spent more than 20 minutes in the television business, you know you can run a network better than "those guys." I mean, c'mon, let's be honest about it. If television was a dog, that dog wouldn't hunt. It's not very smart. It's not very funny. It's not very truthful, or very real. It's not very enlightening, and only occasionally thoughtful. In short, it's just not very good. No wonder viewers are deserting the ship. The ship is going down, folks.
(FROWN, reportage. A42)
(34) Let us start with the National Health Service. I announced an increase in plans of pounds 1.5 billion for the NHS - pounds 1.5 billion which will help the NHS upgrade buildings and hospital equipment. Spending on hospital and community health services will rise by more than 5 per cent. in real terms between this year and next, bringing the total real increase in NHS spending since 1979 to well over 50 per cent. We could not have made our commitment to the NHS clearer. What a contrast with the Labour party - the party that cut nurses' pay and, in one year, cut NHS capital spending - hospital building - by 22 per cent. Fine words but poor action from the Labour party. So would the right hon. and learned Gentleman spend more? Now is his chance to tell us how much. [HON. MEMBERS:"Answer."]. We also announced an extra pounds 1.4 billion for British Rail and London Transport. Next year they will invest more than three times as much as they did in 1979. If the right hon. and learned Gentleman were standing here, would he spend more? His hon. Friend the Member for Kingston upon Hull, East (Mr. Prescott) would like, but would he? Now is his chance to tell us how much. [HON. MEMBERS: "Answer."].
(FLOB, miscellaneous. H15)

Obligatory adverb phrase inversion triggered by linking adverbials such as first, second, third, fourth, fifth, lastly, finally has been more frequently attested in non-fiction (8 instances / normalised frequency: 1.29) than in fiction (1 instance / normalised frequency: 0.21 ). As shown in Table 24, Science (6 instances / normalised frequency: 1.86) shows the highest frequency of this type of inversion. This is due to the fact that, as Biber et al. (1999: 880) note, "linking adverbials are considerably more common in academic prose than in fiction. (...) Academic prose uses enumerative (...) adverbials more commonly than other
registers". It is widely accepted (cf. Biber et al. 1999, Hudddleston and Pullum 2002, among others) that an important aspect of academic prose is the presentation of expository information. However, scientific writing is also concerned with the development of arguments, and obligatory adverb phrase inversion triggered by linking adverbials is commonly used for this purpose, as shown in (35)-(36) below. In (36), for instance, the inversions allow the addressor to give a detailed, concise, and temporally structured explanation about the topic of the texts, namely the division of American social classes. The inversions mark the links between ideas overtly and help the addressee to understand better the sequence of facts, since he or she is guided temporally in each step of the discussion, and can easily note the most important statements of the message. Because they explicitly signal the connections between passages, obligatory adverb phrase inversions triggered by linking adverbials are important devices for creating textual cohesion and signalling the macrostructural sectioning of the text in scientific discourse. In fictional texts, by contrast, the relationship between ideas is left implicit or encoded in ways other than linking adverbials. The clear, linear development of arguments is rare in fiction, where topics are less structurable, and thus fewer obligatory adverb phrase inversions triggered by linking adverbials are needed, because sequences of facts are easily inferable from the background knowledge of most readers.
(35) Because relevant statistics are few, we divide gay-bashing incidents into three types based on the age of the victim. First are serious physical assaults and homicides committed against adult lesbians and gay males such as those reported in the House Criminal Justice Subcommittee hearings on Anti-Gay Violence (Committee on the Judiciary, 1986). These reported assaults are clearly the most serious ones and do not include the common, random beatings of homosexuals that occur in the streets, parks, and parking lots of America. Most assaults go unreported either because the victim fears being discredited by family, the law, or employers or because the assault was less serious, although still criminal. Second are assaults and related harassments of lesbian and gay male adolescents by their peers, such as those that gave rise to the Harvey

> Milk School in New York City for homosexual adolescents. The existence of such a school implies that mistreatment of homosexual adolescents is pervasive in the adolescent world. Finally, probably far more common than either of the other forms of assault and harassment are the beatings of effeminate boys, both future homosexuals and heterosexuals (Saghir \& Robins, 1973, pp. 18-23) that occur during childhood. These beatings occur because the boys do not confirm to the extremely rigid rules of the male gender role.

(FROWN, science. J43)
(36) For purposes of analysis, it is often helpful to divide American society into five social classes. At the top is a very small upper class, or social elite, consisting chiefly of those who have inherited social privilege from others. Second is a larger upper middle class, whose members often are professionals, corporate managers, leading scientists, and the like. This group usually has benefited from extensive higher education, and while family history is not so important, manners, tastes, and patterns of behavior are. The third (or middle) social class has been called the lower middle class. Members of this group are largely people employed in white-collar occupations earning middle incomes - small business owners, teachers, social workers, nurses, sales and clerical workers, bank tellers, and so forth. This is the largest of the social classes in the United States and encompasses a wide range of occupations and income. (...) Fourth in the hierarchy of social class is the working class, whose members are largely blue-collar workers (industrial wage earners), or employees in low-paid service occupations. Working-class families often have to struggle with poor job security, limited fringe benefits, longer hours of work, and more dangerous or 'dirtier' work than those in the classes above them. It is not surprising, then, that members of the working class often feel more alienated from the social mainstream. Finally, fifth in the hierarchy is the lower class - the so-called working poor and those who belong to what has been termed the underclass - a designation that refers to people who have been in poverty for so long that they seem to be unable to take any advantage at all of mobility options and thus lie 'below' the class system.
(FROWN, science. J49)

According to Green (1982: 130), "inversion after pronominal so and neither (...) seems to be much more frequent in speech". The current analysis, however, shows that these constructions may also be attested in writing. There are no important discrepancies between the frequency of obligatory adverb phrase inversion triggered by clause-initial so, neither and nor in fiction (8 instances / normalised frequencies: 1.7) and non-fiction (14 instances / normalised frequencies: 2.27). Nevertheless, as illustrated in Table 24, this type of obligatory full inversion is more frequently attested in Science (10 instances / normalised frequency:
3.12) than in the remaining categories. Obligatory adverb phrase inversions triggered by so, neither or nor are used as ways of mentioning facts in argumentative scientific discourse. The addressor shapes the events or relations from the outside world into a form which fits the intended reasoning, as illustrated in (37) or in (38). The inversion in (38), for instance, does not express relations from within the scene but is useful for signalling connections between specific information in the development of the author's argument. The remaining categories are less argumentative in nature, and show a lower incidence of obligatory adverb phrase inversions triggered by so, neither or nor (cf. Table 24).
(37) Changes of this sort will not happen automatically or easily. Even when reforms begin, desirable as they would be, major changes in either markets or policy are unlikely in the short run. Neither is any set of partial reforms likely to 'solve the poverty problem.' Cognizant of these severe limitations, in this chapter we aim to be practical, to search for means by which - at the least - the serious problems of urban poverty will get written prominently into the political agenda.
(FROWN, science. J45)
(38) Conservative efforts in 1990 to temper the effects of the poll tax and to slow down the implementation of NHS reform are evidence for the robustness of the Downsian median. So are the strenuous efforts of Neil Kinnock to lead the Labour Party to it.
(FLOB, science. J41)

As noted in Table 24, obligatory full inversion in which subordinating as is followed by copular be and the fixed noun phrase the case is found mainly in the non-fictional texts (7 instances / normalised frequency: 1.13), where it is almost exclusively restricted to Science. Scientific discourse is characterised by its function of evaluating and explaining arguments and, as Biber notes (1988: 151), it is highly abstract and technical in nature, making frequent use of certain types of adverbial subordination, among which comparative clauses introduced by as figure prominently. Obligatory subordinator inversion triggered by as and followed by copular be and the fixed noun phrase the case is used idiomatically in scientific discourse for
the comparison of data and arguments, as illustrated in (39)-(40) below. The comparison of ideas, concepts or results is not normally needed in fictional discourse and obligatory subordinator inversion is hardly used.
(39) There was no segment with acquired immunity, as was the case with most other British Columbia Indian Populations.
(FROWN, science. J62)
(40) Both the profile and sonic-derived values are significantly smaller than those predicted by Jaeger, as is also the case with the data from Unsworth.
(FLOB, science. J10)

### 4.1.2 NON-OBLIGATORY FULL INVERSION IN FICTION AND NON-FICTION

In recent years, non-obligatory full inversion has received considerable attention from a corpus-based perspective (cf. 2.1). Nevertheless, there does not seem to be complete agreement as regards its distribution in fiction and non-fiction. Some studies suggest that the construction is more frequent in fiction (cf. Green 1982; Dorgeloh 1997; Denison 1998, among others); Biber et al. (1999: 926), for instance, argue that "inversion is more frequent in the written register than in conversation, with the highest frequency in fiction. Subject-verb inversion is more common in fiction particularly for the description of settings, where inversion is a natural choice". Conversely, in studies such as that of Kreyer (2004: 114), it is argued that full inversion is much rarer in fiction than in scientific texts (cf. 2.4). This lack of consensus is apparent even in the arguments supporting such contradictory claims. Thus, whereas Kreyer (2004: 173) attributes the high proportion of full inversions in academic prose texts to the fact that academic prose is complex from a structural point of view, Dorgeloh (1997: 162) uses the very same argument to explain the low proportion of full inversion in the academic prose of her corpus sample. The current section, then, provides a description of the distribution of non-obligatory full inversion in the different categories of the written corpora,
in order to clarify whether the construction is more frequent in fiction or non-fiction. Clearly, skewed statistical differences, arrived at for merely descriptive purposes, are of little interest here. Yet such statistics may allow us - or even oblige us - to formulate more appropriate questions in the analysis, and, in doing so, to reach a deeper understanding.

As Figure 11 below illustrates, there are no dramatic discrepancies between the frequency of non-obligatory full inversion in the fictional (129 instances / normalised frequency: 27.56) and non-fictional texts (216 instances / normalised frequency: 35.06). As shown in Figure 12, broadly similar frequencies of non-obligatory full inversion are also found in the different textual categories of both genres.

Figure 11.
Non-obligatory full inversion in fiction and non-fiction (frequencies normalised per 100,000 words)


Figure 12.
Non-obligatory full inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)


The fictional texts analysed in the current study comprise Present-day English narrations. A narration is a recounting of what has taken place. It is the type of textual communication in which the writer selectively deals with factual or conceptual phenomena in time and space. As Biber et al. (1999: 926) note, "in general we may assume that writers of fiction make more use of the resources of the language", and this should also involve the more frequent use of an XVS syntactic arrangement. For rhetorical and stylistic reasons, we would therefore expect non-obligatory full inversion to be more common in fiction than in non-fiction. In order to clarify why this has not taken place, it seems worth analysing the distribution of the different types of non-obligatory full inversion in the corpora.

The analysis of FLOB and FROWN has provided 345 non-obligatory full inversion instances, which are distributed among the different full inversion types, as illustrated in Figure 13 below. Prepositional phrase inversion (152 instances) is the most frequent type. The remaining five types are less frequently attested and, with the exception of subordinator inversion (16 instances), they are almost evenly distributed: adverb phrase (38 instances), noun phrase (49 instances), adjective phrase (47 instances), and verb phrase (43 instances). Such a preponderance of prepositional phrase inversion in written discourse is well-attested in the literature (cf. Birner 1996; Dorgeloh 1997; Chen 2003; Kreyer 2004).

Figure 13.
Non-obligatory full inversion types in the written corpora


As illustrated in Figure 14 and Figure 15 respectively, fiction and non-fiction differ in their distribution of the different non-obligatory full inversion types. The fictional texts (cf. Figure 14) show a strong preference for the use of prepositional phrase inversion, which represents more than half of the tokens (16.66). The other types of full inversion, in comparison, are found more rarely and, with the exceptions of adverb phrase inversion (5.34) and verb phrase inversion (3.41), their figures are of marginal importance. This is especially
the case of noun phrase inversion, which is hardly found at all in the fictional texts (0.21). By contrast, the distribution of full inversion types is more even in non-fiction (cf. Figure 15). Prepositional phrase inversion (12.01) is also the most frequent type, but it is rivalled by noun phrase inversion (7.79) and, more marginally, by adjective phrase inversion (6.65). Verb phrase (4.38), adverb phrase (2.11), and subordinator inversion (2.11) show, however, lower percentages.

Figure 14.
Non-obligatory full inversion types in fiction (frequencies normalised per

100,000 words)


Figure 15.
Non-obligatory full inversion types in non-fiction (frequencies normalised per 100,000 words)


These findings on the distribution of full inversion resemble findings in Kreyer (2004), where full inversion is analysed in a larger corpus of $3,200,000$ words (cf. 2.4). The present corpus-based analysis has therefore reached the freezing point (cf. Raumolin-Grumberg, 1991: 54), since the addition of text material does not appear to change the distribution in any relevant way. Both the corpora and the results, then, adequately represent the frequency and distribution of the different types of full inversion in Present-day English fiction and non-
fiction. In order to clarify why the distribution differs to the extent illustrated in Figures 14 and 15 , a more detailed analysis of the different full inversion types in both genres is provided below.

### 4.1.2.1 PREPOSITIONAL PHRASE, ADVERB PHRASE AND VERB PHRASE INVERSIONS IN FICTION AND NON-FICTION: SPATIAL EXPERIENTIAL ICONIC MARKERS AND TEXT-STRUCTURING DEVICES

As the comparison of Figure 14 and Figure 15 above reveals, adverb phrase inversion takes place more frequently in fictional text styles than in non-fictional ones, for reasons which will be explained presently. This higher frequency is also notable in the individual analyses of the different categories in the corpora, as illustrated in Figure 16, below. With the exception of Science fiction, frequency of occurrence is consistently higher in fictional than non-fictional categories, with General fiction (7.75) and Adventure and Western (6.31) showing the highest frequencies. In addition to statistical differences, the data also show that the type of clause initial adverb in non-obligatory adverb phrase inversion differs in both genres. The fictional texts show a strong preference for the use of adverbs with spatial meaning, as illustrated in (41)-(48), and directional adverbs, as in (49)-(50), whereas the non-fictional texts comprise adverb phrase inversions introduced by additive (51), negative (52) and, especially, linking adverbs (53). Descriptions with place adverbials are particularly common in fiction, where scenes are constantly introduced, and this explains the high proportion of non-obligatory adverb phrase inversion triggered by spatial adverbs in this genre. By contrast, in non-fiction there is less need to introduce new scenes. This is not surprising, since academic and official texts are most often concerned with the description of non-physical concepts, ideas, arguments or explanations rather than with the description of physical or temporal settings. The non-fictional texts include less spatial, physical and temporal
descriptions, and fewer non-obligatory adverb phrase inversions introduced by spatial adverbs are found.

Figure 16.
Non-obligatory adverb phrase inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)

(41) There, sitting in the window seat - her favourite position - was Elizabeth.
(FLOB, romance and love story. P17)
(42) Here, in otherwise total darkness, shone a single square of light.
(FLOB, adventure and western. N04)
(43) And there was Ben, looking authoritative but unstuffy in a grey wool suit.
(FLOB, adventure and western. N07)
(44) I open it up and there, in its fusty-smelling blue velvet bed, is the dulled but still eloquent brass gleam.
(FLOB, adventure and western. N15)
(45) Every now and then whined a fly and was sucked into the past with dizzy speed.
(FLOB, general fiction. K02)
(46) Upstairs was a bedroom and a bathroom.
(FLOB, romance and love story. P13)
(47) Inside was a single sheet of paper that looked just like the others.
(FROWN, mystery and detective fiction)
(48) Beyond were the huge ranches and a smattering of stately southern homes.
(FROWN, romance and love story. P08)
(49) In went the elder O'Brien with his son coming close behind.
(FROWN, adventure and western. N04)
(50) Down came the rabbi's eyelid.
(FROWN, general fiction. K24)
(51) Even more are they begetters of their song (...).
(FLOB, science. J61)
(52) Not officially part of the tour is CityArts, the city of Phoenix's Visual Arts Gallery at 214 E. Moreland St.
(FROWN, reportage. A42)
(53) Thus can be realized the first result of having such large deformations.
(FLOB, science. J71)

As the comparison of Figure 14 and Figure 15 in section 4.2 .1 makes clear, prepositional phrase inversion also occurs more frequently in fictional text styles than in nonfictional ones. This higher frequency is even more notable in the individual analyses of the different categories in the corpora, as illustrated in Figure 17 below. With the exception of Press reportage (18.18), frequency of occurrence is consistently higher in fictional than nonfictional categories, with General Fiction (23.27), Adventure and Western (16.37) and Mystery and Detective fiction (18.75) showing the highest frequencies. In addition to statistical differences, the data also show that the type of prepositional element placed in clause-initial position differs in fiction and non-fiction. Fictional texts, which tend to contain substantial reference to past time and places (cf. Biber 1988), show a strong preference for the use of prepositional phrases conveying a locative meaning, as illustrated in (54)-(59) below. Locativity is inherent to fiction because spatial and temporal reference is not an optional or

Figure 17.
Prepositional phrase inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)

peripheral feature of narration but a core property that helps constitute narrative domains (cf. Herman 2001). ${ }^{31}$ In (54)-(59), for example, the themes provide a psychological landmark, since fiction is characterised by a regular introduction of new scenes with their internal topography. This is also the case in Press reportage, though to a more limited extent, where the locative use of prepositional phrase inversion is justified because reportage includes nonnarrative text portions, such as news analyses, but also narrative-text portions with physical or temporal descriptions (cf. Biber, 1988: 191), as can be seen in (60).
(54) On its edge stood a squat, dirty little town.
(FROWN, science fiction. M06)
(55) In the middle was a circle of hard light, glaring, like the light in the dusty street.
(FLOB, adventure and western. N11)
(56) Behind the desk sat Alex studying a large atlas.
(FLOB, mystery and detective. L16)

[^27](57) On the back seat was a heap of packages.
(FROWN, romance and love story. P17)
(58) Near the window is a built-in display cabinet with willow-pattern plates.
(FROWN, general fiction. K25)
(59) He leaned back to look at them. The five animals stood in a row, as though about to enter a pipe-cleaner ark. At the back was the biggest and most elaborate: a giraffe made from perhaps twenty pipe-cleaners, with an elaborately plaited neck and one of its back legs wittily cocked like a dog. In front of that came an elephant with a long, baroque trunk, and a snake that MacCready had arranged so that it was slithering over the rim of an ashtray, (...) and at the front was something that I couldn't at first identify consisting of elegant swirls topped by a strange horned head.
(FLOB, general fiction. K11)
(60) A thoroughly normal living room is utterly changed by the invasion of a train, miniature in scale, but real. What makes the incongruous juxtaposition surreally logical is that the opening of the fireplace resembles the mouth of a railroad tunnel. All the elements of the pared-down picture contribute to its theme. On the mantel is a clock with its time stopped at 12:43 - has the train arrived on time? On either side of it are two candlesticks empty of candles, traditional symbol in still lifes of the irredeemable passage of time. Magritte is saying he doesn't need to fall back on such hackneyed symbols to make his point. Behind the clock is a mirror that reflects the clock's back and one of the candlesticks, but which otherwise reflects only the gray nothingness of the room, the existential void that is always the real subject of Magritte's paintings.
(FROWN, reportage. A38)

By contrast, the remaining non-fictional texts, Science and Miscellaneous, make less use of prepositional phrase inversions triggered by a locative constituent, mainly because they include fewer spatial, physical and temporal descriptions, which are the linguistic contexts in which these inversions tend to occur. In other words, in these texts there is less need to introduce scenes from new, previously unshared fictive worlds. There is less scope for narration and description, because in general the texts contain expository or procedural information and "descriptions of what to do, rather than what somebody else has done" (Biber, 1988: 138). Therefore, the fronted element in the prepositional phrase inversions found in

Science and Miscellaneous does not normally convey a locative meaning, but is rather an abstract prepositional phrase, as in (61)-(66).
(61) Of more immediate relevance are certain parallels to be seen in the decoration of a few English manuscripts of late eleventh-century to early twelfth-century date.
(FLOB, science. J67)
(62) Of more interest in the present context, however, is an experimental situation in which the admission process is not fast, but becomes comparable or even slower than the reaction timescale.
(FLOB, science. J06)
(63) This week alone, Toshiba of Japan announced price cuts of 30 per cent across its range in the UK; Compaq said it would cut 25 per cent off its notebook computers in the US; while Copam, a leading Taiwanese maker, said it would sell a top-of-the-line machine for under pounds 2,000. A similar computer from IBM is listed at more than pounds 8,000 . Of just as much significance is the decline in brand loyalty.
(FLOB, miscellaneous. H28)
(64) With him on the brief were Ralph G. Steinhardt, Robin S. Toma, Mark D. Rosenbaum, John A. Powell, Steven R. Shapiro, Kate Martin, and Robert Steinberg.
(FROWN, miscellaneous. H16)
(65) Of interest is the observation that on day 7 , only $43.6 \%$ of the uterine horns were positive for pathology whereas $63.8 \%$ were isolation positive.
(FLOB, science. J12)
(66) Of particular note is the effort now being made to care for the victims of domestic violence.
(FROWN, miscellaneous. H09)

As discussed by Chen (2003), full inversion with a preposed locative constituent is the most common type of full inversion in written English, and indeed is the prototypical form (cf. 2.5). Both adverb phrase and prepositional phrase inversions have traditionally been considered the best examples of so-called 'locative inversions' (cf. Coopmans 1989; Bresnan 1994, among others). Since fictional discourse is more locative-oriented than non-fictional
discourse, it comes as no surprise that these types of full inversion are more common in fiction than in non-fiction.

As shown in Figure 18 below, there are not important differences between the frequency of verb phrase inversion in the fictional and non-fictional categories. Both text styles differ significantly, however, in the clause-initial constituent which triggers the inversion. In fiction, the preposed constituent very often contains a locative prepositional or adverb phrase attached to the present or past participle form, as in (67)-(69) below, which normally reports a spatial position in a given context, cf. (70)-(74). In non-fiction, the clause initial constituent does not normally include any locative prepositional or adverb phrase attached to the present or past participle form, as in (75)-(79), which typically reports a particular state that exists between entities - include, correspond, contain, involve, etc - as illustrated in (80)-(82).

Figure 18.
Verb phrase inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)

(67) Looming above them were the hulls of two Altan stock boats.
(FROWN, general fiction. K17)
(68) Standing behind was a flock of birds.
(FLOB, adventure and western. N16)
(69) Arrayed on the tray were plate and napkin, a glass of orange juice, two parts of butter on a saucer, and a rose the color of a coral in a crystal vase.
(FROWN, general fiction. K05)
(70) Standing grim and alone a mile out on the flat was the hulking eyesore of the territorial prison.
(FROWN, adventure and western. N06)
(71) Sir Augustus Falconer had arrived. He drove a curricle, with a tiger on the step. Following was a closed carriage from which an upper servant descended, his nose quite out of joint at the lack of pretension in the house to which they'd come.
(FROWN, romance and love story. P14)
(72) Facing the mirror hung a picture of a little boy urinating in an arc while a little girl looked on admiringly.
(FROWN, general fiction. K23)
(73) On his way to the fountain, Browne heard something like a sensual moan from the area behind the crates. Looking more closely, he saw the balding head of a middle-aged man above one rank of boxes. Extending from the boxes along the floor was a woman's foot with a tanned ankle and sneaker.
(FROWN, general fiction. K27)
(74) Standing behind them was the music teacher, a gentleman of noble appearance in his early fifties.
(FLOB, adventure and western. N 22 )
(75) The organizations could reflect on their shared experience and define the main issues. Participating organizations were the Bedford Stuyvesant Restoration Corporation (BSRC); the Mexican American Unity Council (MAUC), from San Antonio; Mississippi Action for Community Education (MACE), from Jackson; the Spanish-Speaking Unity Council (SSUC), from Oakland, Calif.; Watts Labor Community Action Committee (WLCAC), from Los Angeles; New Community Corporation (NCC), from Newark, N. J.; and Chicanos Por La Causa (CPLC), from Phoenix, Ariz.
(FROWN, miscellaneous. H25)
(76) Accompanying the Strategy are lists of definitions and acronyms in common usage throughout the document, and general references.
(FROWN, miscellaneous. H15)
(77) Table 1 shows that total benefit expenditure is estimated to increase by pounds 4051 million between 1990-91 and 1991-92, i.e. pounds 830 million in excess of the cost of the uprating Underlying the benefit estimates are increases in the numbers of retirement and invalidity pensioners and unemployment benefit recipients, though the number of widow pensioners is expected to continue to decline.
(FLOB, miscellaneous. H05)
(78) Also highlighted is the importance of analyzing children's language in the context of conversational turns in order to develop a fuller interpretation of utterances.
(FROWN, science. J29)
(79) Thus cavorted Karena Brock-Carlyle, her husband John Carlyle and Gaye Baxley Manhatton.
(FROWN, reportage. A41)
(80) Included are his seldom-seen and highly twisted essays in impressionism and the crude jokester works he called his vache (cow) paintings done during the late ‘40s in occupied Brussels.
(FROWN, reportage. A38)
(81) Corresponding to each flat connection is the operator D.A.
(FROWN, science. J19)
(82) Underlying India's dismal productivity growth performance are structural and intrasectoral distortions.
(FROWN, science. J38)

As will be noted in what follows, the different clause-initial constituents in prepositional phrase, adverb phrase and verb phrase inversion in fiction and non-fiction entail important differences in the pragmatic use of these constructions in both text styles.

Over the last few decades, many linguists have come to support the view that language is closely interrelated with human cognition and perception (cf. Langacker 1987; 1991; Croft 1990; Ungerer and Schmid 1996; Tomasello 1998). It has been argued (cf. Dorgeloh 1997; Kreyer 2004) that in spatial descriptions the distribution of information in adverb phrase, prepositional phrase and verb phrase inversion reflects the way in which a scene is observed. The fronted constituent points to a particular location, which represents given information,
and guides the addressee's focus of attention in that direction. Once the location expressed by the fronted element is established, the addressee can focus 'more easily' on the postposed subject, which introduces the new information. Starting from this assumption, the analysis of FLOB and FROWN makes it clear that, in fiction, the use of adverb phrase, prepositional phrase and verb phrase inversion is related to the Principle of Experiential Iconicity postulated by Enkvist (1981). This principle is derived from C. S. Peirce's notion of 'icon' (cf. Peirce: CP 2.247 and 2.274ff.) and has to do with the ordering of the elements within a linguistic unit which reflects experiences of the physical world. According to Enkvist, the text "becomes a portrait of our experience of the world" (1987: 207). This fact is also observed by Greenberg (1966: 103), who claims that "the order of elements in language parallels that in physical experience", and by Halliday (1994: 106), who argues that the experiential function concerns the clause in "its guise as a way of representing patterns of experience". In his taxonomy of signs, Peirce distinguishes three types of iconicity: images, diagrams and metaphors (Peirce: CP 2.277). According to Peirce, an iconic image is a single sign which resembles its referent with respect to some characteristic. Clear examples of this kind of iconicity are photographs, statues etc. An iconic diagram is a systematic arrangement of signs, none of which necessarily resembles its referent, but whose relationships to each other mirror the relationships of their referents. Examples of this type of iconicity are a football line-up and a radio circuit. Finally, metaphors are signs representing a "parallelism in something else", according to Peirce. In more recent work on iconicity in language, notably that of Haiman (1980: 516-517), two types of diagrammatic iconicity are distinguished: isomorphism and motivation. The former codes the tendency for there to be a one-to-one correspondence between form and meaning. The latter is related to the reflection in linguistic structure of
some aspect of the structure of reality. Enkvist's experiential iconicity must be understood as a type of diagrammatic motivation in Haiman's sense.

Enkvist (1981) distinguishes three major types of experiential iconicity in language: social, temporal, and spatial, as illustrated in (83)-(85) respectively:
(83) Ladies and gentlemen, you will note from the Chairman's introduction that my background is in aircraft maintenance.
(FLOB, science. J77)
(84) Susan and Tom got married and had a baby.
[adapted from Enkvist, 1984: 56]
(85) In the west aisle are monuments to Sir Ralph Abercromby (1734-1801) and to Sir John Moore (1761-1809), who died at Corunna. To the left above is a memorial by Princess Louise, to the Colonial Troops who fell in the South African War.
[quoted from Enkvist, 1981: 99]

In (83), the linear order of the elements in the noun phrase "ladies and gentlemen" reflects a social order of politeness by which ladies are mentioned before gentlemen in this idiomatic structure. Similarly, in (84) the elements in the clause are ordered in the same way as their referents in the world of things and the world of events; the addressor is temporally instructing the reader that Susan and Tom got married first and only afterwards did they have a baby. Finally, in (85) the writer indicates the order of operations in different spaces; through the use of thematisation he moves the addressee's attention from one place to another and implicitly instructs them to "take a look first at the monuments in the west aisle, and then look left above to see the memorial". Through this mimetic or experiential order (cf. Enkvist, 1981: 101) the text becomes an icon of experience. On the basis of FLOB and FROWN, the adverb phrase, prepositional phrase and verb phrase inversions found in fiction are clear examples of spatial experiential iconicity. The process of perception in real life functions in such a way that viewers perceive the salient entities first, and only afterwards do they focus
on particular entities or particular parts of these salient entities. However, this is done in a spatial context which is not only essential in the interpretation of the figure but is also normally experienced or shared in the knowledge of both addressor and addressee. In fictional descriptions, conversely, this shared knowledge of the context does not necessarily exist, and the importance of the context is conspicuously mirrored in the syntax by the writer through the iconic fronting of locative adverb phrases and prepositional phrases and the postponement of the subject, as shown in (86)-(88) below.
(86) A terrace of Georgian houses glowed in the evening. The air raid was late tonight. In front of the houses stood a row of To Let signs. I was led down some iron Steps and into a low, dark basement with stone paving on the floor. Around the walls were four or five mattresses, heaps of bedding, and an old sofa with the stuffing coming out. In the middle of the room was a table, at which sat a longhaired man, a woman who had once been pointed out to me in the Belgravia as MacCready's 'model', and the mysterious visitor.
(FLOB, general fiction. K11)
(87) Lying crushed at the shattered side of the passage and half covered in rock dust was the precious roll of the mine charts.
(FLOB, adventure and western. N16)
(88) Inside, sure enough, were a couple of cameras and a flash unit padded in a foam rubber mould..
(FLOB, mystery and detective. L15)

As can be seen in (86), every time the narrator introduces new features of the place being described, a spatial theme is selected (signalled in bold in the text here). Each prepositional phrase provides a background for a new micro-event, and, as Cornish (2005: 188) notes, allows "an inferential relation in terms of the place or time at which the state of affairs is situated, with respect to a place or time accessible within the prior context of occurrence of the construction". The succession of spatial themes is the linguistic realization of a global spatial strategy chosen by the writer to guide the reader throughout the text, where he provides him with the physical schema needed to anchor the specificity of the events. In this
sense, the writer creates an adequate spatial framework to locate the reader, before providing him with all the information about the particular place which is described, making - in Enkvist's terminology - the text mimetic with the way viewers experience the importance of spatial context in real-life. The inversions reflect the structure of the perception of a particular setting as someone experiencing the fictional world might, since the context is provided first, and coerces the interpretation. As a consequence, what is being communicated is made transparent for the reader, since, as Givón (1985: 189) notes, "a coded experience is easier to store, retrieve and communicate if the code is maximally isomorphic to the experience in the real world". Under these circumstances, then, the adverb phrase, prepositional phrase, and verb phrase inversions used in fiction can be considered markers of spatial experiential iconicity in discourse: the order of the constituents iconically resembles the importance of the spatial context in the interpretation of what is being described. Focussing on the context first is essential for contextualising the figure.

The above-mentioned spatial experiential iconic use of adverb phrase, prepositional phrase and verb phrase inversions in fiction has also been attested in Press reportage, although to a lesser degree. Reportage is concerned with news analyses but also involves the description of settings and physical entities, which justifies the experiential iconic use of these constructions here, as illustrated in (60), repeated here for convenience:
(60) On the mantel is a clock with its time stopped at 12:43- has the train arrived on time? On either side of it are two candlesticks empty of candles, traditional symbol in still lifes of the irredeemable passage of time. Magritte is saying he doesn't need to fall back on such hackneyed symbols to make his point. Behind the clock is a mirror that reflects the clock's back and one of the candlesticks, but which otherwise reflects only the gray nothingness of the room, the existential void that is always the real subject of Magritte's paintings.
(FROWN, reportage. A38)

In (60), where the writer describes the arrangement of objects on a mantelpiece, three entities are described: the clock, the candlesticks, and the mirror. In clearly marked steps, these entities are introduced into the discourse one after another, beginning from the front of the mantelpiece - the clock and the candlesticks - and finishing at the back - the mirror behind the clock. Further, the clock, which is the most significant element in the description, is presented first, and afterwards the narrator scans the situation "beside it" and "behind it". It seems clear then that the description is a precise linguistic representation of the way viewers would approach the scene in real-life perception: we focus first on a nearby object, and then our attention wanders to more distant objects. It is this perceptual experience which can be observed as an important shaping factor in the textual progress and coherence of the description. Contiguity in discourse mirrors contiguity in perception in these prepositional phrase inversions, and it is the XVS syntactic arrangement with a fronted locative constituent that contributes to such a process. The different inversions are therefore ground-promoting structures which are used to anchor the events in the spatial descriptive process.

The texts in categories Science and Miscellaneous, by contrast, make a less consistent use of adverb phrase, prepositional phrase and verb phrase inversions as markers of spatial experiential iconicity in the sense discussed above, mainly because these texts are less concerned with spatial or physical descriptions. As a consequence, the writer is in less need of matching his linguistic representation to the way of presenting the physical perception of reality, and thus fewer adverb phrase, prepositional phrase, and verb phrase inversions with a spatial clause-initial constituent are used. As illustrated in (89)-(90), below, in Science and Miscellaneous these inversions also convey an iconic meaning, but this differs from that discussed for fiction. As suggested by a number of linguists (cf. Haiman 1985, among others), one of the universal principles motivating word-order is that old information comes first in an
utterance and is followed by new information. In this sense, the inversion in (89) is iconic in that the temporal order of the constituents in the utterance reflects the temporal order of the introduction of information in discourse. In other words, the inversion serves to place the old information - this (a change in the variability in landing position) - in clause-initial position, and to link it to the new information - the possible effect of interference during a saccade which is introduced and placed in clause-final position. This is also noted in Biber et al. (1999: 914), who argue that examples such as those mentioned below "generally contain anaphoric links with the preceding text". In other words, adverb phrase, prepositional phrase and verb phrase inversions of this kind perform a text-structure function in these categories, since the fronted element serves as a link to the previous discourse, as further illustrated in (91)-(93). In (91), for instance, among those who endorsed the appeal must be considered given information, because even though the process of endorsement has not been mentioned before, it is established in relation to a previously mentioned item, the appeal, which represents given information, and links the new information - the postposed subject - to the previous discourse. The informational value of the subject is normally high and typically denotes a listing of entities, facts, or events which are introduced for the first time in the discourse. In (92)-(93), the clause-initial prepositional phrases are deprived of their locative meaning, that is, they no longer represent a physical space but merely serve as cohesive ties by which contrast is expressed in the development of the argument, also orienting the reader towards the main points that the writer puts forward. They do not contain, however, the presentation of spatial perspective found in fiction.
(89) On the other hand, if the effects of premature triggering on saccades of normal extent is to increase the frequency of both under - and over-shoot, the overall result will be a change in the variability in landing position. To this will be added the possible effect of interference during a saccade.
(90) Complicating the issues of social class is the fact that in the United States there is a large overlap between lower-middle class, working-class, and lower-class membership and membership in minority groups.
(FROWN, science. J49)
(91) The appeal stated that women's direct participation in politics "is made impossible either by the disabilities of sex, or by strong formations of custom and habit resting ultimately upon physical difference, against which it is useless to contend." Among those who endorsed the appeal were Beatrice Webb, Mrs. Humphry Ward, Eliza Lynn Linton, Mrs. Matthew Arnold, and Mrs. Leslie Stephen; a supplementary list of two thousand names was added two months later.
(FROWN, miscellaneous. H14)
(92) On the one side stand those who hold that human embryos have the same moral status as mature adults from the time of their conception onwards and that any steps leading to their destruction must be analysed as a breach of fundamental human rights. From this standpoint, research must be outlawed unless it can be carried out without interfering with the embryo's development. Abortion can only be permissible where it is carried out to protect this same value of human life, that is to save the life of the mother. On the other stand those who believe that whatever status should be accorded to the human embryo, it is less than that of mature adults and may therefore sometimes be outweighed by the interests of adults who stand to benefit from research or termination.
(FLOB, science. J50)
(93) NEH is able to play as an equal partner with much larger enterprises for several reasons, but none as important as its reputation over the years for being a wellrun agency with a highly competent professional staff. On the administrative side of the agency, are knowledgeable, collegial professionals who serve as stewards of taxpayer funds. And on the program side of the agency are dedicated, intelligent officials who daily encourage and inform potential applicants, and who, most importantly, assure fair and impartial review.
(FROWN, miscellaneous. H26)

### 4.1.2.2 NOUN PHRASE, ADJECTIVE PHRASE, AND SUBORDINATOR INVERSIONS IN FICTION AND NON-FICTION: TEXT-STRUCTURING DEVICES

Noun phrase, adjective phrase, and subordinator inversion are more frequently attested in non-fiction than in fiction, because they do not express locative relationships and are not used as markers of spatial experiential iconicity. In other words, they are not used in discourse to mirror the process of physical perception; rather, as will be explained presently, these types of full inversion are used merely as textual cohesive devices.

Figure 19.
Noun Phrase inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)


As Figure 19 illustrates, noun phrase inversion is almost entirely restricted to the categories of Science (10) and Miscellaneous (9.68), although it occurs in Press reportage (2.84) to a lesser degree. Fiction, by contrast, hardly makes any use of this type of full inversion. Scientific and official texts have traditionally been characterised as expository and argumentative (cf. Biber, 1988: 139). Scientific argumentation is typically objective, and scientific texts normally present a straightforward packaging of information with hardly any rhetorical effect. In such a context, departing from the SVO word-order norm could be expected to be less frequent overall. In fact, previous studies have found a relatively low proportion of full inversions in scientific texts. For instance, Dorgeloh (1997: 162) claims that, in her analysis, scientific texts "result in rather medium values for inversion usage". Similarly, Biber et al. (1999: 926) do not find full inversion to be common in academic prose. The current data, however, show that there is a strong affinity of noun phrase inversion with scientific and official texts. The motivations for such an affinity will be discussed below.

In his analysis of Abstract versus Non-abstract Information (cf. 3.3.1), Biber (1988) shows that texts in the Science and Miscellaneous categories exhibit a high degree of abstractness and technical focus, while Press reportage and the fictional categories are less abstract in nature and do not normally focus on a conceptual or a technical subject matter. Since noun phrase inversion has been more commonly found in Science and Miscellaneous than in Press reportage and fiction, the data retrieved from the corpora confirm that there is a tendency for those categories with a higher degree of abstractness and technical focus to favour the use of this construction. Further evidence for this tendency can be found in the distribution of noun phrase inversion within Science which, as already noted (cf. 3.3.1), is subdivided into seven well-defined subcategories: natural sciences, medical sciences, mathematics, social behavioural science, political science/law/education, humanities and technology and engineering. These divisions are grouped by Biber (1989) into "scientific exposition", which comprises technology and engineering, natural sciences, medical sciences, mathematics, and "learned exposition", which comprises humanities, social sciences, and political sciences/law/education. As shown in Figure 20 below, a striking difference between "scientific exposition" and "learned exposition" relates to their degree of abstractness and technical focus. Both are expository and extremely informational, but "scientific exposition" focuses on highly abstract and technical information, and in doing so makes frequent use of syntactic constructions which give prominence to the patient argument of the verb (passives, conjuncts, nominalizations, etc), the entity acted upon, which is typically a non-animate abstract referent rather than a concrete one. "Learned exposition", by contrast, does so less consistently and is only moderately abstract in nature. The comparison of Biber's mean scores of scientific texts on dimension 5 (cf. Figure 20) with the distribution of noun phrase inversion in Science, illustrated in Figure 21, shows that there is a tendency
for those subcategories with a higher degree of abstractness and technical focus, namely medical sciences, mathematics, natural sciences, and technology and engineering, to favour the use of noun phrase inversion.

Figure 20.
Mean scores of dimension 5 - Abstract vs. Non-Abstract information in the subcategories of Science (based on Biber 1988: 181-184)


Figure 21.
Noun phrase inversion in the subcategories of Science (frequencies normalised per 100,000 words)


The preponderance of noun phrase inversion in Science is therefore best explained by the abstract and non-physical association of their texts, which are normally stripped of tense specifications and deictic elements. The same is true for Miscellaneous: official texts are markedly constrained in linguistic form since most of these texts involve the discussion of abstract topics. As Biber (1988: 153) notes, nouns conveying an abstract or non-physical meaning are essential in scientific and official discussions, where frequent reference is made to abstract or non-physical concepts and where actions and processes are often referred to in general terms rather than in relation to a specific time or place. Noun phrase inversion is well suited to the non-locative association of these categories, given that its clause-initial constituent commonly contains a non-referential indefinite article and a head noun with inanimate reference, as shown in (94)-(99) below.
(94) A major change is the shortening of court deadlines when deciding the future of children.
(FLOB, reportage. A29)
(95) An even more extreme example was Yukio Ninagawa's unforgettable Japanese Macbeth, seen in Edinburgh and London, which shifted the action to a world of 16th century Samurai warriors
(FLOB, reportage. A18)
(95) A common factor has often been the criminal use of motor vehicles.
(FLOB, miscellaneous. H09)
(96) A scheme was the subject of substantial local controversy.
(FLOB, miscellaneous. H22)
(97) A principal advantage of the Nubian that remains to elemental analysis is the rich biocultural context within which the elemental data can be interpreted.
(FROWN, science. J13)
(98) A recurring theme in discussing substance abuse treatment is the importance of well-trained and committed professionals to lead substance abuse programs and to provide direct care.
(FROWN, miscellaneous. H10)
(99) A problem common to all clustering techniques is the difficulty in deciding on the most appropriate number of clusters to select.
(FLOB, science. J39)

Noun phrase inversions are used in the three non-fictional categories as textstructuring devices. They express relations such as those of set member or possession, and serve merely to introduce new information and link it to the prior discourse, as illustrated in (100) below. In this example, "an example of this type of task" represents given information because, although the head of the noun phrase "an example" cannot be retrieved from the previous co-text, it is established in relation to a previously mentioned item, "this type of task", and therefore anchored to the preceding discourse. By contrast, the subject is presented in clause-final position and introduces new information. As illustrated in (101)-(102), clauses of this kind are frequently used to link information between paragraphs and give structure and cohesion to the discourse. ${ }^{32}$ The fact that noun phrase inversion and its text-structuring function is restricted to the non-fictional texts shows that, in scientific and official discourse, it is a crucial construction for making clauses fit in with the non-locative and abstract context, building up a coherent text that eases the reading process for the receiver.
(100) More recent studies have examined the effects of moderate intensity noise on cognitive vigilance tasks. An example of this type of task is the Bakan task where single digits are presented on the screen and subjects have to detect a particular sequence such as three successive odd digits. Poulton (1977) suggested that all the detrimental effects of noise could be explained either by the masking of acoustic cues.
(FLOB, science. J24)
(101) <p_>BMW has been designed to capture critical features of the Indian economy. Our assessment is that it does so rather well, enabling us to draw a large set of conclusions concerning the country's urbanization and growth process. But to what extent can these conclusions be generalized to other countries? The answer hinges on the similarity between India's demo-economic structure that of other developing countries. Naturally, authors like their findings to be as general as

[^28]> possible. Alas, there are some major obstacles in the way. $<\mathrm{p} />$
> $<\mathrm{p} \_$A leading obstacle is the greater openness of most developing countries relative to India. In India's semiclosed economy, a sectoral demand boom can fizzle if the costs of traded goods or nontraded inputs are bid up rapidly. In an SOE, traded goods' supply curves are flatter, since traded goods can be imported at a fixed price. Thus, a booming sector is not held back so much by the presence of a stagnant, low-productivity sector in an SOE; indeed, the more unbalanced the productivity advance, the more unbalanced the output growth. $<$ p/>

(FROWN, science. J38)
(102) $<p_{-}>$While the discovery of a genetic disorder in an individual may put relatives at risk, it rarely gives conclusive evidence as to whether or not they will be affected. An exceptional situation is provided by identical twins, where a diagnosis (or predictive test) in one twin for a disorder such as HD would give certainty that the co-twin would also become affected at some time. We have not so far encountered this problem. $<\mathrm{p} />$
$<p_{-}>A$ more frequent difficulty, and one that is easy to overlook, is the inadvertent prediction that may result from samples being tested of relatives who themselves do not wish for prediction. Molecular genetic testing for most disorders currently remains dependent on family testing for polymorphisms, whether gene-specific or linked. Pedigree structures are frequently far from perfect in disorders such as HD, and testing of sibs may be the only way by which parental genotypes can be inferred to allow prediction. Figure 10.1 shows an example of this situation. $<\mathrm{p} />$
(FLOB, science. J13)

Adjective phrase inversion also occurs more frequently in fictional text styles than in non-fictional ones. As Figure 22 below reveals, with the exception of Science fiction, frequency of occurrence is consistently higher in non-fictional than fictional categories, with Science (9.06) and Miscellaneous (5.11) showing the highest frequencies.

Figure 22.
Adjective phrase inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)


In the adjective phrase inversions retrieved from the corpora, the clause-initial constituent normally involves an evaluative meaning. Scientific and official discourse is characterised as expository and argumentative (cf. Biber, 1988: 140). For instance, a notable feature of scientific texts is the frequency with which intellectual claims are made and adjective phrase inversions provide a frame for supporting and emphasising such claims, as illustrated in (103)-(110) below. In (103), for instance, the main topic this worrying point is related to another topic, namely the fact that most people will have terrible trouble just understanding what Condren is trying to argue, which is introduced for the first time in discourse and is of higher relevance, more worrying. The adjective phrase inversion is a grammatical device used to convey evaluation, that is, it expresses (and is anchored to) the addressor's discourse point of view. The evaluative meaning of the clause-initial constituent is further emphasised by the presence of different author's comments, e.g. I fear, of course, etc. Further, adjective phrase inversion expresses abstract textual links rather than locative relations, cf. (103)-(110). The more frequent use of adjective phrase inversion in the non-
fictional categories, namely Science and Miscellaneous, is therefore related to the more argumentative and more abstract character of their texts. Scientific and official discourse is not very much concerned with spatial and temporal descriptions but rather puts a premium on explicitness of cohesion, which may be enhanced by the use of adjective phrase inversion, as illustrated in (111)-(113) below. In (111), the clause initial subject predicative contains an element of comparison with respect to the preceding co-text which forms a cohesive link. The fronting of the adjective phrase serves to juxtapose items which through semantic repetition (troubling, troubling) cohesively tie the sentences together. The comparative even more troubling implies (more troubling) than this, where this points anaphorically to the preceding co-text. In addition, troubling is an abstract issue which has already been introduced and is therefore given information, which is placed in clause initial position, whereas the new information is introduced in clause final position. In (112) and (113), similar cohesive links are found with also and central respectively. The inversions are exploited in the management of given and new information, that is, their function is not that of managing physical space but merely contributing to text-structure.
(103) This worrying point has been made many times before, though there it is not harm in saying it again, so long as it does not blind us to the fact that the late seventeenth century did have its own concept of 'radical,' even if it was very different from that which came into existence after the French Revolution.
(...) More worrying, Ifear, is the fact that most people will have terrible trouble just understanding what Condren is trying to argue. There is a certain irony in the fact that a student of linguistics should find it so difficult to articulate his views in a clear and comprehensible manner, and on one occasion even be forced to give up words altogether and start writing in mathematical equations (p.108). This, of course, is too bad, since I fear many will be put off by the style and therefore miss the many stimulating and provocative ideas that Condren's book undoubtedly contains.
(FROWN, science. J58)
(104) Most important for nuclear reaction studies are Van de Graff accelerators in which ions are accelerated in an evacuated tube by an electrostatic field maintained between a high voltage terminal and an earth terminal.
(FLOB, science. J67)
(105) More impressive are the analogies provided by Durham Cathedral Library. (FLOB, science. J67)
(106) Most disconcerting to Sciacchitano and other bakers is the fact that the only real enforcement of the law regarding facility accessibility lies with the Department of Justice.
(FROWN, science. J40)
(107) More significant was the realisation that Singapore has, since the late 1970s, lost the 'competitive edge' in manufacturing.
(FROWN, science. J42)
(108) Also comparable to humans is the short immunity to reinfection that occurs, with animals becoming susceptible to reinfection as early as 2 months after the resolution of a primary infection.
(FROWN, science. J12)
(109) Especially pertinent to the timing of an interpretation was a consideration of dynamics of transference.
(FLOB, science. J31)
(110) Equally important is the fact that households may be composed of unrelated individuals or contain an extended family of two or more generations.
(FLOB, science. J29)
(111) Instead of focusing just on how her sympathy feels, she remains interested in understanding what provokes it, what responses it provokes in others, how it reflects childhood experience. Somewhere along the way, however, she finds that she takes great pleasure in contemplating (if rather coolly) the fact of her feeling sympathy when she does; there is something exactly right about it, she finds, that makes it worth appreciating apart from its mere psychological significance or effect on others: like a dancer's gesture or a poet's turn of phrase, it is, somehow, satisfying to behold. Or perhaps the response itself is nothing special; it becomes interesting only through beholding it as Bullough's aesthete beholds the fog at sea: she neither anxiously interrogates it for clues about her psychological health or her moral worth, nor is she so detached that she is indifferent to it altogether. Instead, she has learned how to contemplate, with appreciation and from the 'proper psychical distance,' the mere fact of it. This, too, counts as an aesthetic meta-response. No doubt, there is something vaguely troubling about routinely aestheticizing one's feelings. But even more troubling is the habit of aestheticizing feelings that play a central role in our moral lives.
(FROWN, science. J61)
(112) Sadly, the problem of violence against women goes well beyond the disturbing trends in domestic violence. In today's violent culture, it seems as though every woman has reason to fear. In fact, the Department of Justice's calculations that three out of four American women could expect to be victims of at least one violent crime in their lifetime is, as astounding as it is, unacceptable. Also unacceptable is the FBI statistic indicating that rapes have increased four times as fast as the general crime rate during the past decade, and Mrs. Boxer's bill suggests proposals in those areas as well.
(FROWN, Science. J29)
(113) Discussions of competition in the market are numerous. What I want to do is limit my argument to those issues unique to the question of competition in regard to social institutions, as this will allow me to emphasize the difficulties of satisfying these conditions in the institutional case. Central to my argument is the following distinction: Institutions are not goods.
(FROWN, science. J23)

As illustrated in (114), the above-mentioned evaluative use of adjective phrase inversion is also found in Press reportage, though to a far more limited extent. Press reports are highly information-based texts with an important presence of news analyses (cf. Biber, 1989: 31). Nevertheless, they also include text portions, which allow the subjective intrusion of an addressor's comment. In these, references to the implied reader are often common (cf. Biber, 1988: 191). By contrast, fiction hardly makes any use of adjective phrase inversion because, as noted in Biber et al (1999: 911), fronting of predicative adjectives is rare in this genre, where texts include less explanatory and argumentative structures, and favour a locative-oriented discourse in which other types of full inversions, namely prepositional, adverb, and verb phrase inversions (cf. 4.1.2.1) with temporal and spatial meaning are present.
(114) The personal disaster which deprived Nicholas of the natural climax, not just to his benefit season but to his seventh season as captain of Hampshire, is only one of several reasons for Surrey's clear favouritism. Not only are Hampshire without their desperately unlucky captain, who loves this event enough to attend it every year as a spectator, but also their most prolific batsman, Chris Smith. Most unfortunately, not least in view of his record benefit for the county last season, he was unable to postpone his new job as marketing manager for the

West Australian Cricket Association. More significant, however, than these negative factors are the positive ones in favour of Surrey. Obviously, they have just beaten Hampshire in the championship by 171 runs. Waqar Younis took 12 for 92 in the match.
(FLOB, reportage. A08)

Figure 23.
Subordinator inversion in the fictional and non-fictional categories (frequencies normalised per 100,000 words)


As Figure 23 above makes clear, non-obligatory subordinator inversion is less commonly found in fiction than in non-fiction. The non-obligatory subordinator full inversion instances retrieved from the corpora involve clauses introduced by as, as shown in (115) below, and correlative constructions, as in (116)-(120). Scientific discourse makes a more extensive use of this construction because, due to its predominant function of explaining and convincing by means of scientific reasoning, it makes consistent use of a high density of complex grammatical cohesive devices, among which correlative constructions can be embedded, to express argumentations and create a cohesive discourse. The correlative constructions provided below serve a text-structuring function in the arrangement and development of the author's argument or explanation in scientific discourse. This fact is also
noted in Biber et al. (1999: 528) who argue that constructions such as those illustrated in (115)-(120) "are considerably more common in academic prose than in other registers". The higher frequency of subordinator inversion triggered by correlative constructions in Science reflects the importance of comparison in academic prose as a means of understanding and explicating reality; it is, quite simply, difficult to explain the nature of something without describing how it resembles or contrasts with another comparable thing. Scientific texts therefore make use of non-obligatory subordinator inversion in the comparison of ideas, concepts, results, and arguments. However, no spatial experiential iconic purpose is intended with the use of this inversion, since it does not reflect a process of physical perception, that is, it does not occur in physical or temporal descriptions and, for this reason, occurs more frequently in non-fiction than in fiction.
(115) The nominal suffix is invariant, as is the verbal suffix in Barbare.
(FROWN, science. J35)
(116) Such were the practical results of the commissioner's efforts to impose a scheme that no one in the locality had wanted.
(FLOB, science. J37)
(117) Nowhere was the bankruptcy of the PDRY'S system more apparent than in the petroleum sector.
(FROWN, science. J37)
(118) Not only was he one of the most passionate and bellicose rebels of his age, but he was also far from being the perfect Englishman.
(FROWN, science. J58)
(119) As important as the quality of information disseminated is its timeliness.
(FROWN, science. J40)
(120) The lectionary is closer to the mainstream of Anglo-Saxon art than is the Troper.
(FLOB, science. J67)

### 4.1.3 SUMMARY AND CONCLUSIONS

This section has analysed the distribution of obligatory and non-obligatory full inversion in English fictional and non-fictional discourse. The analysis has shown that fiction and nonfiction differ greatly in their use of the different obligatory full inversion types discussed in section 4.1. Obligatory adverb phrase inversion is more frequent in fiction whereas obligatory subordinator inversion is more frequent in non-fiction. In the case of the former, this occurs mainly because obligatory adverb phrase inversion triggered by deictics such as here, there, now, and then - which is by far the most common obligatory adverb phrase inversion type attested in the written corpus - is overwhelmingly more frequent in fiction than in non-fiction. Obligatory adverb phrase inversion triggered by here, there, now and then is most commonly found in speech (cf. 4.2), but fictional texts are also, to a certain extent, conversationally oriented in that they contain direct speech clauses and situations in which the narrator directly addresses the reader in the text, both of which are natural contexts for the occurrence of these inversions. The non-fictional texts, especially those in Science, are less prone to such an interaction and, therefore, fewer obligatory adverb phrase inversions of this kind are found. Rather, non-fiction makes use of obligatory adverb phrase inversions triggered by linking adverbials such as first, second, third, fourth, fifth, lastly, finally and anaphoric or additive so, neither and nor. The functionality of these inversions is markedly different: to serve a cohesive textual function in non-fictional discourse, which differs from the presentative function served by the obligatory adverb phrase inversions triggered by spatial and temporal deictics found in fiction. Their job is to perform a linking function and, especially in scientific discourse, they help the addressee to understand better the sequence of facts and guide him temporally in each step of the discussion. Finally, obligatory subordinator inversion triggered by subordinating as followed by copular be and the fixed
noun phrase the case is almost entirely restricted to scientific discourse, where it is conventionally required in the comparison of ideas or arguments. Fictional texts, which are not argumentative in nature, hardly make use of this type of obligatory full inversion.

As far as non-obligatory full inversion is concerned, the present analysis has shown that fiction and non-fiction do not differ in the overall distribution of the construction but rather in the different types of non-obligatory full inversion used, and in the different functions that these inversions serve in both genres. Fictional texts make a more extensive use of adverb phrase, prepositional phrase and verb phrase inversion than non-fictional ones. By contrast, non-fictional texts make a more extensive use of noun phrase, adjective phrase, and subordinator inversion than fictional ones. Thus tied to each form, there is a preferred functional job.

Full inversion with a preposed locative constituent is the most common type of full inversion in written English (cf. Chen 2003) and most adverb phrase, prepositional phrase and verb phrase inversions attested in the corpora include a clause-initial constituent which conveys a spatial or temporal meaning.. Since, as is well-attested in the literature (cf. Biber 1988; 1989; Herman 2001, among others), fictional discourse is more locative-oriented than non-fictional discourse, it is not surprising that adverb phrase, prepositional phrase and verb phrase inversions, which serve a spatial and temporal function, occur more frequently in fiction than in non-fiction. In fact, these inversions are commonly used in fictional contexts where a physical arrangement is described, and can be considered markers of spatial experiential iconicity (cf. Enkvist 1981). This iconicity, which is a variant of diagrammatic iconicity in the sense of Peirce (cf. Haiman 1980), is found in literary descriptions imitating in their structure the process of real-life visual experience. The process of perception in real life functions in such a way that viewers perceive salient entities first, and only subsequently do
they focus on particular entities or specific parts of the salient entities. Nevertheless, this is done in a spatial context which is not only essential in the interpretation of the figure but is also normally experienced or shared in the knowledge by both addressor and addressee. In fictional setting descriptions, however, this shared knowledge about the context does not necessarily take place, and the importance of the context is conspicuously mirrored in the syntax by the writer through the iconic fronting of locative adverb and prepositional phrases and the postponement of the subject. The use of adverb phrase, prepositional phrase and verb phrase inversions as devices which create spatial experiential iconicity thus provides a means of shaping a descriptive discourse that follows the sequence of perceptual experience, and is a common way of organising narrative discourse. The order of the constituents iconically resembles the importance of the spatial context in the interpretation of what is being described. The description is therefore structured in a way which favours its understanding by the addressee, because the context encourages such an interpretation. Focussing on the context first is essential for contextualising the salient entity.

In contrast to fictional discourse, non-fictional discourse, with its less locative orientation, makes less frequent use of adverb phrase, prepositional phrase and verb phrase inversion as markers of spatial experiential iconicity. In this genre, the constructions are still iconic in that the temporal order of the constituents reflects the temporal order of the introduction of information in discourse; the old information is placed in clause-initial position whereas the new information is placed in clause-final position. In this sense, the inversions are still text-structuring devices which code abstract relations, but there is no imitation of the spatial perspective-taking found in fiction, mainly because the clause-initial constituents of these inversions convey an abstract rather than a locative meaning. Clearly, this is due to the fact that in the non-fictional texts analysed here there is less scope for
narration and spatial descriptions, less reference to past time and places, and less need to introduce new scenes due to the world being different from the shared common ground. A notable exception to this has been in the category of Press Reportage, which is concerned with news analyses but which also involves the description of settings and physical entities (cf. Biber 1988) and which, for this reason, also exhibits a limited number of adverb phrase, prepositional phrase, and verb phrase inversions, serving a spatial experiential iconic function. Overall, however, non-fiction makes more frequent use of full inversions which do not express a locative meaning, namely noun phrase, adjective phrase, and subordinator inversions. These inversions are not used as markers of spatial experiential iconicity but rather code abstracts relations and serve a cohesive text-structuring function. The higher frequency of noun phrase, adjective phrase, and subordinator inversion in non-fiction is related to the degree of abstractness of texts, which typically contain fewer tense specifications and deictic elements. The different types of non-obligatory full inversions are therefore related to the type of discourse in which they occur. Fictional discourse favours inversions which serve a spatial experiential iconic function, whereas non-fictional discourse favours inversions which convey an abstract meaning. The discourse determines the type of full inversion used, and each type must conform and serve the discourse in which it occurs.

### 4.2 FULL INVERSION IN PRESENT-DAY SPOKEN ENGLISH: OBLIGATORY AND NON-OBLIGATORY USES

With the exception of Green (1980, 1982), scholars have devoted little attention to the examination of full inversion in the spoken language, apart from a small number of isolated comments. Green (1982: 123), for instance, simply asserts, but does not prove, that speech "is not a primary source of inversions for syntactic studies". A similar view is held in Dorgeloh (1997), Chen (2003), and Kreyer (2004), who contend that full inversion is for the most part a written phenomenon, and also in Biber et al. (1999: 926) who contend that "conversation is spontaneously produced and leaves less room for planning and varying the use of language resources".

Yet though intuitively full inversion seems to be much less frequent in speech than in writing, as illustrated in Figure 24 below, the present analysis proves that there is also an affinity of full inversion with the spoken language, and that speech (211 instances / normalised frequency per 100,000 words: 29.3) and writing (438 instances / normalised frequency per 100,000 words: 40.4) differ only slightly in the number of full inversions used. Rather, as the comparison of the data illustrated in Figure 25 and Figure 26 reveals, what distinguishes written from spoken English most clearly is the use of different types of full inversions. The written texts make a more consistent use of non-obligatory full inversion (345 instances / normalised frequency: 31.82), cf. Figure 25, than of obligatory full inversion (93 instances / normalised frequency: 8.57). Conversely, the spoken texts make a more extensive use of obligatory full inversion (93 instances / normalised frequency: 16.66) than of nonobligatory full inversion (91 instances / normalised frequency: 12.63), cf. Figure 26.

What follows provides a detailed account of the obligatory and non-obligatory full inversion instances retrieved from the spoken corpora (cf. Table 25), together with a discussion of the reasons behind the above-mentioned differences in distribution.

Figure 24.
Full inversion in the written and spoken modes (frequencies normalised per 100,000 words)

$\square$ Written mode $\square$ Spoken mode

Figure 25.
Obligatory and non-obligatory full inversion in the written mode (frequencies normalised per 100,000 words)


Non-obligatory full inversion
$\square$ Obligatory full inversion

Figure 26.
Obligatory and non-obligatory full inversion in the spoken mode (frequencies normalised per 100,000 words)


| $\square$ |
| :--- |
| $\square$ Non-obligatory full inversion |
| $\square$ Obligatory full inversion |

Table 25. Distribution of obligatory and non-obligatory full inversion in the spoken corpora

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### 4.2.1 OBLIGATORY FULL INVERSION IN SPOKEN ENGLISH

The analysis of the spoken corpora has yielded 120 obligatory full inversions which, as illustrated in Figure 27 below, are almost exclusively restricted to inversions triggered by here, there, now, and then. Table 26 also confirms that full inversion triggered by deictic adverbs, in presentative function, is indeed the prototypical type of obligatory full inversion in spoken English.

Figure 27.
Obligatory full inversion triggers in the spoken corpora


As Chafe (1994) notes, one of the basic properties which sets apart speaking and writing is the notion of situatedness. This notion has to do with "the closeness language has to the immediate physical and social situation in which it is produced and received" (ibid: 44). From this it follows that two important situational properties distinguish writing from speaking: 1) the question of whether the producer and receivers of the message are co-present, and 2) the question of whether they interact.
Table 26．Distribution of the obligatory full inversion triggers in the textual categories of the spoken corpora

|  |  | GLLILSWOO | ＇ |  | Waun | ते | ＇ | ＇ | ＇ | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | MVY | $\cdots$ | ＇ | ＇ | ＇ | ค |
|  |  |  | 8 |  | WYON | $\stackrel{\infty}{\circ}$ | $\stackrel{\sim}{i}$ | $\bigcirc$ | $\bigcirc$ | $\stackrel{18}{8}$ |
|  |  | ג．LTOכVA | O－ |  | MVY | च | － | － | － | $\wedge$ |
|  |  | SNOILVLNASSEYd <br> TVY日T | 으앙 |  | ＇WYON | ＇ | ＇ | ＇ | ＇ |  |
|  |  |  |  |  | MVE | ， | ， | ＇ | ， |  |
|  | 叚 | SNOIL－vyISNOWGa | 9 | ， | WYON | ¢ | ＇ | ＇ | ＇ | के |
|  |  |  |  |  | MVY | $\bigcirc$ | ＇ | ＇ | ＇ | $\bigcirc$ |
|  |  | HOGGdS agldityosnn |  | － | WYON | ন | ＇ | ， | ＇ | च |
|  |  |  |  |  | MVy | $\cdots$ | ＇ | ＇ | ＇ | $\sim$ |
|  |  | SYTVL LSEJGVOYGNON | $\bigcirc$ | ลे | WYON | ＇ | ＇ | n | ＇ | 10 |
|  |  |  |  |  | MVE | ＇ | ＇ | － | ＇ | － |
|  |  | SYTVL LSEJGVOy |  | $\sim$ | WYON | $\bigcirc$ | $\sim$ | ＇ | ， | $\cong$ |
|  |  |  |  | － | MVY | $\checkmark$ | － | ＇ | ＇ | is |
|  |  | SMAN LSEOCHO甘G | $\stackrel{\sim}{\sim}$ |  | WYON | m | ＇ | ＇ | ＇ | 2 |
|  |  |  |  |  | MVE | $\pm$ | ＇ | ＇ | ＇ | $\pm$ |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 3 \\ & 3 \end{aligned}$ |  | SNOILOVSNVYLSSANISNG | $\bigcirc$ | ［10 | WYON | ＇ | ＇ | ＇ | ＇ |  |
|  |  |  |  | $\simeq$ | MVY | ＇ | ＇ | ＇ | ＇ |  |
|  |  | SNOLLUNINVXG SSOED TVOGT |  |  | WYON | ＇ | ＇ | ＇ | ＇ |  |
|  |  |  |  |  | Mvy | ＇ | ＇ | ＇ | ＇ |  |
|  |  | Salvgad xy －ULNANVITEVA | $\bigcirc$ |  | WYON | ＇ | ＇ | n | ＇ | ？ |
|  |  |  |  |  | MVY | ＇ | ＇ | － | ＇ | － |
|  |  | SMAIMYGINI LSEJGVO\＆G | $\bigcirc$ |  | WYON | 1 | ＇ | ＇ | ＇ |  |
|  |  |  |  |  | Mvy | ＇ | ＇ | ＇ | ＇ |  |
|  |  | SNOISSnOsid LSEJGVOYG |  |  | WYON | ＇ | ＇ | $\sim$ | ＇ | N |
|  |  |  |  |  | Mvy | ＇ | ， | － | ＇ | － |
|  |  | LNGNVOUNVW nooysseto | Ni |  | WYON | $\bigcirc$ | ＇ | ＇ | ＇ | 앙 |
|  |  |  |  |  | MVY | ＋ | ＇ | ＇ | ＇ | － |
|  | トエ×たの |  |  |  |  |  |  |  |  | 近 |

Conversational language typically involves participants who share the same location in space and time, and who alternate in their roles. Writing is different in both respects. Typically writer and reader occupy different locations, and they rarely interact. With this difference in mind, Green (1982: 130) argues that obligatory full inversion triggered by here, there, now, and then is a typical "oral language construction", because its use seems to be subject to the restriction that there must be a perceptual field shared by both speaker and hearer and an interaction between both of them. In the analysis of the written corpora (cf. 3.4.1), however, it was demonstrated that the use of obligatory full inversion triggered by here, there, now, and then may also be attested in written discourse. This occurs because the deictic reference conveyed through these inversions can also be made to the text itself. In other words, a text creates its own deictic dimensions and offers an alternative perceptual field which is available to the writer and the reader, and where direct speech contexts with a conversational status may also be present. Nevertheless, as shown in Figure 28 below, the comparison of obligatory full inversion triggered by here, there, now, and then in the written and spoken language shows that, for reasons which will be explained shortly, the construction is more frequently attested in speech than in writing.

Fgure 28.
Obligatory full inversion triggered by here, there, now and then in the written and spoken corpora (frequencies normalised per 100,000 words)

$\square$ Written mode $\square$ Spoken mode

As Table 26 reveals, obligatory full inversion triggered by here, there, now and then has been more frequently attested in the Monologues (6 instances / normalised frequency: 3.75) than in the Dialogues of ICE-GB (39 instances / normalised frequency: 19.5), where it is almost exclusively restricted to the Classroom Management category. These results contradict Green's (1982) claim and suggest that the interaction of the participants in the speech event is not an essential condition for the more frequent use of obligatory full inversion triggered by here, there, now, and then in speech. Rather, on the basis of the present data, the more frequent use of this type of obligatory full inversion in speech than in writing seems to be related to the sharing of a spatial perceptual field by both speaker and hearer. In most of the spoken texts analysed in ICE-GB, both the hearer and the audience, though not interacting with the speaker, are co-present or share a perceptual field when experiencing the speech event. This is especially the case in the categories of Demonstrations, Unscripted speech monologues and Broadcast news, which show the highest incidence of obligatory full inversion triggered by deictic adverbs (cf. Table 26).

Demonstrations are highly information-based texts, since the speaker's aim is to demonstrate and describe an instrument, a procedure, or an object which is visible to the audience and to the addressee. This is also the case of Unscripted speech, which includes university and art lectures. Obligatory full inversion triggered by here, there, now, and then is conventionally used in both categories for presentative purposes, as illustrated in (1)-(4) below. Broadcast news also includes information-based speeches where speaker and hearer neither interact nor share a common location, but where a perceptual field common to both of them always exists. It is this perceptual field which allows the use of obligatory full inversion triggered by here, there, now, and then, cf. (5)-(6), especially in contexts in which a
correspondent, who carries on the speech, is introduced for the first time in discourse, as shown in (7)-(9).
(1) Well I won't say much about Brownian movement. But here is a thing from Scientific American which clearly shows the path of the particle [] going in this sort of random walk in this way.
(ICE-GB, demonstrations. S2A-051)
(2) Present within natural water you often get things a bit like vacuum cleaners you can see the stalk running up here. Here's the cell body and on the front edge here you have a mass of these very small hair-like organelles called cilia.
(ICE-GB, demonstrations. S2A-051)
(3) Here we're looking at the site of Heliopolis in Hekekyan 's day in eighteen fiftyone, where as you can see it was still surrounded by the fields, here 's the extent of the site itself with the obelisk in the middle.
(ICE-GB, unscripted speech. S2A-042)
(4) So there's a beautiful bit of Ionic from another temple on the Acropolis, the one called the Erechtheum. And here is just a little sample of the way that Ionic may well have developed.
(ICE-GB, unscripted speech. S2A-024)
(5) The news that the Foreign Office was advising British dependants in Jordan and Yemen to leave well before January the fifteenth was broadcast on the B B C World Service earlier today. Here's a message from the Foreign and commonwealth Office in London. It has the following advice for British communities in Jordan and Yemen (...)
(ICE-GB, broadcast news. S2B-012)
(6) Here's a quick look at London's weather for today. Generally good news. Fine dry and sunny we 're told for the day. And the maximum temperature twenty-five degrees centigrade seventy-seven Fahrenheit. Back with more news here on L B C at ten-thirty. Capital Reports at nine.
(ICE-GB, broadcast news. S2B-016)
(7) However the defeat of Republican candidates for governor in two key Southern states where Mr Bush had campaigned personally may have laid the groundwork for further Democratic gains in the future. Here's our Washington correspondent David MacNeill.
"The Democrats have gained a handful of additional seats in the House of Representatives where they already hold a big majority (...)".
(ICE-GB, broadcast news. S2B-006)
(8) Europe was the subject of a major speech by the Foreign Secretary Mr Douglas Hurd this morning. He told the C B I conference in Glasgow that Britain could protect its own interests within the European Community without having to protest about threats to national sovereignty. Here's our chief political correspondent John Harrison.
"Douglas Hurd a quiet man by nature a diplomat by training couldn't resist pointing out on Guy Fawkes Day that he'd had enough of the explosions of the past few days (...)".
(ICE-GB, broadcast news. S2B-007)
(9) This morning an Arab woman carried out a suicide attack on an army patrol in Israel's security zone in south Lebanon and four Israelis died when a gunman shot at a tourist bus on the border between Israel and Egypt. Egypt's Minister of State for Foreign Affairs has expressed regret for the incident. Here's our Jerusalem correspondent Alex Brodie.
"Four Israelis were killed and twenty-four wounded close to the Egyptian border in southern Israel when a lone gunman opened fire on a bus. These details were given by the Israeli embassy in Cairo".
(ICE-GB, broadcast news. S2B-009)

In the spoken categories where obligatory full inversion triggered by here, there, now, and then is more frequently attested, the speaker and hearer, though not interacting or being copresent, share a considerable amount of knowledge concerning the environment of the conversation and each other's identity. Writing consciousness is quite different in this respect because, in this mode, there is a complete absence of co-presence and interaction, except in direct speech situations where conversational features are present. Rather, in writing, the location of the writer and its identity is typically irrelevant to what is written, and the identity of the readers is typically unknown to the writer, though he or she may be aware of the type of people for whom the writing is intended. A written text creates its own deictic dimensions, but no perceptual field is normally shared by writer and reader, and therefore fewer obligatory full inversions triggered by here, there, now and then are found in this mode.

Obligatory full inversions triggered by enumerative listing conjuncts, clause-initial so, neither, and nor, and obligatory full inversions with the fixed construction as + be + the case,
have been more frequently found in the written corpora than in the spoken corpora, as illustrated in Figure 29 below.

Figure 29.
Obligatory full inversion with enumerative listing conjuncts; with so, neither and nor; and with the fixed construction as + be + the case in the written and spoken corpora
(frequencies normalised per 100,000 words)


Written mode $\square$ Spoken mode

As mentioned in 3.4.1, obligatory full inversions triggered by enumerative listing conjuncts such as first, second, third, etc (cf. Quirk et al., 1985: 635) are, in addition to their presentative purpose, used for cohesive purposes. In other words, these inversions are important devices for creating textual cohesion and guide the addressee through the most important parts of the message in an order carefully chosen by the addressor, as illustrated in (10)-(13). The same is true for obligatory full inversions triggered by so, neither and nor and for inversions with the fixed constructions $a s+b e+$ the case, as illustrated in (14)-(18), where the inversions express a parallelism and perform a textual function in discourse, since the clause-initial element stands for given information and has a cohesive effect.
(10) We met with the Governor, in cooperation with NC State. We had representatives from both NC State and Carolina to meet with the Governor to push two primary goals that we've been working on for a couple of years. First is competitive faculty salaries. We continue to work on that, to get us back to where we were in the early 80 's.
(CSPAE, faculty meetings)
(11) The three benefits to the faculty are those three legs of a stool that we keep talking about: First, the service. We can't do all this service. We're not a service agency, and many times we have this debate. We can't do what needs to be done in this state. We can in training students. They can be the foot soldiers in how the academic goes out to the community. Second is research and a lot of faculty members don't do this. You certainly don't realize it going in. The contacts that you and your students make as you do placements, the data, the problems that you can identify, the opportunities to engage in research that's important and meaningful for the state is there when you do service learning. And finally teaching.
(CSPAE, faculty meetings)
(12) And I wrote them a fairly lengthy letter explaining that we had three priorities. First was faculty and staff salaries. Next was graduate student health insurance if they didn't get funded in the general budget. After that the other two priorities were technology on campus, improving our use of technology and our capacity to use technology by providing more infrastructure for the campus, and then the other priority was outreach to the public schools, recognizing that probably nothing is more important right now in this state than securing our future by improving the quality of our public schools.
(CSPAE, faculty meetings)
(13) A third was the residential component and then fourth was an evaluation perspective of the whole first year experience.
(CSPAE, faculty meetings)
(14) Transoceanic commerce is one of these inter-relationships. The common heritage of science is another, so is the aspiration to add to it.
(ICE-GB, non-broadcast talks. S2B-048)
(15) And when alcohol became a threat he decided that it, too, would have no claim on him. Neither struggle was easy. Nor was the battle against depression, which led Bob to take his retirement in December 1994.
(CSPAE, faculty meetings)
(16) Nor need I look further than my own city of Sheffield where the percentage of termination of pregnancy continues to be considerably higher than the average for England and Wales and the section on handicapped children Section Four is invoked for less than one per cent of all those numbers. Nor is there anything illogical in combining legislation on abortion and embryonic research despite the objections heard in one of the opening speeches.
(17) I think what is not legitimate is either for us to seek by military force to overturn the government of Iraq though that may happen in the process nor is it legitimate for us to acquire and I underline the word acquire Iraqi territory.
(ICE-GB, broadcast discussions. S1B-027)
(18) But as was the case with Jefferson, Dawson answered the call to service and was a distinguished Dean of the College during one of its most important and turbulent periods.
(CSPAE, faculty meetings)

An explanation for the more frequent use of these types of obligatory full inversions in writing than in speech is that the written mode generally needs more cohesive constructions than the spoken mode because, as noted by Chafe (1992), it takes place most commonly under conditions of displacement, that is, it deals with events which are not part of the immediate environment of addressor or addressee. By contrast, the spoken language tends to have a more fragmented character and, due to matters of speed, exhibits a far less structured syntax than the written language. This fragmentation of speech is shown partly in the stringing together of clauses without connectives, as shown in example (19) below.
(19) It seemed spacious at the time (when) I came home. I was really exhausted.
[adapted from Chafe, 1992: 38]

In oral communication, information tends to be produced in a much less dense manner than in written communication, since ideas tend to be activated spontaneously as the speech event proceeds and there is little time for elaborate preplanning. Of course people sometimes plan what they want to say in conversations, but even in such cases the syntax of the speech discourse is not likely to be as elaborated as in writing (cf. Chafe 1992). Thus the speaker typically repeats himself a good deal, uses similar syntactic structures, similar lexical items, the first word that comes to mind rather than hunting for the most accurate one, etc. This is not the case in writing where, as we write down one idea, our thoughts have plenty of time to
move ahead to others. The result is that we have time to integrate a succession of ideas into a more complex, coherent, and integrated whole, making use of cohesive devices such as obligatory full inversions with enumerative listing conjuncts, with so, neither and nor or with the fixed constructions as + be + the case, which we seldom use in speech. Rather, in speech the relationship between ideas is encoded by means other than these obligatory full inversions. Spoken language, for instance, allows maximum exploitation of prosody - pitch, prominence, pauses, and changes in tempo and voice quality - which are important devices for creating textual cohesion. Orientation or anchoring tasks, topic changes, prominence of individual constituents, expressions of emotions, can thus be performed using intonational patterns, and it is only writing that has to rely solely on linear ordering and syntactic constructions. Fewer textual linking obligatory full inversions are therefore found in speech, but presentative obligatory full inversions are used instead.

### 4.2.2 NON-OBLIGATORY FULL INVERSION IN SPOKEN ENGLISH

The analysis of ICE-GB and CSPAE has provided 91 non-obligatory full inversion instances, which are distributed among the different full inversion types, as illustrated in Figure30 below

Figure 30.
Non-obligatory full inversion types in the spoken corpora


The remaining five types are less frequently attested: subordinator inversion (5 instances), adverb phrase (4 instances), noun phrase (18 instances), adjective phrase (9 instances), and verb phrase (12 instances). These full inversion types are distributed differently in textual categories of the spoken corpora, as shown in Table 27. What follows gives an account of the distribution of the different non-obligatory full inversion types in the textual categories of ICE-GB and CSPAE (cf. Table 27), and clarifies why they have been more frequently found in the written than in the spoken corpora.
Table 27. Distribution of non-obligatory full inversion in the textual categories of the spoken corpora


### 4.2.2.1 PREPOSITIONAL PHRASE, ADVERB PHRASE AND VERB PHRASE INVERSIONS IN SPOKEN ENGLISH: SPATIAL EXPERIENTIAL ICONIC MARKERS AND TEXT-STRUCTURING DEVICES

As Figure 31 makes clear, prepositional, adverb, and verb phrase inversions are more frequently found in the written than in the spoken corpora, for reasons which will be explained presently.

Figure 31.
Prepositional, adverb, and verb phrase full inversion in the written and spoken corpora (frequencies normalised per 100,000 words)


Written mode $\square$ Spoken mode

As was the case in writing (cf. 4.1.2.1), most prepositional, adverb, and verb phrase inversions found in the spoken corpora contain a clause-initial locative constituent, as illustrated in (20)-(26).
(20) Round the corner were The Lilacs The Laurels The Firs The Laburnums and Beech View.
(ICE-GB, broadcast talks. S2B-026)
(21) In our studio now at the C B I conference in Glasgow is our economics editor Dominic Harrod.
(ICE-GB, broadcast news. S2B-007)
(22) Above him is the Byzantine emperor whose face has been somewhat rubbed but one sees a little bit of the under drawing with a big black moustache and a baggy turban.
(ICE-GB, demonstrations. S2A-059)
(23) In the radio car is Sir Geoffrey Johnson-Smith the M P for Wealdon and Vice Chairman of the Nineteen Twenty-Two Committee.
(ICE-GB, broadcast news. S2B-006)
(24) Further up river is desolation.
(ICE-GB, broadcast talks. S2B-022)
(25) Embedded in there are some of the things I was concerned about.
(CSPAE, faculty meetings)
(26) Sitting well below the salt at the meeting was somebody from the late lamented Central Policy Review staff.
(ICE-GB, broadcast news. S2B-006)

Nevertheless, it is worth mentioning that inversions such as those illustrated above are mainly restricted to two categories in the Monologues of the corpora, namely Broadcast news and Broadcast talks (cf. Table 27). In ordinary physical perception, the viewer experiences the salient entities and then the context of the situation which is essential in the interpretation of the utterance. By contrast, Broadcast news and Broadcast talks comprise monologues in which the hearer and the audience neither interact with the speaker nor share the same context when experiencing the speech event. The speaker thus needs to match his linguistic representation with that of the presentation of the physical perception of reality, where the physical context is essential in the interpretation of what is being conveyed. This matching may be achieved by the use of prepositional, adverb, and verb phrase inversions, conveying a spatial meaning through the iconic fronting of a locative constituent and the postponement of the subject. In (26), for instance, the inversion contains a clause-initial locative prepositional phrase attached to the present participle. This location is the main property ascribed to the subject and its clause-initial placement allows for the mirroring of the importance of the
context in real-life perception. In other words, the inversion is the linguistic realization of a global spatial iconic strategy chosen by the speaker to guide the hearer throughout the speech event, providing him first with the physical schema needed to anchor the specificity of the events. By presenting the context first, the hearer understands the salient entity better. In (26), for instance, the clause-initial constituent provides the frame or spatial setting in which the action takes place and prepares the hearer for the introduction of the new information, namely somebody from the late lamented Central Policy Review staff.

In addition to the fact that addressor and addressee do not share the same context, a further explanation for the higher incidence of prepositional, adverb, and verb phrase inversions, which serve a spatial experiential iconic function, in Broadcast news and Broadcast talks, is that the texts included in these categories are fully scripted, that is, they were written to be read aloud, and hence exhibit some degree of premeditation and planning typical of written texts, where writer and reader do not tend to share the same location. Both categories are thus not fully representative of spoken English as such, since they leave more space for planning and varying the use of language as the speaker reads from a prepared script. By contrast, the majority of the English spoken texts analysed in this dissertation contain either dialogues or monologues which are not prepared to be read, and where the speaker and the hearer share the same location during the speech event. The importance of the context does not need to be mirrored by the use of inversion conveying a locative meaning, which, as tested by Chen (2003), is the prototypical inversion in English. This is the main reason why prepositional, adverb, and verb phrase are less frequently attested in the spoken than the written texts. They are prototypically used as markers of spatial experiential iconicity when addressor and addressee do not share the same context, but this is less needed in speech,
where the events are most often part of the immediate environment of both addressor and addressee.

Prepositional, adverb, and verb phrase inversions merely performing a cohesive function are also attested in the spoken corpora, as illustrated in (27)-(29) below, though this occurs to a more limited extent.
(27) Among some of the strategies that we've been considering recently are the developments of another kind of packet.
(CSPAE, faculty meetings)
(28) Against the present economic background are the increases in planned public expenditure he has announced entirely appropriate.
(ICE-GB, parliamentary debates. S1B-052)
(29) Underlying all of this is the type of question when you said it needs to be an extended question and commenting on that.
(CSPAE, committee meetings)

These inversions, which do not serve a spatial iconic function, are most frequently found in the Dialogues of ICE-GB and in the Faculty meetings and Committee meetings categories of CSPAE. The inversions serve to place the old information in clause-initial position and link it to the new information which is placed in clause-final position. There is, however, no presentation of the context because this can be captured from the physical reality available to both the addressor and the addressee. The comparison of speech and writing shows that inversions such as these, which merely serve a text-structuring function, are more frequently found in writing than in speech, because, as already mentioned (cf. 4.2.1), the spoken language does not need to rely merely on syntactic ordering to create cohesion, but rather makes prominent use of intonational devices for such purposes.

### 4.2.2.2 NOUN PHRASE, ADJECTIVE PHRASE, AND SUBORDINATOR INVERSIONS IN SPOKEN ENGLISH: TEXT-STRUCTURING DEVICES

Noun phrase, adjective phrase, and subordinator inversion, are less frequent in the spoken corpora than in the written corpora, as shown in Figure 32. They are not used as markers of spatial iconicity but merely serve a text-structuring function in spoken discourse, as illustrated in (30)-(38) below. In (30), for instance, the clause-initial constituent "a second component" represents given information that can be retrieved from the previous co-text. It does not encode any locative meaning and the inversion expresses a set-member relationship and serves to introduce the new information, namely "the summer reading", and to link it to the prior discourse. The inversion is still iconic in that the fronted element represents old information and the postposed subject represents the new information which is linked to the previous discourse, but there is no spatial iconicity and context dependence involved in the process.

Figure 32.
Noun phrase, adjective phrase, and subordinator full inversion in the written and spoken corpora (frequencies normalised per 100,000 words)


Written mode $\square$ Spoken mode
(30) As you will recall from the Intellectual Climate Task Force Report, where four main components of the first year initiative. One was the freshmen seminars that will be coming out of the College of Arts and Sciences. A second component was summer reading.
(CSPAE, faculty meetings)
(31) A better way to look at it is the Arabic numbers.
(CSPAE, committee meetings)
(32) A particularly striking feature of the report is the growth in coverage in manual operations.
(ICE-GB, parliamentary debates. S1B-058)
(33) Next was graduate student health insurance if they didn't get funded in the general budget.
(CSPAE, faculty meetings)
(34) Specific to the mathematics is the whole question of the use of calculators and manipulatives.
(CSPAE, committee meetings)
(35) Equally important are the profoundly moral arguments over the origin of life.
(ICE-GB, parliamentary debates. S1B-042)
(36) Not only were the queues for basic food just as long but when you finally reached the front of the line the prices were two three six times higher.
(ICE-GB, broadcast talks. S2B-022)
(37) Such was the pervasive sense of hunger that Berger Ausland's diary became filled with crazy recipes as he fantasized about pork roasts spaghetti
(ICE-GB, broadcast talks. S2B-024)
(38) Hebrew is a Semitic language as are Aramaic Arabic and several Ethiopic languages.
(ICE-GB, Non-broadcast talks. S2B-042)

Noun phrase, adjective phrase, and subordinator inversion have been mainly found in the Dialogues of ICE-GB and in CSPAE, especially in the category of faculty meetings. The fact that they are more common in writing than in speech is not surprising, since these constructions perform a cohesive function, and, as already noted in 4.2.1, writing needs more cohesive constructions than speech because it takes place under conditions of displacement.

The spoken language is more fragmented in nature and the connection between ideas is left implicit through intonational devices. Speech does not depend exclusively on syntactic order, which reduces the need for the cohesive function of noun phrase, adjective phrase, and subordinator inversion in this mode.

### 4.2.3 SUMMARY AND CONCLUSIONS

This section has analysed the distribution of full inversion in Present-day English spoken texts. It has been demonstrated that written and spoken English do not differ greatly in the amount of full inversions used. Both modes, however, make use of different types of full inversion: writing makes a more extensive use of non-obligatory full inversion than of obligatory full inversion (cf. 4.1), whereas speech makes a more extensive use of obligatory full inversion than of non-obligatory full inversion

Most of the obligatory full inversions retrieved from the spoken corpora are triggered by here, there, now, and then. Inversion introduced by these presentative adverbs is the prototypical type of obligatory full inversion in spoken English, and is an instantiation of a particular routine in the spoken language which describes situations that take place or are taking place as they are uttered. This obligatory full inversion type was attested in the written corpora as well, because a text may offer an alternative perceptual field which is available to the writer and the reader, where direct speech contexts with a strong conversational status may also be present. Nevertheless, on the basis of this corpus-based study, obligatory full inversion triggered by here, there, now, and then is more frequently attested in speech than in writing. In most of the spoken texts analysed in the spoken corpora, both the hearer and the audience, though not interacting with the speaker, are co-present or share a perceptual field when experiencing the speech event. This is especially the case in the categories of Demonstrations, Unscripted speech monologues and Broadcast news, which are highly
information-based texts and show the highest frequency of obligatory full inversion triggered by here, there, now and then serving a presentative function. By contrast, in writing, there is a complete absence of co-presence and interaction between writer and reader, except in direct speech situations where conversational features are present. The location of the writer and the reader is normally irrelevant to what is written, no perceptual field is shared by them and, for this reason, obligatory full inversion triggered by here, there, now, and then occurs less frequently than in speech.

Obligatory full inversions triggered by enumerative listing conjuncts, clause-initial so, neither, and nor, and obligatory full inversions with the fixed construction as + be + the case, are very limited in number in the spoken corpora. These inversions, which perform a textual linking function, are more frequently found in writing than in speech, because the written language needs more syntactic cohesive devices than the spoken language, which may resort to intonational patterns to create cohesion. Speech, in fact, makes more frequent use of obligatory full inversions in presentative function than of obligatory full inversions serving a text-structuring function.

As expected, non-obligatory full inversions are less frequently attested in speech than in writing. In the spoken corpora, prepositional phrase inversion is the most frequent type whereas adverb phrase, noun phrase, adjective phrase, verb phrase and subordinator inversion are less frequently attested. Most prepositional phrase, adverb phrase, and verb phrase inversions found in speech contain a clause-initial locative constituent. However, this is mainly restricted to two categories, namely Broadcast news and Broadcast talks, which show the highest frequencies of non-obligatory full inversion. In these categories, the speaker and the hearer do not share the same context when the discourse takes place. Prepositional phrase, adverb phrase, and verb phrase inversions perform a spatial experiential iconic
function in these categories, which allows the speaker to create the adequate spatial framework to locate the hearer before providing him with all the information about the particular place which is described, making the text iconic with the way viewers experience the importance of a shared spatial context in visual perception. Nevertheless, it is worth mentioning that the categories Broadcast news and Broadcast talks are not completely representative of spoken English, since they include scripted texts which were written to be read aloud. Most spoken texts analysed in this study were not prepared to be read. They include contexts which are shared by speaker and hearer and, as opposed to fictional written texts, need a far less frequent use of prepositional phrase, adverb phrase, and verb phrase inversions conveying a spatial experiential iconic meaning.

Finally, noun phrase, adjective phrase, and subordinator inversion are not used as markers of spatial iconicity but merely serve as textual cohesive devices in the spoken corpora. They are less frequent in speech than in writing because the spoken language, which is more fragmented than writing, needs fewer syntactic constructions to create cohesion and makes use of intonational cohesive devices for this purpose.

### 4.3 PROSPECTS FOR FUTURE RESEARCH: FULL INVERSIONS AS CONSTRUCTIONS

Over the past few years, work in Construction Grammar (cf. Fillmore et al. 1988; Goldberg 1995, 2005; Kay and Fillmore 1999, among others) has stressed the important role of constructions in structuring grammar. A central thesis of Construction Grammar is that information is not only conveyed through individual lexical items but also through constructions, namely form-meaning correspondences or symbolic packages which in themselves carry meaning, independently of the words in the sentence. A construction is defined, within this framework, as "a set of formal conditions on morphosyntax, semantic
interpretation, pragmatic function, and phonology, that jointly characterize (...) certain classes of linguistic objects" (cf. Fillmore, 1999: 113). Particular semantic structures together with their associated formal expressions are therefore recognised as representational units: the ditransitive construction, the caused motion construction, the resultative construction, the intransitive motion construction, the passive construction, among others.

According to Goldberg (1995), a distinct construction is said to exist if one or more of its properties are not strictly predictable from knowledge of other constructions existing in the language. Most of the obligatory and non-obligatory full inversion types analysed in this research are clear examples of constructions in Goldberg's sense: that is, they are instances of distinct constructions whose meaning and/or form is not compositionally derived from other constructions existing in the grammar. As an example, the obligatory full inversion types discussed in this research, for which there is often no real canonical word-order alternative (cf. 4.1), can be considered "unique constructions" in English. They must be "listed" as a closed set (cf. Goldberg 1995), since they are not strictly predictable from other aspects of the grammar, and carry a particular meaning which can only be conveyed through them when the whole structure is used. For instance, as already noted (cf. 4.1), the inversion pattern in an obligatory adverb phrase inversion triggered by clause-initial so expresses a parallelism, cf. (1a), lacks an equivalent with canonical word-order, and can be simply paraphrased with subject-verb order plus additive too, as shown in (1b) below. Similarly, the negative parallelism conveyed in an obligatory adverb phrase inversion triggered by neither or nor, cf. (2a), can merely be paraphrased with alternative SVO word-order plus either, cf. (2b), because the meaning is constructional. Another example is found in obligatory subordinator inversions in which the fixed noun phrase the case, functioning as subject, is conventionally placed in postverbal position, as illustrated in (3). In this example, as was the case with most
other British Indian Populations expresses a parallelism with the preceding clause. Instances of this construction imply that the information coded in the argument of the superordinate clause is also applied to that of the subordinate clause. For instance, (3) entails that most other British Columbia Indian Populations also lacked a segment with acquired immunity. This meaning cannot be conveyed through SVO word-order, because it is not grammatically available.
(1) a. He is open for student suggestions or questions and so is Margaret Phillips, area coordinator for Neptune and Gilbert Halls.
b. He is open for student suggestions or questions and Margaret Phillips, area coordinator for Neptune and Gilbert Halls, is so too.
(FROWN, reportage. A27)
(2) a. They did not fall uniformly. Nor was there a clearly marked hiatus around the turn of the century.
b. They did not fall uniformly. There was not either a clearly marked hiatus around the turn of the century.
(FLOB, science. J31)
(3) There was no segment with acquired immunity, as was the case with most other British Columbia Indian Populations.
(FROWN, science. J26)

Constructions such as these may therefore be seen as primitive units of grammatical organisation. They form a system of form-meaning pairs, that is, symbolic units in cognitivist terms (cf. Langacker 1987: Ch. 2), which make up one layer of the mental representations of grammatical knowledge. Goldberg and Jackendoff (2004: 532-533) illustrate three useful ways in which the recognition of constructions or symbolic units is possible:
a) Constructions have unusual syntax and/or bits of specified morphology, as illustrated in (4)-(6) below.
(4) Their reception, their critical transformation of new ideas, let alone their own discoveries, remain unknown and forcibly localized. ("Let alone"construction).
(FLOB, science. J65)
(5) In any context in which the premises are acceptable, so is the conclusion. ("So is the conclusion"; so + be + NP construction).
(FLOB, science. J54)
(6) However, that likelihood necessarily increases in an elaborated discussion of form, meaning, and interpretation, as was the case in the first procedure. ("As was the case"; As + be + the case construction).
(FROWN, science. J34)
b) Constructions have some special meaning attached that brings about special restrictions, as shown in (7) where the meaning is presentative.
(7) Oh, she must have finished, here is the patient now. (restriction: the verb must be come, go, or be)
(FLOB, romance and love story. P15)
c) Constructions contain a special element that signals the construction, and occupies a standard syntactic position, as can be seen in (8) and (9).
(8) Third was the steel eight-foot fence at the edge of the paved playground of the school they had all attended until June and would attend again in September. (sequential-construction).
(FROWN, general fiction. K16)
(9) Nor are the monumental display scripts of the two books particularly close. (Nor-construction).
(FLOB, science. J67)

Most of the obligatory full inversion types discussed in this research seem to fall into one or other of these three subtypes and, in each case, some special interpretation is associated with the syntactic structure. For instance, the So $+b e+N P$ construction in (5) means, informally, 'if the premises are acceptable, then the NP, namely the conclusion, is also acceptable'.

Constructions are idiomatic or fixed not only because there is no comparable word-order variant or this conveys a different meaning, but also because they specify a pragmatic or semantic meaning that is distinct from what might be calculated from the associated semantics of the set of items that make up the whole syntactic template.

Construction Grammar does not only recognise constructions as theoretical entities but also views grammar as being essentially made up of a very large set of constructions that form an interconnected, structured system or network. One of the main features of this network is that its components differ from one another but are also related to one another through different forms of inheritance (Goldberg 1995: 72 ff .). Inheritance allows one to capture the fact that two constructions may be in some ways distinct but in other ways similar. This is why two parent constructions with partially conflicting specifications contribute to a daughter construction in such a way that the latter may display selective features of the former in what is to be regarded as a sort of novel and unique structural creation. In fact, recent research has shown that whole syntactic templates may have prototypical structure in that they are grouped in relation to a unit in the schematic network which is naturally most salient - the prototype - and form with it a family of nodes - extensions from the prototype - in the system. Despite their formal and functional dissimilarities, the full inversions studied in this research still relate to one another in systematic and predictable ways.

The notion of inheritance links referred to above may be the best way to capture the structure of full inversion. As an example, the prototypical obligatory full inversion is the presentative inversion construction, which is skeletally represented as illustrated in Table 28 (where VB is basically restricted to the verbs be, go or come, and DA codes the deictic adverb here, there, now, or then):

Table 28. The presentative inversion construction [DA + VB + SUBJ]

| $[\mathrm{DA}+$ | VB | + SUBJ $]$ |
| :--- | :---: | :---: |
| Here | Be | NP |
| There | Go |  |
| Now |  |  |
| Then | Come |  |

Instances of this construction imply that the subject, which is the new information, is presented for the first time in the discourse. The construction is unique in that an alternative with non-inverted word-order is grammatically unavailable or there is a sharp difference in meaning between the inverted construction and its canonical counterpart, cf. (10)-(11) below. In addition, this is the only construction in which the clause-initial constituent followed by the verb is always the deictic adverb here, there, now, or then. This clause-initial element, however, has been partially bleached of its locative meaning, and rather serves a formulaic presentative function. Such a bleaching is characteristic of a grammaticalisation process that fixes the construction as a distinct unit.
(10) Here comes an opportunity for the health services.
(FROWN, reportage. A34)
(11) Here's a little quiz, multiple choice: Complete the following sentence: Network television stinks because of: A. Producers. B. Advertisers. C. Networks. D. Dan. E. All of the above. You could make a case for any of these choices, but my pick would be: C. Networks. Let's face it, if you've spent more than 20 minutes in the television business, you know you can run a network better than "those guys." I mean, c'mon, let's be honest about it. If television was a dog, that dog wouldn't hunt. It's not very smart. It's not very funny. It's not very truthful, or very real. It's not very enlightening, and only occasionally thoughtful. In short, it's just not very good. No wonder viewers are deserting the ship. The ship is going down, folks.
(FROWN, reportage. A42)

Three constructions extend from the prototype: 1) the sequential inversion construction, 2) the additive inversion construction, and 3) the subordinator inversion construction. The sequential inversion construction occurs when the clause-initial deictic constituent in the presentative inversion construction is replaced by an enumerative listing conjunct (cf. Quirk et al. 1985: 635; see also Biber et al. 1999: 875), which includes ordinal numbers such as first, second, third, etc, and adverbs such as finally or lastly. This is skeletally illustrated in Table 29 below (where VB is basically restricted to the verbs be, go or come, and ELC codes the enumerative listing conjunct).

Table 29. The sequential inversion construction [ELC + VB + SUBJ]

| [ELC + | VB | + SUBJ] |
| :--- | :--- | :---: |
| First | Be | NP |
| Second | Go |  |
| Third | Come |  |
| Fourth |  |  |
| Finally |  |  |
| Lastly |  |  |

This construction, which basically occurs with go, be, and come, is unique in that in addition to its presentative function it allows the enumeration of pieces of information in an order chosen by the addressor, and performs a linking function, as illustrated in (12) below. In this example, the inversions allow the addressor to give a temporally structured explanation about the topic of the text. The inverted constructions in (12) differ in meaning from their canonical counterparts. In (12), the clause-initial constituents of the inversions, namely first, second, and finally, function as adverbial pointers which help to indicate the progression of events and mark the successive stages in discourse. The inversions cross an illocutionary border and
metalinguistically order the level of discourse. This would not occur in an SVO word-order, where first, second, and finally would no longer occupy a clause-initial position, and would simply convey a temporal meaning affecting the verb, without performing a cohesive function. Thus, the sequential inversion constructions explicitly signal the links between ideas and the connections between passages in the text. In other words, they are unique constructions in signalling the macrostructual sectioning of a text and create textual cohesion.
(12) Because relevant statistics are few, we divide gay-bashing incidents into three types based on the age of the victim. First are serious physical assaults and homicides committed against adult lesbians and gay males such as those reported in the House Criminal Justice Subcommittee hearings on Anti-Gay Violence (Committee on the Judiciary, 1986). These reported assaults are clearly the most serious ones and do not include the common, random beatings of homosexuals that occur in the streets, parks, and parking lots of America. Most assaults go unreported either because the victim fears being discredited by family, the law, or employers or because the assault was less serious, although still criminal. Second are assaults and related harassments of lesbian and gay male adolescents by their peers, such as those that gave rise to the Harvey Milk School in New York City for homosexual adolescents. The existence of such a school implies that mistreatment of homosexual adolescents is pervasive in the adolescent world. Finally, probably far more common than either of the other forms of assault and harassment are the beatings of effeminate boys, both future homosexuals and heterosexuals (Saghir \& Robins, 1973, pp. 18-23) that occur during childhood. These beatings occur because the boys do not confirm to the extremely rigid rules of the male gender role.
(FROWN, science. J43)

The additive inversion construction extends from the prototype when the clause-initial presentative constituent is replaced by so, neither, and nor functioning as additive adverbs, as illustrated in Table 30 (where VB is restricted to copular verb be).

Table 30. The additive inversion construction [ADD + VB + SUBJ]

| [ADD + | VB | + SUBJ] |
| :--- | :---: | :---: |
| So | Be | NP |
| Neither |  |  |
| Nor |  |  |

In this construction, the initial additive adverb so, nor, or neither stands for given information, and has a cohesive effect. Further, its location in clause-initial position emphasises the parallelism between both clauses as shown in (13a)-(15b). The inversions therefore do not express relations from within the scene but are useful for signalling connections between specific information in the development of the addressor's argument. They are unique in that there is no completely equivalent canonical word-order and can merely be paraphrased with subject-verb order plus additive too, or, or either, as shown in (13b)-(15b).
(13) a. But whaling was on the decline and so were the fortunes of the Kennedy family.
b. But whaling was on the decline and the fortunes of the Kennedy family were so too.
(FLOB, romance and love story. P20)
(14) a. Nor are there enough data to attempt the kind of indirect inference of $R$ from population level considerations.
b. There are not either enough data to attempt the kind of indirect inference of R from population level considerations.
(FLOB, science. J14)
(15) a. Primrose Cottage, when Pernelle viewed it the next day, was not, as she'd known, as big as Myrtle Cottage. Nor was it in such a good state of repair as Myrtle Cottage, and it in no way came up to Myrtle Cottage.
b. Primrose Cottage, when Pernelle viewed it the next day, was not, as she'd known, as big as Myrtle Cottage. It was not either in such a good state of repair as Myrtle Cottage, and it in no way came up to Myrtle Cottage.
(FLOB, romance and love story. P13)

A final extension from the prototype is the subordinator inversion construction which, as illustrated in Table 31, can only occur with the clause-initial subordinating as which is followed by copular be and the postposed noun phrase the case functioning as subject.

Table 31. The subordinator inversion construction [SUB + VB + SUBJ]

| [SUB + | VB | + SUBJ] |
| :--- | :---: | :---: |
| As | Be | NP |
|  |  | the case |

This fairly idiomatic construction in English is unique in that, together with its formal fixity, the informational content expressed by the subject, the case, also represents structurally fixed information which, together with as, expresses a parallelism with the preceding clause. This parallelism is even stronger than in the additive inversion construction because it is represented in the clause-initial and clause-final constituents in the clause. The construction therefore serves a comparative-linking function in which the information presented in the superordinate clause is also applied to the subordinate clause, as shown in (16). Such a comparative meaning cannot be conveyed through an SVO word-order, because it is not grammatically available.
(16) Both the profile and sonic-derived values are significantly smaller than those predicted by Jaeger, as is also the case with the data from Unsworth.
(FLOB, science. J10)

The previous brief discussion has shown that obligatory full inversion is an important construction in structuring grammar. All the obligatory full inversion constructions discussed above relate to one another through the prototype construction by virtue of the fact that they all share something with it (like the lexical item there in Lakoff's celebrated example of a
radial category, or the [SBJ DITRV OBJ1 OBJ2] schema in Goldberg's ditransitives; see (Taylor 1995: 116 ff.; Croft and Cruse 2004: 272 ff.). As illustrated in Table 32 below, the inversions share an underlying schema of the form XVS, where X obligatorily triggers the construction, they also contain an intransitive verb, and a postposed subject, and their function ranges from presenting to text-structuring information.

Table 32. Obligatory full inversion as a construction

| FUNCTION | CONSTRUCTION | SYNTACTIC TEMPLATE | CONSTRUCTIONAL FEATURES |
| :---: | :---: | :---: | :---: |
| PRESENTATIVE | PRESENTATIVE INVERSION CONSTRUCTION | [DA + VB + SUBJ] | Triggered by deictic adverbs: here, there, now and then |
|  |  |  | The verb is restricted to go, be and come. |
|  | SEQUENTIAL INVERSION CONSTRUCTION | [ELC + VB + SUBJ] | Triggered by enumerative listing conjuncts such as first, second, third, etc. |
|  |  |  | The verb is restricted to go, be and come. |
|  | ADDITIVE INVERSION CONSTRUCTION | [ADD + VB + SUBJ] | Triggered by additive adverbs so, neither, nor. |
|  |  |  | The verb is restricted to copular be. |
|  | SUBORDINATOR INVERSION CONSTRUCTION | [SUB + VB + SUBJ] | Triggered by subordinator as. |
|  |  |  | The verb is restricted to copular be. |
|  |  |  | The subject is restricted to the noun phrase the case. |

Inversion differs from other constructions in that it has to do with the order of the major constituents of the clause, namely subject and verb, relative to each other. The movement of these constituents conveys a special pragmatic and semantic effect which cannot be expressed with other constructions such as passives, cleft-constructions, left-dislocations, etc. Nevertheless, since construction grammar views grammar as being essentially made up of a very large set of constructions that form an interconnected system, it would be interesting to analyse the relations of obligatory full inversion with the other constructions which make
up the network. The analysis of these relations, which should also include the examination of non-obligatory full inversion, is not the aim of this dissertation but represents however an interesting avenue for future research.

## 5. SUMMARY AND CONCLUSIONS

This dissertation has presented the findings of a comprehensive corpus-based analysis of the various forms of full-verb inversion in written and spoken Present-day English. What follows is a summary of this analysis, together with the main conclusions, organised by chapter and section as in the dissertation itself.

Chapter 1 offered some theoretical preliminaries. Section 1.1 provided a definition of the term full-verb inversion, which has received a host of different names in the literature: inversion-over-verb (Green, 1985), Type-A inversion (Stein, 1995), subject-verb inversion (Biber et al., 1999), and subject-dependent inversion (Huddleston and Pullum, 2002), among others. The construction was defined as a syntactic structure in which "the subject occurs in postposed position while some other dependent of the verb is preposed" (Huddleston and Pullum 2002: 1385). It was distinguished from subject-operator inversion, which refers to those syntactic structures in which "the subject is preceded by the operator rather than by the main verb or a full verb phrase" (Biber et al. 1999: 911).

Section 1.2 dealt with an account of the inversion types which, for methodological reasons, were excluded from the analysis. This involved cases of verb-first inversions, that is, inversions in which the verb was the first syntactic constituent in the clause. The motivation for this exclusion was that the scope of the research was restricted to the analysis of verbsecond inversions in declarative clauses, that is, inversions in which the verb is placed in second position within the clause and is followed by the subject. Other types also excluded from the analysis were inversions in formulaic expressions, in exclamative and interrogative clauses, in appended clauses, inversions after a negated verb, inversions with temporal phrases, quotation inversions, and subject-operator inversions, which are on many occasions fairly stereotypical constructions.

Section 1.3 presented a classification of full inversion types based on formal criteria. The range of formal types included inversions with fronted prepositional phrases, adjective phrases, adverb phrases, present and past participles, and, in contrast to most studies, noun phrases and subordinating conjunctions. These six formal types were briefly compared in section 1.4 to several constructions - namely existential-‘there', preposing, left-dislocation, and equative structures - exhibiting syntactic and pragmatic similarities to full inversion, but also sufficient dissimilarities so as to be beyond the scope of this research.

Chapter 2 reviewed the literature on full inversion and showed that the construction is a complex structure which has been the subject of extensive linguistic research in the last decades from a syntactic, pragmatic, and semantic perspective in the generative (cf. 2.1) and, especially, functional (cf. 2.2) frameworks.

Section 2.1 showed that, from a syntactic point of view, full inversion has been mainly analysed in the generative framework, and work here has tended to concentrate on: 1) the analysis of the construction as a root-transformation device, and 2 ) the study of the syntactic category of the preverbal constituent. In the generative framework full inversion has traditionally been considered a root-transformation device, that is, exclusively a main-clause phenomenon (cf. Coopmans 1989). Some researchers have shown, however, that even though inversion is overwhelmingly a main-clause construction, it may occur in embedded clauses as well (cf. Birner 1996; Biber et al. 1999; Chen 2003, among others). Similarly, there is discrepancy among scholars as to the syntactic status of the preverbal and postverbal constituents. Some linguists (cf. Bresnan and Kanerva 1992a, 1992b) regard the preverbal constituent as the subject, whereas others consider that the subject function is realised by the postverbal constituent (cf. Schachter 1992). A detailed assessment of this controversy was not
given in this dissertation however, as generative accounts pay little or no attention to the specifics of full inversion, which is the central concern of the present study.

Section 2.2 showed that functionally-oriented studies of full inversion have been mostly corpus-based, and have adopted two main approaches: a textual or discourse-related approach (cf. 2.2.1) and an information packaging approach (cf. 2.2.2). The textual or discourse-related approach has mainly examined full inversion as a focussing presentative device. Rochemont (1986), for instance, asserts that the postverbal constituent is syntactically identified as the presentational focus and constitutes new information. This presentative function of full inversion, known as "the vividness function", is also accepted by Bolinger (1977), Dubrig (1988) and Green (1980, 1982) among others. Nevertheless, Green understands the phenomenon of inversion in a broader sense and her analyses also deal with subject-operator and quotation inversions. On the basis of her results, which are based on a fairly heterogeneous corpus, Green argues that inversion may be exploited for several functions, ranging from facilitating fluent speech to creating a variety of rhetorical effects (cf. Green 1980). She further argues that it is not on the basis of spoken versus written language that addressors discriminate contexts for inversions (cf. Green 1982), but on the basis of colloquial versus literary language (cf. 2.2.1).

The information packaging account of full inversion is, as argued in section 2.2.2, best summarised in Birner (1992, 1994, 1995, 1996, 1998), even though previous accounts do exist, such as those of Hartvigson and Jakobsen (1974) and Penhallurick (1984). This approach regards full inversion as a means of maintaining the principle of end-focus, and the order of given before new information. Birner's analyses are based on a corpus of 1778 selfcollected instances of full inversion, which although not an appropriate source of data for drawing statistical conclusions, does allow descriptive claims about the construction to be
made. Birner (1992) claims that full inversion serves an information packaging function linking relatively unfamiliar information to the prior discourse, because of the clause-initial placement of information which is relatively familiar to the discourse. Her analysis is based on the notion of information status and its given/new distinction, and ultimately rests on Prince's 1981 idea of givenness and her scale of assumed familiarity, namely evoked, unused, inferable, containing inferable, brand-new anchored and brand-new information (cf. 2.2.2). This gradation allows Birner (1994) to posit a pragmatic constraint on inversion, namely that full inversion can only be felicitous if the preposed constituent in full inversion is not be newer in the discourse than the postposed one. Such a claim is maintained in Birner (1996) where, in order to solve certain caveats in her proposal, she simplifies Prince's scale of assumed familiarity and makes use of a new one to classify information familiarity into discourse-new - namely brand-new or unused information - and discourse-given - namely inferable or evoked information. Birner's claims, for which this research proposed some counterexamples, seem to be based on a binary distinction of information states, that is, given or new, with no gradation in between.

Section 2.3 dealt with Dorgeloh (1997), which represents the most comprehensive text-based functional account of inversion to date. Here, both full inversion and subjectoperator inversion are examined and compared in British and American English written texts dating from the 1960 's. In particular, five non-fictional textual categories are analysed: Press reportage, Press editorial, Press review, Belles-lettres/Biographies/Essays, and Science. Dorgeloh's analysis of the frequency of inversion shows similar results in British and American English. However, the analysis of the frequency of inversion in the five discourse categories suggests that the construction is most commonly found in Belleslettres/Biographies/Essays, followed by Press editorial and Press review, and that it is least
common in Press reportage and Science. On the basis of these results, Dorgeloh claims that inversion comprises an additional "subjective meaning", namely the expression of point of view and focus management by the addressor, since text categories containing more subjective styles exhibited a higher proportion of inversions. Nevertheless, as argued in the present study, to consider inversion as a marker of subjectivity is problematic. If full inversion encodes a component of subjectivity, namely the expression of point of view, because "it is perceived by the hearer as a speaker-based choice concerning the relative ordering of elements in the clause" (Dorgeloh 1997: 5), then the notion subjectivity could be applied to all allosentences in English, and thus prove too broad to account for the differences between clause patterns exhibiting marked word order.

Section 2.4 was concerned with Kreyer (2004), who analyses full inversion in writtenacademic and prose-fictional British English texts from both a textual-based and an information packaging perspective. In Kreyer's analysis, full inversion is more commonly found in non-fictional than fictional texts, even though other investigations find opposite results (cf. Biber et al. 1999, among others). Three factors are claimed by Kreyer to have an influence on full inversion: syntactic complexity, information status, and the language user as a creative writer. Kreyer argues that most instances of full inversion contain a postverbal constituent that is syntactically heavier than the preverbal one. He also argues that syntactic complexity works in combination with information status, since in the majority of instances drawn from his data the postposed constituent represents new information and the preposed constituent given information. Finally, according to Kreyer, full inversion does not only serve an information packaging function, but may be used deliberately by the writer to achieve certain intended effects, namely a text-structuring function - topic-introduction, subtopic
introduction, topic-shift, and subtopic shift - and the illusion of immediate perception, which allows the addressee to understand better the information which is being conveyed.

Section 2.5 was concerned with Chen (2003), the most comprehensive account of full inversion in the cognitive linguistic framework. The construction is analysed in a selfcollected corpus and is regarded as an instantiation of the Ground-before-Figure cognitive model, based on the figure/ground distinction derived from Gestalt psychology (cf. Langacker 1987). Chen states that it is sometimes cognitively efficient to present the ground before the figure, and this may be done with full inversion where the addressee's attention is first directed to the ground, after which the figure is introduced. He views full inversion as a radial category with its prototype and extensions from the prototype: LOC BE inversion, PATH Vm inversion and NSPAT BE inversion. LOC BE inversion (locative + be + subject), which according to Chen is found more frequently in description and narrations, is considered the prototype. The second type of inversion, which extends from LOC BE and occurs more frequently in narration, is the PATH Vm inversion (path constituent + verb of motion + subject). Finally, a further extension from the prototype, which Chen argues is restricted to exposition, is labelled NSPAT BE (non-spatial constituent $+b e+$ subject).

The review of previous work on full inversion concluded that there was still need for further research. Firstly, the review found that complete agreement regarding the distribution of the construction in written fictional and non-fictional texts had not been reached. Secondly, it was shown that there was need for a more comprehensive corpus-based analysis of full inversion in different genres, since most previous accounts suffered from limitations regarding the corpora or genres analysed. Chen (2003), for instance, studied full inversion in a personal corpus and subsumed all its texts as belonging to three different types of discourse, namely description, narration, and exposition, with rather fuzzy boundaries. Similarly, Kreyer
(2004) simply distinguished between fictional and academic texts in his corpus, whereas Dorgeloh (1997) examined full inversion in five non-fictional textual categories but also dealt with subject-operator inversion. Finally, it was also shown that a corpus-based analysis of full inversion in the spoken language was needed, since scholars have devoted little space to this issue, suggesting that speech is not a good source of inversions for linguistic study. The present dissertation has given the first thorough corpus-based analysis of full inversion in the spoken language, and has demonstrated that speech can also be a good source of data for this construction.

Chapter 3 presented a description of the corpora used in the study, the sampling techniques used, and the search methodology applied. Four computerised corpora were selected in the analysis. For written English (cf. 3.1), these were the Freiburg-Lancaster-Oslo-Bergen Corpus of British English (FLOB; compilation date: 1991) and the FreiburgBrown Corpus of American English (FROWN; compilation date: 1992). For spoken English (cf. 3.2), The International Corpus of English: the British Component (ICE-GB; compilation date: 1990-1993) and the Corpus of Spoken Professional American English (CSPAE; compilation date: 1994-1998) were used. As shown in 3.3, the total size of the corpus used was $1,804,000$ words. The written corpora comprised $1,084,000$ words distributed into fictional textual categories - Science fiction, Western, Mystery and detective fiction, Romance fiction, General fiction - and non-fictional textual categories - Science, Press reportage, and Miscellaneous (cf. 3.3.1). The spoken corpora comprised 720,000 words, and included Monologues and Dialogues of formal spoken discourse, as well as texts collected from Conference meetings and Faculty meetings. These Monologues contained scripted Broadcast news, Broadcast talks, Non-broadcast talks - and unscripted - Unscripted speech, Demonstrations, Legal presentations - texts (cf. 3.3.2). The Dialogues contained texts related
to Classroom lessons, Broadcast discussions, Broadcast interviews, Parliamentary debates, Legal cross-examinations, and Business transactions. In turn, the Conference and Faculty meetings included questions, interactions and involved statements and discussions of political and academic issues. The analysis of the corpora texts was mainly performed manually (cf. 3.4), given that FLOB and FROWN are neither tagged nor parsed, and CSPAE is only tagged. An automated search for full inversions was only possible in the spoken texts analysed in ICE-GB, a parsed corpus where every clause has been syntactically analysed (cf. 3.4.1). For this purpose, the computer program ICECUP version 3.0 was used in the study (cf. 3.4.2).

Chapter 4 presented the analysis of full inversion in the written and spoken corpora. As a first step (cf. 4.1), the different full inversion types, namely prepositional phrase, adverb phrase, verb phrase, adjective phrase, noun phrase, and subordinator inversion, were further classified into two main groups: non-obligatory and obligatory full inversions. Obligatory full inversions are those constructions in which the inversion is obligatorily triggered by the clause-initial constituent, since the non-inverted version is ungrammatical or conveys a different meaning. On the basis of the data retrieved from the corpora, this mainly includes: 1) adverb phrase full inversions triggered by a deictic adverb such as here, now, there, then, 2) adverb phrase full inversions triggered by enumerative listing conjuncts such as first, second, third, fourth, finally, lastly, etc, 3) adverb phrase full inversions triggered by anaphoric or additive so, neither or nor, and 4) subordinator full inversions in which subordinating as is followed by copular be and the fixed noun phrase the case.

Section 4.1.1 dealt with the analysis of obligatory full inversion in written English. The fictional and non-fictional genres showed a similar number of obligatory full inversions, but differed significantly in their use of the different types of obligatory full inversion mentioned above. Obligatory adverb phrase inversion introduced by temporal and spatial
deictics, which is the prototypical obligatory full inversion in speech (cf. 4.2.1), was more commonly found in fiction than in non-fiction, since fiction included first person narrations and direct speech contexts in which conversational features were also present. The nonfictional categories, especially those of Science and Miscellaneous, are less conversationally oriented and fewer inversions of this kind were found. The other types of obligatory full inversions - namely adverb phrase inversion triggered by enumerative listing conjuncts, adverb phrase full inversions triggered by anaphoric or additive so, neither or nor, and subordinator full inversions in which subordinating as is followed by copular be and the fixed noun phrase the case - were more commonly attested in non-fiction than in fiction. This was especially the case in Science, where these kinds of obligatory full inversions are used to compare ideas concepts or results, and to create textual cohesion while structuring the linear development of arguments. Such a linear development is rarer in fiction where topics are less structurable, and fewer inversions of this kind were attested.

Section 4.1.2 was concerned with the analysis of non-obligatory full inversion in written English. In contrast to previous studies (cf. Green 1982; Dorgeloh 1997; Denison 1998; Biber et al. 1999; Kreyer 2004), the present analysis demonstrated that fiction and nonfiction do not differ in the overall distribution of non-obligatory full inversion. Rather, both genres differed in the types of non-obligatory full inversion used, and in the different functions that these inversions serve in them. Section 4.1.2.1 showed that prepositional phrase, adverb phrase, and verb phrase inversion were far more commonly found in the fictional texts than in the non-fictional texts. In addition to statistical differences, the analysis also showed that the kind of clause-initial constituent in these three inversion types differed in both genres. Fictional texts, which contain substantial reference to past time and places (cf. Biber 1988), showed a strong preference for the use of clause-initial constituents conveying a
locative meaning, and prepositional phrase, adverb phrase, and verb phrase inversion were used in contexts where a physical arrangement was described. With the exception of the Press reportage category, whose texts also include some narrative portions, this was not the case in non-fictional texts. Here texts made less use of prepositional phrase, adverb phrase, and verb phrase inversion triggered by a locative constituent because they included fewer spatial, physical and temporal descriptions, which are the linguistic contexts in which these inversions tend to occur. On the basis of these findings, the present analysis argued that prepositional phrase, adverb phrase, and verb phrase inversions could be considered markers of spatial experiential iconicity in fictional discourse (cf. Enkvist 1981). This iconicity, which is a variant of diagrammatic iconicity in the sense of Peirce (cf. Haiman 1980), may be found in literary descriptions imitating in their structure the process of the (visual) experience in reallife. The process of perception in real life functions in such a way that viewers perceive salient entities first, and only afterwards do they focus on the ground. Nevertheless, this is done in a spatial context which is not only essential in the interpretation of the figure but is also normally experienced or shared in the knowledge by both addressor and addressee. In fictional setting descriptions, however, this shared knowledge about the context does not necessarily take place, and the present study has shown that the importance of such a context can be conspicuously mirrored in the syntax by the writer through the iconic fronting of locative adverb and prepositional phrases and the postponement of the subject. The use of prepositional phrase, adverb phrase and verb phrase inversions as devices which create spatial experiential iconicity provides a means of shaping a descriptive discourse that follows the sequence of perceptual experience, and represents a common way of organising narrative discourse. The order of the constituents iconically resembles the importance of the spatial context in the interpretation of what is being described. The description is therefore structured
in a way which favours its understanding by the addressee, because the context encourages such an interpretation. Focussing on the context first is essential for contextualising the salient entity. Section 4.1.2.2 showed that noun phrase, adjective phrase, and subordinator inversions were far more frequently attested in non-fiction than in fiction. These inversions, which do not express a locative meaning, were not used as markers of spatial experiential iconicity in discourse but rather coded abstract relations and served merely a cohesive textstructuring function. Their higher frequency in non-fiction was related to the degree of abstractness of these texts, which typically contained fewer tense specifications and deictic elements.

Section 4.2 presented the analysis of full inversion in the spoken language. It was demonstrated that speech and writing do not differ strongly in the number of full inversions but rather in the different types of full inversion used. The written texts made a more frequent use of non-obligatory full inversion than of obligatory full inversion, whereas the spoken texts made a more frequent use of obligatory full inversion than of non-obligatory full inversion.

Section 4.2.1 showed that full inversion triggered by deictic adverbs, in presentative function, is the prototypical type of obligatory full inversion in spoken English. This obligatory full inversion type was more frequently attested in speech because its use rests on conditions of reciprocity where addressor and addressee are co-present or share a perceptual field in the discourse event. This is not the case in writing, which shows a complete absence of co-presence and interaction between writer and reader, except in direct speech situations where conversational features are present. Obligatory full inversions triggered by enumerative listing conjuncts, clause-initial so, neither, and nor, and obligatory full inversions with the fixed construction $a s+b e+$ the case were more frequently found in the written corpora than in the spoken corpora. These inversions, which perform a textual linking function, are needed
more in written language, which may not resort to non-syntactic devices such as intonational patterns to create cohesion.

Section 4.2.2 analysed the distribution of non-obligatory full inversion in the spoken language. Most prepositional phrase, adverb phrase, and verb phrase inversions found in the spoken corpora contained a clause-initial locative constituent and performed a spatial experiential iconic function (cf. 4.2.2.1). However, this was mainly restricted to the categories of Broadcast news and Broadcast talks, which included texts written to be read aloud, and where speaker and hearer do not share the same context when the discourse takes place. The rest of the spoken texts analysed in this study, which were not prepared to be read aloud, included contexts shared by speaker and hearer, and in these texts less frequent use of spatial experiential iconic prepositional, adverb, and verb phrase inversions was made. Similarly, noun phrase, adjective phrase, and subordinator inversion, which serve a text-structuring function, were less frequently attested in speech than in writing (cf. 4.2.2.2). This occurs because the spoken language, which is more fragmented in nature than the written language, may make use of intonational devices to express cohesion and hence can rely on fewer syntactic constructions for this purpose.

A final prospect for future research lies in the exploration of full inversion in the field of Construction Grammar (cf. 4.3), a cognitive linguistic theory which considers that basic sentences of English are instances of constructions, which in themselves carry meaning and exist independent of the lexical items which instantiate them (cf. Goldberg 1995). The present study showed that full inversion can be considered a construction in English, since most of the examples analysed relate to one another by sharing something with a prototype construction and have: 1) unusual syntax, 2) a special meaning attached that brings about special restrictions, and 3) a special element that signals the construction. As an example, a brief
constructional analysis of obligatory full inversion was presented in section 4.3. This distinguished a prototypical obligatory full inversion construction, namely presentative inversion, and three extensions from it, namely sequential, additive and subordinator inversion. The extensions, whose pragmatic meaning ranges from presentative to textstructuring, all shared with the prototype the presence of a clause-initial constituent which triggered the construction, an intransitive verb, and a postposed subject. The constructional analysis of full inversion may prove a rewarding area of study. It would, for example, be interesting to explore the phenomenon of non-obligatory full inversion as a construction, as well as its relations with obligatory full inversion and other word-order constructions. Such a comprehensive account would undoubtedly yield interesting findings and would cast further light on the syntactic and pragmatic use of the construction in the spoken and written language.

## APPENDIX I: THE CORPORA

Table 34. Composition of the Press editorial category in FLOB and FROWN

| SAMPLES | TEXTS |  |
| :---: | :---: | :---: |
| B01-04 | National Daily | Institutional editorial |
| B05-08 |  | Personal editorial |
| B09-11 |  | Letters to the editor |
|  |  |  |
| B12-13 | National Sunday | Institutional editorial |
| B14-15 |  | Personal editorial |
| B16 |  | Letters to the editor |
|  |  |  |
| B17-19 | Provincial Daily | Institutional editorial |
| B20-22 |  | Personal editorial |
| B23-24 |  | Letters to the editor |
|  |  |  |
| B25 | Provincial Weekly | Institutional editorial |
| B26 |  | Personal editorial |
| B27 |  | Letters to the editor |
| Table 35. Composition of the Press review category in FLOB and FROWN |  |  |
| SAMPLES | TEXTS |  |
| C01-06 | National Daily |  |
| C07-11 | National Sunday |  |
| C12-14 | National weekly |  |
| C15-16 | Provincial Daily |  |
| C17 | Provincial Weekly |  |

Table 33. Composition of the Press reportage category in FLOB and FROWN

Table 39. Composition of the Belles-lettres, Biographies, and Essays category in FLOB and FROWN

| SAMPLES |  |
| :---: | :---: |
| G01-35 | TEXTS |
| G36-41 | Literary essays and criticism |
| G42-50 | Arts |
| G51-77 | General essays |

Table 40. Composition of the Miscellaneous category in FLOB and
FROWN

| SAMPLES | TEXTS |  |
| :---: | :---: | :---: |
| H01-12 | Government documents | Reports, department publications |
| H13-14 |  | Acts, treaties |
| H15-19 |  | Proceedings, debates |
| H20-24 |  | Other Government documents |
| H25-26 | Foundation reports |  |
| H27-28 | Industry reports |  |
| H29 | University catalogue |  |
| H30 | In-house industry |  |

Table 36. Composition of the Religion category in FLOB and FROWN



Table 38. Composition of the Popular Lore category in FLOB and FROWN

Table 43. Composition of the Mystery and Detective Fiction category in FLOB and FROWN

Table 44. Composition of the Science Fiction category in FLOB and FROWN

Table 45. Composition of the Adventure and Western category in FLOB and FROWN


Table 46. Composition of the Romance and Love Story category in FLOB and FROWN


Table 47. Composition of the Humour category in FLOB and FROWN | SAMPLES | TEXTS |
| :---: | :---: |
| R01-03 | Novels |
| R04-06 | Articles from periodicals |
| R07-09 | $\begin{array}{c}\text { Articles from humorous books other } \\ \text { than novels }\end{array}$ |

Table 41. Composition of the Science category in FLOB and FROWN

| SAMPLES | TEXTS |  |
| :---: | :---: | :---: |
| J01-12 | Natural sciences |  |
| J13-17 | Medical sciences |  |
| J18-21 | Mathematics |  |
| J22-25 | Social, behavioural sciences | Psychology |
| J26-30 |  | Sociology |
| J31 |  | Demography |
| J32-35 |  | Linguistics |
| J36-39 | Political science, law, education | Education |
| J40-47 |  | Politics and economics |
| J48-50 |  | Law |
| J51-54 | Humanities | Philosophy |
| J55-59 |  | History |
| J60-63 |  | Literary criticism |
| J64-67 |  | Art |
| J68 |  | Music |
| J69-80 | Technology and engineering |  |

Table 42. Composition of the General Fiction category in FLOB and FROWN

Table 48. General composition and distribution of the spoken texts in ICE-GB

Table 49. General composition and distribution of the written texts in ICE-GB


Table 50. General composition and distribution of the spoken texts in CSPAE


## APPENDIX II: TEXTS SELECTED FROM THE CORPORA

Table 51. Sources and distributions of the texts selected from CSPAE

| FACULTY MEETINGS |  | COMMITTEE MEETINGS |  |
| :---: | :---: | :---: | :---: |
| TEXTS | WORDS | TEXTS | WORDS |
| Facmt95 | 51,000 | Comm597 | 93,000 |
| Facmt96 | 45,000 | Comm697 | 110,000 |
| Facmt97 | 66,000 | 200,000 |  |
| TOTAL | $\mathbf{1 6 0 , 0 0 0}$ | 360,000 WORDS |  |

Table 52. Sources and distributions of the texts selected from FLOB and FROWN

Table 53. Sources and distributions of the corpus texts selected from ICE-GB

| 1. DIALOGUES |  |  | 2. MONOLOGUES |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBSECTIONS |  |  | SUBSECTIONS |  |  | SUBSECTIONS |  |  |
| $\begin{gathered} \text { B } \\ \text { PUBLIC } \\ \hline \end{gathered}$ |  |  | BSCRIPTED |  |  | UNSCRIPTED |  |  |
| TEXTS | SAMPLES | WORDS | TEXTS | SAMPLES | WORDS | TEXTS | SAMPLES | WORDS |
| $\begin{gathered} \text { Classroom } \\ \text { lessons } \\ \hline \end{gathered}$ | 001-020 | 40,000 | Broadcast talks | 021-040 | 40,000 | Unscripted speech | 021-050 | 60,000 |
| Broadcast discussions | 021-040 | 40,000 | Non- broadcast talks | 041-050 | 20,000 | Demonstrations | 051-060 | 20,000 |
| Broadcast interviews | 041-050 | 20,000 | Broadcast news | 001-020 | 40,000 | Legal presentations | 061-070 | 20,000 |
| Parliamentary debates | 051-060 | 20,000 |  |  |  |  |  |  |
| Legal crossexaminations | 061-070 | 20,000 |  |  |  |  |  |  |
| $\begin{gathered} \text { Business } \\ \text { transactions } \end{gathered}$ | 071-080 | 20,000 |  |  |  |  |  |  |
|  | 80 | 160,000 |  | 50 | 100,000 |  | 50 | 100,000 |
| TOTAL | 180 SAMPLES 360,000 WORDS |  |  |  |  |  |  |  |

## APPENDIX III: THE DATA

| TEXTS | SAMPLES | FLOB: PRESS REPORTAGE |
| :---: | :---: | :---: |
| NATIONAL DAILY POLITICAL | A03 | 14-Far more painful for him was the realisation that Margaret Thatcher, his predecessor, had emerged from enforced retirement to champion the cause of the refugees. |
| NATIONAL DAILY POLITICAL | A04 | 98-As must be the case in many of the local election now under way "bloody London" birthplace of the poll tax and instigator of the squeeze on local spending - is probably more crucial to Nottingham than who runs the council. |
| NATIONAL DAILY POLITICAL | A06 | 93- Fifth, and decisively, is the question mark over the real level of support for the Government. |
| NATIONAL DAILY SPORTS | A07 | 148-Top of our heroes was Eamon Darcy, whose level-par round for a three-under aggregate was good enough for joint fifth place and enough money to ensure a Ryder Cup place at the start of the season. |
|  |  | 191-Next best at 13-2 is Generous's St Leger winning stable companion Snurge - only certain to run if the ground does not turn fast. |
| NATIONAL DAILY SPORTS | A08 | 78-Not only are Hampshire without their desperately unlucky captain, who loves this event enough to attend it every year as a spectator, but also their most prolific batsman, Chris Smith. |
|  |  | 84-More significant, however, than these negative factors are the positive ones in favour of Surrey. |
| NATIONAL DAILY SPOT NEWS | A11 | 2-In its centre is the Bristol Museum and Art Gallery, almost 170 years old and occupying a listed Edwardian building (Our Arts Correspondent writes). |
| NATIONAL DAILY FINANCIAL | A16 | 187-A takeover might be the market's solution to the problem of underperformance. |
| NATIONAL DAILY CULTURAL | A17 | 116-About the only places where you can do that now are the RSC and the National. |
|  |  | 139-Just down the coast at Cromer is the last end-of-pier variety show. |
| NATIONAL DAILY CULTURAL | A18 | 2-In the bottom right-hand corner is a picture of Shakespeare over-printed with the words "Cheque guarantee". |
|  |  | 162-More than our brother is our chastity. |
|  |  | 210-An even more extreme example was Yukio Ninagawa's unforgettable Japanese Macbeth, seen in Edinburgh and London, which shifted the action to a world of $16^{\text {th }}$ century Samurai warriors, blood-red sunsets and cascading cherry-blossom symbolising death and human transience. |
| NATIONAL SUNDAY POLITICAL | A21 | 234-Favoured substitute for the Libs' Paddy Ashdown is David Steel. |
| NATIONAL SUNDAY SPORTS | A23 | 198-On top of that was the class work of Campese and Lynagh. |
|  |  | 204-Almost the last move of the match was Lynagh's wicked kick to the England posts. |


| TEXTS | SAMPLES | FLOB: PRESS REPORTAGE |
| :---: | :---: | :---: |
| NATIONAL SUNDAY SPOT NEWS | A24 | 16-Among them was the seriously injured driver of the Sprinter, Steve Carpenter, 36, of Fratton, Portsmouth, who was trapped in the wreckage of his cab. |
|  |  | 132-These men were very courageous - as was Sgt King. |
| NATIONAL SUNDAY FINANCIAL | A25 | 121-In one corner stands Michael, former chairman of UEI, the electronics and engineering group sold for pounds500 million to Carlton Communications in 1989. |
|  |  | 127-In the other corner stands Swinstead, SD-Scicon's founder. |
| NATIONAL SUNDAY CULTURAL | A26 | 205-Beside him was a table crammed with refreshments and medicaments. |
| PROVINCIAL DAILY POLITICAL | A27 | 223-Standing in for the bureau chief of Worldwide Television News was his first foreign assignment. |
| PROVINCIAL DAILY POLITICAL | A29 | 220-A major change is the shortening of court deadlines when deciding the future of children. |
| PROVINCIAL DAILY SPORTS | A32 | 110-Keeping the east of the county to the fore among the girls was Zoe Fisher, who competed at both levels and claimed two second places. |
| PROVINCIAL DAILY SPORTS | A37 | $\mathbf{8 0}$-Also present was the architect of the banking and bowling green, Coun Malcolm Riley, in his capacity as vice-chairman of Craven District Council. |
| PROVINCIAL DAILY FINANCIAL | A38 | 116-On the sales side are the experienced team of Stephen Arblaster, Roy Westbrook who have been with the company eight years. |
|  |  | 71-An auction is the answer to everyone with a home which is out of the ordinary. |
| PROVINCIAL DAILY CULTURAL | A40 | 40-Here is a major dilemma. |
|  |  | 171-So begins his umpteenth newcast. |
|  |  | 202-After Three-Go-Round came a spell as a reporter on Southern Television's Day by Day news show. |
| PROVINCIAL WEEKLY SPORTS | A43 | 213-Before the court with Clarke was Mark Moore, 19, of Cusack Crescent, who also admitted two charges of handling stolen goods. |
| PROVINCIAL WEEKLY CULTURAL | A44 | 85-More interestingly, though, around the room are a number of framed gold discs. |
|  |  | 94-On a nearby wall hangs a framed affidavit from Ringo Starr, made in an attempt to stop him buying the drumskin. |

TEXTS
36-Among these taxa were cold-temperate hardwoods such as Alnus, Betula, Corylus, Nyssa, Salix and Ulmus; cold-tolerant conifers such as Picea, Pinus andTsuga; warmtemperate conifers such as Carya and Liquidambar (still widespread), Ceridiphyllum and Glyptostobus (now restricted to eastern Asia), and Sequoia (now restricted to western North America); and subtropical taxa such as Engelhardtia.
213-At a few sites only is there pollen evidence of dwarf-shrub tundra in the Late Plionece: on Seward Peninsula, Alaska and in the Kolyma lowlands of northe-east Siberia.
214-A further essential element for controlled biological mineralisation is spatial
localisation.
237-A direct result of our biological studies has been the development of model chemical systems for the investigation of crystal or aggregate formation under carefully
111-Of more interest in the present context, however, is an experimental situation in which the admission process is not fast, but becomes comparable or even slower than the reaction timescale.
1-Also present are the exclusively deep-sea Limopsidae, along with deep-sea species of
11-Both the profile and sonic-derived values are significantly smaller than those predicted by Jaeger, as is also the case with the data from Unsworth.
18-Also noted from within Unit 1 are several ice-wedge casts.
149-A more frequent difficulty, and one that is easy to overlook, is the inadvertent prediction that may result from samples being tested of relatives who themselves do not wish for prediction.
153-Nor are there enough data to attempt the kind of indirect inference of $\mathbf{R}$ from population level considerations.

| TEXTS | SAMPLES | FLOB: SCIENCE |
| :---: | :---: | :---: |
| NATURAL SCIENCES | J01 | 36-Most important for nuclear reaction studies are Van de Graff accelerators in which ions are accelerated in an evacuated tube by an electrostatic field maintained between a high voltage terminal and an earth terminal, charge being conveyed to the high voltage terminal by a rotating belt or chain. |
|  |  | 8-Particularly difficult to unravel in fossil plants are the different appearances that can occur between different modes of preservation of the same species. |
| NATURAL SCIENCES | J02 | 23-Frequently-cited characters are glands, type of stomata, cell outline: features that cannot be readily identified in the field. |
| NATURAL SCIENCES | J04 | 36-Among these taxa were cold-temperate hardwoods such as Alnus, Betula, Corylus, Nyssa, Salix and Ulmus; cold-tolerant conifers such as Picea, Pinus andTsuga; warmtemperate conifers such as Carya and Liquidambar (still widespread), Ceridiphyllum and Glyptostobus (now restricted to eastern Asia), and Sequoia (now restricted to western North America); and subtropical taxa such as Engelhardtia. |
|  |  | 213-At a few sites only is there pollen evidence of dwarf-shrub tundra in the Late Plionece: on Seward Peninsula, Alaska and in the Kolyma lowlands of northe-east Siberia. |
|  |  | 214-A further essential element for controlled biological mineralisation is spatial localisation. |
| NATURAL SCIENCES | J05 | 237-A direct result of our biological studies has been the development of model chemical systems for the investigation of crystal or aggregate formation under carefully controlled experimental conditions. |
| NATURAL SCIENCES | J06 | 111-Of more interest in the present context, however, is an experimental situation in which the admission process is not fast, but becomes comparable or even slower than the reaction timescale. |
| NATURAL SCIENCES | J07 | 1-Also present are the exclusively deep-sea Limopsidae, along with deep-sea species of the mytilid genus Dacrydium and species of the mytilid Pectinidae and Arcidae. |
| NATURAL SCIENCES | J10 | 11-Both the profile and sonic-derived values are significantly smaller than those predicted by Jaeger, as is also the case with the data from Unsworth. |
| NATURAL SCIENCES | J11 | 18-Also noted from within Unit 1 are several ice-wedge casts. |
| MEDICAL SCIENCES | J13 | 149-A more frequent difficulty, and one that is easy to overlook, is the inadvertent prediction that may result from samples being tested of relatives who themselves do not wish for prediction. |
| MEDICAL SCIENCES | J14 | 153-Nor are there enough data to attempt the kind of indirect inference of $R$ from population level considerations. |


| TEXTS | SAMPLES | FLOB: SCIENCE |
| :---: | :---: | :---: |
| MATHEMATICS | J18 | 165-Not only is it a non-logical assumption needed for the derivation of arithmetic and hence an admission of failure in the logicist programme, but, being an existential axiom, it suggests a return to some form of Platonism. |
| MATHEMATICS | J21 | 24-A poison manifold is the better starting point. |
|  |  | 125-Still more significant is the remark that, because (1.3) involves only the density and not the function formula, the boundary conditions used in our discussion are for many purposes irrelevant. |
| PSYCHOLOGY | J22 | 135-It is not enough to demand that all vertices are the same type of point, and that so are all the Brianchon points. |
| PSYCHOLOGY | J23 | 50-An example of what is commonly regarded as inductive learning is the child's derivation of the linguistic rule added to the verb stem to form the past tense. |
| PSYCHOLOGY | J24 | 2-An example of this type of task is the Bakan task where single digits are presented on the screen and subjects have to detect a particular sequence such as three successive odd digits. |
| PSYCHOLOGY | J25 | 81-To this will be added the possible effect of interference during a saccade. |
| SOCIOLOGY | J26 | 24-A comprador mentality is the attitude that the best practices are invariably connected with the global capitalist system. |
| SOCIOLOGY | J28 | 73-Most influential are the acquisitive pressures on the younger generation. |
|  |  | 90-An example is the Malaysian government's enormous land development programme. |
| SOCIOLOGY | J29 | 131-Beyond this solid ground lies the dangerous and unstable terrain of the explanation of human action. |
|  |  | 201-Equally important is the fact that households may be composed of unrelated individuals or contain an extended family of two or more generations. |
| DEMOGRAPHY | J31 | 110-More significant, and contrary to conventional wisdom, is the pattern of change in these regional infant mortality rates. |
|  |  | 112-Nor was there a clearly marked hiatus around the turn of the century. |
| DEMOGRAPHY | J32 | 45-Nor is there any need to labour the point that the isolability of the particular mode of human behaviour that is pre-theoretically identifiable as "language" rests, operationally, upon the relatively clear, empirically determinate and theory-neutral, difference between speech and non-speech. |
| LINGUISTICS | J33 | 113-Even more interesting in terms of Knowledge 4 is the threshold question. |
| EDUCATION | J37 | 153-Such were the practical results of the commissioner's efforts to impose a scheme that no one in the locality had wanted. |
| EDUCATION | J39 | 1-A problem common to all clustering techniques is the difficulty in deciding on the most appropriate number of clusters to select. |


| TEXTS | SAMPLES | FLOB: SCIENCE |
| :---: | :---: | :---: |
| POLITICS ECONOMICS | J41 | 26-A well-known case is clean air. |
| POLITICS ECONOMICS | J41 | 196-Conservative efforts in 1990 to temper the effects of the poll tax and to slow down the implementation of NHS reform are evidence for the robustness of the Downsian median. So are the strenuous efforts of Neil Kinnock to lead the Labour Party to it. |
| POLITICS ECONOMICS | J42 | 74-More significant was the realisation that Singapore has lost the 'competitive edge' in manufacturing. |
|  |  | 94-Central to the policy has been the reduction of labour costs. |
| POLITICS ECONOMICS | J43 | 41-Also notable was the major borrowing of Imperial Russia. |
|  |  | 130-In the first are those associated with public policy failures, such as ill-designed high cost-low return development projects. |
| POLITICS | J47 | 193-Also greater is the cost. |
| LAW | J48 | 38-Frequently cited as problematic were the rules governing Bill of Review procedure in the court of Chancery. |
| LAW | J50 | 47-Behind the provisions of the Act lie at least two issues of principle on which there is wide disagreement and little scope for comprise. |
|  |  | 50-On the one side stand those who hold that human embryos have the same moral status as mature adults from the time of their conception onwards. |
|  |  | 58-On the other side stand those who believe that whatever status should accorded to the human embryo, it is less than that of mature adults and may therefore sometimes be outweighed by the interest of adults who stand to benefit from research or termination. |
|  |  | 92-Between these two versions of the right is a claim that the state should facilitate assisted reproduction by removing any rules of law which prevent individuals taking steps to overcome inability to have children. |
| PHILOSOPHY | J53 | 35-A special case of succession is "being next to". |
|  |  | 41-A special case of "being next to" is continuity. |
| PHILOSOPHY | J54 | 55-In any context in which the premises are acceptable, so is the conclusion. |
| HISTORY | J56 | 109-Not merely is he still alive but he is also at present the French Minister of War. |
| HISTORY | J58 | 99-A Conservative in name or spirit was always Chancellor of the Exchequer. |
| HISTORY | J59 | 14-Among the twelve were Sir Joshua Walmsley (president of both the Association and the Society); Cobden; Joseph Hume, the promoter of 'the Little Charter'; Samuel Morley; and Gilpin. |
|  |  | 104-Still more indicative of Tory disquiet was the formation in 1852 of a "defence Society". |

FLOB: SCIENCE

| TEXTS | SAMPLES | FLOB: SCIENCE |
| :---: | :---: | :---: |
| LITERARY CRITICISM | J61 | 63-Even more are they the begetters of song. |
|  |  | 204-Above her were people - no, beings. |
| LITERARY CRITICISM | J62 | 64-Central to Bleich's epistemology is the individual's capacity for reflective thought. |
|  |  | 212-Here is the nose, here the chin. |
| LITERARY CRITICISM | J63 | 77-In both the female narrator displays an oddly masculine misogyny: our Sex seldom wants matter of Tattle how wretched are our Sex, in being the unhappy Occasion of so many fatal Mischief it is the humour of our Sex, to deny most eagerly those Grants to Lovers, for which most tenderly we sigh, so contradictory are we to our selves. |
|  |  | 81-Such ambiguities are best understood as self-divisions - so contradictory are we to our selves. |
| ART | J64 | 109-Examples of this are the churches of Apostoloi, Athens (Agora), the original form of Andreas, Peristera and the Katholikon of the monastery at Molyvdoskepastos. |
|  |  | 114-Far more common (...) was the use of brick ornament. |
|  |  | 159-Below these (...) are usually images of single saints from the service books of the orthodox church. |
| ART | J67 | 11-The lectionary is closer to the mainstream of Anglo-Saxon art than is the Troper. |
|  |  | 17- Nor are the monumental display scripts of the two books particularly close. |
|  |  | 64-As is the case in both unillustrated Tropers. |
|  |  | 111-Of more immediate relevance are certain parallels to be seen in the decoration of a few English manuscripts of late eleventh-century to early twelfth-century date. |
|  |  | 117-More impressive are the analogies provided by Durham Cathedral Library. |
| MUSIC | J68 | 172-Among his teachers were R. O. Morris and Gordon Jacob. |
| TECHNOLOGY ENGINEERING | J70 | 168-An important consideration of the network transmission plan is the overall signal delay or "propagation time". |
| TECHNOLOGY ENGINEERING | J71 | 125-Thus can be realized the first result of having such large deformations. |
| TECHNOLOGY ENGINEERING | J74 | 22-A feature of modern rail operations (...) is the sensation felt on the ears from air pressure pulses propagated by the trains' motion through tunnels. |
| TECHNOLOGY ENGINEERING | J78 | 67-A highly important and significant element of this is the professional handling of intellectual property. |
| TECHNOLOGY ENGINEERING | J80 | 34-A further benefit is the saving in skilled man hours. |
|  |  | 46-A major advantage is the flexibility, enabling FFV to expend or adapt their use. |


| TEXTS | SAMPLES | FLOB: MISCELLANEOUS |
| :---: | :---: | :---: |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H05 | 139-Underlying the benefit estimates are increases in the numbers of retirement and invalidity pensioners and unemployment benefit recipients, though the number of widow pensioners is expected to continue to decline. |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H09 | 70-A common factor has often been the criminal use of motor vehicles. |
|  |  | 81-An example of this is "vehicle watch". |
|  |  | 208-Of particular note is the effort now being made to care for the victims of domestic violence. |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H10 | 153-More evident still was the belief that drinking and driving were necessary aspects of driver's social lives. |
| GOVERNMENT DOCUMENTS: <br> PROCEEDINGS, DEBATES | H15 | 57-Now is his chance to tell us how much. |
|  |  | 64-Now is his chance to tell us how much. |
|  |  | 78-Now is his chance to tell us. |
|  |  | 142-A more flexible labour market is the way to create wealth and jobs. |
| OTHER GOVERNMENT DOCUMENTS | H22 | 211-A scheme was the subject of substantial local controversy. |
| OTHER GOVERNMENT DOCUMENTS | H23 | 60-As has been the consistent pattern in recent years. |
| FOUNDATION REPORTS | H26 | 74-An important concept in this grand synthesis was the reflex. |
|  |  | 164- Here is Jesus Christ. |
|  |  | 165- Here are the Prophet Elias, the Emperor of the Universe, the Universal Empress, the Empress of Turkey, the only daughter of God Almighty, Queen Elizabeth, four Kings of England, one king of Scotland, the Duke of Kilmarnock, the inventor of perpetual motion, a man who has discovered the new elixir of life... and a lady who daily and nightly has delightful conversations with the Prince of Wales. |
|  |  | 211-Here is Clouston as you see. |
| INDUSTRY REPORTS | H28 | 116-Of just as much significance is the decline in brand loyalty. |





| TEXTS | SAMPLES | FLOB: ROMANCE AND LOVE STORY |
| :---: | :---: | :---: |
| NOVELS | P02 | 152-Here was a boy in uniform who seemed as unsuited to the life of a solider as the officer he had been detailed to serve. |
| NOVELS | P04 | 79-Now here was the solution, standing dewy-eyed before him. |
|  |  | 87-And there was Fanny rubbing sleep from her eyes and already glowering curiously at her. |
| NOVELS | P05 | 51-Most important this time were the letters which travelled beside Mr. Watson in a despatch-case. |
|  |  | 65-Outside was a Chaise he liked to drive himself. |
|  |  | 78-At the moment to be alone was all he wanted. |
|  |  | 155-In the Stalls were white and gold carved chairs. |
|  |  | 160-The whole effect was quite beautiful, as was the backdrop on the stage. |
| NOVELS | P08 | 71-On no account was she to move from the position he had achieved. |
| NOVELS | P10 | 41-She is a very beautiful girl and he is just of the age to be forming romantic attachments. So, of course, is she. |
| NOVELS | P13 | 147-Nor was it in such a good state of repair as Myrtle Cottage. |
|  |  | 153-Upstairs was a bedroom and a bathroom. |
| NOVELS | P15 | 74-There are the notes for your X -ray request. |
|  |  | 141-Here is the patient now. |
| NOVELS | P16 | 187-On the table beside him sat his crown, his sword and his dagger. |
| SHORT STORIES | P17 | 161-There, sitting in the window seat - her favourite position - was Elizabeth. |
| SHORT STORIES | P20 | 14-But whaling was on the decline and so were the fortunes of the Kennedy family. |
|  |  | 84-Here is Lizzie. |
| SHORT STORIES | P21 | 113-Along comes a handsome stranger to rescue me and I turn him down. |


| TEXTS | SAMPLES | FLOB: GENERAL FICTION |
| :---: | :---: | :---: |
| NOVELS | K02 | 134-Every now and then whined a fly and was sucked into the past with dizzy speed. |
| NOVELS | K03 | 131-Almost the biggest shock of the many I had sustained on my return home was the loss of the social cachet I had enjoyed for so many years. |
| NOVELS | K10 | 46-Then came a bewildered pause. |
|  |  | 97-Out of that trunk stepped our little Tiff. |
|  |  | 146-Then came another banging on the door. |
|  |  | 178-And here was bloody Saskia now. |
| NOVELS | K11 | 9-There is MacCready now. |
|  |  | 28-At the back was the biggest and most elaborate: a giraffe made from twenty pipe-cleaners. |
|  |  | 30-In front of that came an elephant with a long, baroque trunk, and a snake |
|  |  | 107-In front of the houses stood a row of To Let Signs. |
|  |  | 118-Around the walls were four or five mattresses, heaps of bedding, and an old sofa |
|  |  | 119-In the middle of the room was a table, at which sat a long-haired man, |
| NOVELS | K14 | 84-At bottom old- in the Home Office is the same human type as his counterpart in the Kremlin. |
|  |  | 181-Nor was I foolishly optimistic. |
|  |  | 182-Nor was it that talking about incineration and radiation gave me an illicit, unadmitted thrill. |
| NOVELS | K19 | 71-Apart from Donat's Sexton Square, across the bridge was the most fashionable part of the city. |
|  |  | 104-Here is my card. |
|  |  | 180-Here is the question. |
| SHORT STORIES | K22 | 102-It was strange to feel remorse for something he had not done, but here was his crime. |
|  |  | 122-Here was one. |
|  |  | 192-There, tapped inside, were two small squares of material. |
| SHORT STORIES | K23 | 49-Out came the cocaine. |
|  |  | 49-On went the Do Not Disturb sign. |
|  |  | 49-Off came their clothes. |
| SHORT STORIES | K25 | 35-Next door lived a friend by the name of Karl. |
|  |  | 221-Opposite is the fifties' fawn fireplace with the coal-effect electric fire. |
|  |  | 222-Near the window is a built-in display cabinet with willow-pattern plates. |
|  |  | 228-And here is Fanny Allen, decked out like a Christmas tree, skirt half up her backside. |
| SHORT STORIES | K28 | 10-On her face was the enigmatic kindly expression with which she greeted my little bids for independence. |
| SHORT STORIES | K29 | 36-Not only is the subject obscure but I have no grant or commission. |


| TEXTS | SAMPLES | FROWN: PRESS REPORTAGE |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { NATIONAL DAILY } \\ & \text { POLITICAL } \\ & \hline \end{aligned}$ | A01 | 21-Among those voting to override in the Senate was Democratic vice presidential nominee Al Gore, a co-author of the bill. |
| $\begin{gathered} \hline \text { NATIONAL DAILY } \\ \text { POLITICAL } \\ \hline \end{gathered}$ | A02 | 107-Also in the House of Representatives' bill was more than $\$ 65$ million for refurbishing the Presidio over the next two years. |
| $\begin{gathered} \hline \text { NATIONAL DAILY } \\ \text { POLITICAL } \\ \hline \end{gathered}$ | A04 | 167-Also working against the treaty are anemic national economies. |
| NATIONAL DAILY POLITICAL | A06 | 40- Therein lie the reasons for Clinton's confidence that he can stave off any Bush comeback. |
|  |  | 139-Also in the spotlight are the 34 clerks -fresh-scrubbed lawyers, mostly white males |
|  |  | 149-Adding to the debate is the fact that eight of nine justices now pool their clerks for the initial screening of cases. |
| NATIONAL DAILY SOCIETY | A09 | 157-Among the marchers were hard-core leftist street fighters known as 'autonomen.' |
|  |  | 196-Among the plans' proposals that are likely to generate debate is placing land-based Marine Corps aircraft on Navy carriers and assigning Air Force bomber pilot jobs to reservists. |
| $\begin{aligned} & \text { NATIONAL DAILY } \\ & \text { SOCIETY } \end{aligned}$ | A10 | 27-Here is a look at Clinton's areas of strength and weakness. |
|  |  | 119-Also evident is an underlying finding that nearly 80 percent of Americans think that the nation is on the wrong track. |
|  |  | 121-Here is a look at the president's record. |
| $\begin{aligned} & \hline \text { NATIONAL DAILY } \\ & \text { SPORTS NEWS } \\ & \hline \end{aligned}$ | A11 | 23-Before acceptance, of course, must come denial, anger and depression. |
| $\begin{aligned} & \hline \text { NATIONAL DAILY } \\ & \text { SPORTS NEWS } \\ & \hline \end{aligned}$ | A17 | 205-Others were wide receiver John Garrett; center Todd McGuire; tight Curtis Maxey; linebackers James Malone and Ken Swilling, defensive backs Sammy Lilly, Marcus Hopkins and Herbert James. |
| NATIONAL SUNDAY SPOT NEWS | A24 | 45-Less lucky - and apparently more promiscuous - was silent comedy genius Charlie Chaplin. |
| NATIONAL SUNDAY FINANCIAL | A25 | 40-Among those singled out in The Examiner for their extravagant tastes was Muni General Manager Johnny Stein. |
| PROVINCIAL DAILY CULTURAL | A27 | 79-Now is the appropriate time to make significant changes. |
|  |  | 149-He is open for student suggestions or questions and so is Margaret Phillips. |
| PROVINCIAL DAILYSPORTS | A33 | 21-Then came the revolting images of death in Sarajevo's marketplace, and the U.S., Britain. |
|  |  | 45-Key to that victory was support from far-right voters whose own candidate had been eliminated. |
| PROVINCIAL DAILY SPOT NEWS | A34 | 16-Among the lenders it labelled "Crippled Giants" were Wells Fargo and Security Pacific Corp. |
|  |  | 59-At the crux of the disagreement is whether loans should be on the banks' books at current market or at their original value. |


| TEXTS | SAMPLES | FROWN: PRESS REPORTAGE |
| :---: | :---: | :---: |
| PROVINCIAL DAILY SPOT NEWS | A36 | 26-Equally significant was the trading volume on the New York Stock Exchange. |
|  |  | 181-The U.S economy is still fragile, as are the economies in many of Ford's key overseas markets. |
| PROVINCIAL DAILY FINANCIAL | A38 | 66-Included are his seldom-seen and highly twisted essays in impressionism and the crude jokester works he called his vache (cow) paintings done during the late '40s in occupied Brussels. |
|  |  | 102-On the mantel is a clock with its time stopped at 12:43. |
|  |  | 103-On either side of it are two candlesticks empty of candles. |
|  |  | 107-Behind the clock is a mirror that reflects the clock's back and one of the candlesticks. |
|  |  | 112-Gathered together are paintings that reveal his interest in linguistics and appropriation of previously existing imagery. |
|  |  | 215-First, in 1986, came the departure of ACT founder William Ball. |
|  |  | 217-Then came the 1989 earthquake, which ravaged the Geary Theatre, ACT's home since 1967. |
| PROVINCIAL <br> WEEKLY SPORTS | A41 | 46-Thus cavorted Karena Brock-Carlyle, her husband John Carlyle and Gaye Baxley Manhatton. |
|  |  | 241-Under it is a photo of a dancer reading a Russian novel as he leaps across the room. |
| PROVINCIAL WEEKLY SOCIETY | A42 | 5-Here's a little quiz, multiple choice. |
|  |  | 46-Here are some of the things I'd try. |
|  |  | 166-Not officially part of the tour is CityArts, the city of Phoenix's Visual Arts Gallery |
|  |  | 169-Currently showing are mixed-media paintings of Jeff Falk. |
|  |  | 196- Playing the team members are Poitier, Dan Aykroyd, River Phoenix and Mary McDonnell. |
| PROVINCIAL WEEKLY SPOT NEWS | A43 | 11-But neither is MGM the industry deadbeat that it had become by 1991. |
|  |  | 56-Among MGM's upcoming releases is Gary Sinise's remake of John Steinbeck's "Of Mice \& men". |
|  |  | 65-Also on tap are another Beresford-Zanucks collaboration about blues legend Bessie Smith; "The Baboon Heart," a restaurant romance with Christian Slater and Marisa ("My cousin Vinny") Tomei; the comedy thriller "Cloak and Diaper" with Kathleen Turner; new films directed by Robert Townsend, John Schlesinger and Wes Craven, and "Son of the Pink Panther." |
| PROVINCIAL <br> WEEKLY CULTURAL | A44 | 26-Before this ugly edifice, and between it and the wheel-track of the street, was a grass-plot, much overgrown with burdock, pig-weed, apple-peru, and such unsightly vegetation. |
|  |  | 31-On one side of the portal and rooted almost at the threshold was a wild rose-bush, covered, in this month of June, with its delicate gems. |
|  |  | 42-On the breast of her gown, in fine red cloth, surrounded with an elaborate embroidery and fantastic flourishes of gold thread, appeared the letter $A$. |


| TEXTS | SAMPLES | FROWN: SCIENCE |
| :---: | :---: | :---: |
| NATURAL SCIENCES | J04 | 162-A basic equation relating the above generating functions is the viral theorem for the CPM. |
| NATURAL SCIENCES | J05 | 160-Among the interactions that are described is one involving arginine 200 binding to guanine in a manner similar to that described in Fig. 3. |
| NATURAL SCIENCES | J09 | 32-Among the earliest occurring within seconds of engagement of the TCR is the phosphorylation of a variety of substrates on tyrosine residues. |
| NATURAL SCIENCES | J10 | 186-A clear example would be the stochastically varying sex ratios of many social groups. |
| NATURAL SCIENCES | J12 | 32-Of interest is the observation that on day 7 , only $43.6 \%$ of the uterine horns were positive for pathology whereas $63.8 \%$ were isolation positive. |
|  |  | 140-Also comparable to humans is the short immunity to reinfection that occurs, with animals becoming susceptible to reinfection as early as 2 months after the resolution of a primary infection. |
| MEDICAL SCIENCES | J13 | 138-A principal advantage of the Nubian that remains to elemental analysis is the rich biocultural context within which the elemental data can be interpreted. |
|  |  | 219-Outlined below is a review of the literature pertaining to sex and age-related variation in elemental concentrations. |
| MEDICAL SCIENCES | J15 | 173-Among these MARPPs is tyrosine hydroxylase (TH) (Guitart et al., 1990), the rate-limiting enzyme in the biosynthesis of catecholamines. |
| MATHEMATICS | J19 | 69-Corresponding to each flat connection is the operator D. A. |
| MATHEMATICS | J20 | 147-Important to our construction of the map will be a decomposition of the formula into three domains determined by its coordinates. |
| PSYCHOLOGY | J23 | 216-Central to my argument is the following distinction: Institutions are not goods. |
| SOCIAL BEHAVIOURAL SCIENCES SOCIOLOGY | J26 | 208-There was no segment with acquired immunity, as was the case with most other British Columbia Indian Populations. |
|  |  | 213-A fourth factor was vaccine. |
| SOCIAL BEHAVIOURAL SCIENCES SOCIOLOGY | J27 | 59-Among the most important outcomes of the division of household are symbolic outcomes. |
| SOCIAL BEHAVIOURAL <br> SCIENCES SOCIOLOGY | J29 | 18-Also highlighted is the importance of analyzing children's language in the context of conversational turns in order to develop a fuller interpretation of utterances. |
| SOCIAL BEHAVIOURAL SCIENCES SOCIOLOGY | J30 | 59-Here are two men approaching 40 who sound like adolescents who have just discovered the world of ideas, with all the passion and excitement that goes with the discovery. |


| TEXTS | SAMPLES | FROWN: SCIENCE |
| :---: | :---: | :---: |
| SOCIAL BEHAVIOURAL SCIENCES DEMOGRAPHY | J31 | 84-Especially pertinent to the timing of an interpretation was a consideration of dynamics of transference. |
| SOCIAL BEHAVIOURAL SCIENCES LINGUISTICS | J32 | 52-Below are some of the recent applications of word frequency in contemporary investigations to show why the dirty word frequency in contemporary investigations. |
| SOCIAL BEHAVIOURAL SCIENCES LINGUISTICS | J34 | 6-At one extreme of NNS-NS divergences are the variables Imparfait vs. Pass Compos (39.5\% divergence) and de + Infinitive (34.7\%). |
|  |  | 10-At the other extreme is the A-over-A variable (14.4\%), exemplified by 6 tokens. |
|  |  | 60-Left unmentioned is the fact that minimal divergences for this structure are an embarrassment for the +/- UG distinction as a general predictor of NNS-NS differences. |
|  |  | 80-As was the case in the first procedure. |
| SOCIAL BEHAVIOURAL SCIENCES LINGUISTICS | J35 | 115-The nominal suffix is invariant, as is the verbal suffix in Barbare. |
| EDUCATION | J36 | 62-Gone was the new age of peace that seemed to have been dawning only weeks before. |
| EDUCATION | J37 | 78-First and foremost was the sea change in the international political climate brought about by the Soviet Union's acceptance of change in Eastern Europe. |
|  |  | 102- Also gone from the scene, however, were the most prominent of Ali Nasir Muhammad's hardline opponents. |
|  |  | 134- Nowhere was the bankruptcy of the PDRY'S system more apparent than in the petroleum sector. |
|  |  | 145-Against this somber backdrop came the changes in Moscow's policy toward Eastern Europe. |
| EDUCATION | J38 | 10-Underlying India's dismal productivity growth performance are structural and intrasectoral distortions. |
|  |  | 142-A leading obstacle is the greater openness of the most developing countries relative to India. |
|  |  | 179-The inegalitarian nature of public sector employment (...) and demands (...) is unlikely to be unique to India. So is the need to follow proagricultural policies if large welfare gains for the poor are a target. |
| POLITICS AND ECONOMICS | J40 | 35-As important as the quality of information disseminated is its timeliness. |
|  |  | 87-Among them are Fleet/Norstar, First Union, Barnett Banks Inc., and Norwest Corp. |
|  |  | 180-Not the least of which is how to finance structural and other changes that may be required. |
|  |  | 230-Most disconcerting to Sciacchitano and other bakers is the fact that the only real enforcement of the law regarding facility accessibility lies with the Department of Justice. |


| TEXTS | SAMPLES | FROWN: SCIENCE |
| :---: | :---: | :---: |
| POLITICS AND <br> ECONOMICS | J42 | 125-Central to the right thesis is the distinction between arguments of policy and arguments of principle. |
| POLITICS AND <br> ECONOMICS | J43 | 139-First are serious physical assaults and homicides committed against adult lesbians and gay males. |
|  |  | 149-Second are assaults and related harassments of lesbian and gay male adolescents by their peers. |
|  |  | 155-Far more common than either of the other forms of assault and harassment are the beatings of effeminate boys, both future homosexuals and heterosexuals (...) that occur during childhood. |
|  |  | 191-Most strongly opposing homosexuality are a small number of activists. |
|  |  | 196-Less opposed to homosexuality would be the larger number of opportunists. |
| $\begin{gathered} \hline \text { POLITICS AND } \\ \text { ECONOMICS } \\ \hline \end{gathered}$ | J44 | 125-Among the reasons for public dissatisfaction with the American legal system was contentious procedure. |
| POLITICS AND <br> ECONOMICS | J45 | 23-Neither is any set of partial reforms likely to solve the poverty problem. |
|  |  | 38-An urban political strategy is the most practical approach for attacking America's poverty problems. |
|  |  | 141-Most troublesome for our work at this juncture is a tendency in much contemporary discussion to use rhetoric that once trivializes systematic causes of poverty and magnifies the problems thought to derive from improper individual behavior. |
|  |  | 189-As would be the case, for example, if by providing good housing for the poor the City of Boston would attract impoverished migrants and therefore worsen its average housing conditions. |
| POLITICS AND <br> ECONOMICS | J47 | 124-Not only are there smaller numbers but the nature of the jobs makes workers vulnerable to displacement from automation, technological changes, and shifts to off-shore operations. |
| LAW | J49 | 136-Second is a larger upper class, or social elite, whose members often are professionals, corporate managers, leading scientists, and the like. |
|  |  | 148-Central to the values of the lower middle class is a desire to belong and be respectable. |
|  |  | 152-Fourth in the hierarchy of social class is the working class. |
|  |  | 160-Fifth in the hierarchy is the lower class. |
|  |  | 175-Complicating the issues of social class is the fact that in the United States there is a large overlap between lower-middle class, working-class, and lower-class membership and membership in minority groups. |
| LAW | J50 | 91-A merely well-informed person is the most useless bore on God's earth. |
|  |  | 182-Thinking is always contextual; so, too, is all thinking about ethical issues. |
| PHILOSOPHY | J52 | 135-Hence, concealed within Climacus's plagiarism lies a deeper level of unacknowledged borrowing. |
| PHILOSOPHY | J54 | 84-Even more remarkable was the fact that Nicias, of aristocratic stock, owned a thousand slaves, whom he leased out to the entrepreneurs running the state silver mines of Laurium. |


| TEXTS | SAMPLES | FROWN: SCIENCE |
| :---: | :---: | :---: |
|  |  | 42-In its place came a new uniform little distinguishable from the British pattern. |
|  |  | 69-Along with this income-tax increase came new surtaxes. |
| HISTORY | J56 | 143-Among Eire's citizenry who deplored the IRA's methods, so deep was the vein of antipathy for Britain that when two of the accused were hanged in Birmingham in February 1940, almost the entire country mourned them with flags dropping to half staff, theaters closed, and masses offered for the repose of the executed men's soul. |
|  |  | 144-More worrying, I fear, is the fact that most people will have terrible trouble just understanding what Condren is trying to argue. |
| HISTORY | J58 | 189-Not only was he one of the most passionate and bellicose rebels of his age, but he was also far from being the perfect Englishman. |
| LITERARY | J60 | 41-Abroad not only is paper \& printing cheaper, but assistance is rendered by the Governments. |
| CRITICISM |  | 177-An excellent demonstration of this was the effective support for the establishment of a national botanic garden at Kew. |
| LITERARY CRITICISM | J61 | 19-But even more troubling is the habit of aestheticizing feelings that play a central role in our moral lives. |
| LITERARY CRITICISM | J62 | 172-Among those under review were men suffering from neurasthenia and shell shock. |
| ART | J65 | 111-Among those who endorsed the appeal were Beatrice Webb, Mrs. Humphry Ward, Eliza Lynn Linton, Mrs. Matthew Arnold, and Mrs. Leslie Stephen; a supplementary list of two thousand names was added two months later. |
|  |  | 132-So begins her collapse into enslavement to forms. |
| ART | J66 | 29-A key connection was Frank O'Hara. |
| TECHNOLOGY ENGINEERING | J73 | 52-Of perhaps greater significance have been the questions of fabrication cost and operational cost and maintainability. |
| TECHNOLOGY ENGINEERING | J75 | 120-A common approach for adding fiber into cable television networks is the fiber backbone strategy. |
| TECHNOLOGY | J78 | 9-Between the PMT and the ST mounts was an optical path selector consisting of a stepper-motor driven shutter that alternately blocks the path of light coming from the sensor fiber or the "reference fiber". |
| ENGINEERING |  | 36-Between the monochromator output hole and the fibers was another shutter assembly acting as a wavelength selector that could block either one. |
| TECHNOLOGY ENGINEERING | J80 | 118-A scarcely less dramatic outcome of the magnetron was terrain-mapping radar. |


| TEXTS | SAMPLES | FROWN: MISCELLANEOUS |
| :---: | :---: | :---: |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H03 | 36-Also unacceptable is the FBI statistic indicating that rapes have increased four times as fast as the general crime rate during the past decade. |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H04 | 32-Following that list is a discussion of highways which the Task Force identified as needing improvement in order to provide access to all regions of the Commonwealth. |
|  |  | 102-A second project is the Cumberland Gap tunnel project just south of Pineville. |
|  |  | 103-Upon completion of this project will be a four-lane facility. |
|  |  | 174-Counties directly benefiting from this project are Wolfe, Magoffin, and Floyd. |
|  |  | 215-Counties receiving direct benefit from this corridor improvement are Carter, Elliott, Morgan, and Magoffin. |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H05 | 115-An example is the pledging of the receipts of a motor fuels tax to retire a bond used to build a highway. |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H07 | 174-Innovative was the key word for any of Metropolitan's programs during the fiscal year. |
| GOVERNMENT DOCUMENTS: REPORTS, DEPARTMENT PUBLICATIONS | H10 | 109-A recurring theme in discussing substance abuse treatment is the importance of well-trained and committed professionals to lead substance abuse programs and to provide direct care. |
|  |  | 205-A difficult problem the Early Childhood Development Committee had to confront was the reality that - short of intensive and unrealistically expensive (and often intrusive) screening techniques - many drug-exposed newborns will go undetected. |
| GOVERNMENT DOCUMENTS: ACTS, TREATIES | H13 | 68-Gone are the days when, if you had land, labor, and a little cash you could make a go at farming. |
| GOVERNMENT DOCUMENTS: ACTS, TREATIES | H14 | 14-Among these are the desire for sufficient food and water, adequate shelter, good health, long life, knowledge, and the capacity to provide materially for oneself and one's family through productive endeavor. |

215-Counties receiving direct benefit from this corridor improvement are Carter,
Elliott, Morgan, and Magoffin.
115-An example is the pledging of the receipts of a motor fuels tax to retire a bond used to build a highway.
FROWN: MISCELLANEOUS

| TEXTS | SAMPLES | FROWN: SCIENCE FICTION |
| :---: | :---: | :--- |
| NOVELS | M03 | 26-Of most immediate concern, however, are the diplomatic developments. |
| SHORT STORIES | M05 | 68-In her hand is an obsidian crown. |
|  |  | 131-Standing before me is a knight clad in armor similar to Ardinay's. |
| SHORT STORIES | M06 | 129-On its edge stood a squat, dirty little town. |


| TEXTS | SAMPLES | FROWN: ADVENTURE AND WESTERN |
| :---: | :---: | :---: |
| NOVELS | N04 | 68-In went the elder O'Brien with his son coming close behind. |
| NOVELS | N05 | 146-Dark was the worst time of all. |
| NOVELS | N06 | 100-Standing grim and alone a mile out on the flat was the hulking eyesore of the territorial prison. |
|  |  | 196-Across the room was a door leading outside. |
|  |  | 203-In the other half of the yard stood a mud wagon and, closer to the back door, a dust-covered Concord coach. |
| NOVELS | N08 | 197-Now was the time to follow the advice of the doctor with no name and give his sore leg a rest. $\mathbf{9 0}$-Here are the water samples and results as interpreted by my on-board instruments and computers. |
| NOVELS | N10 |  |
| NOVELS | N13 | 113-Up the southern face led a steep flight of steps. |
|  |  | 152-At the upper edge of this dead period comes a flood of Altomec pottery. |
| NOVELS | N15 | 159-On it rested the steaming plates of eggs, bacon, potatoes, chile stew, hot tortillas, and coffee. |
|  |  | 194-With them stood don Pedro, Isidro's grandfather, the old patriarch of the clan. |
| SHORT STORIES | N16 | 194-Between Cindy and her husband, Henry, at opposite ends of the table were Tim's parents, Toby and Alexandra, who had driven across the river from their house in the District; Toby and Cindy's mother, Eulalia, dutifully delivered from Oregon by Tim; and all the children. |
| SHORT STORIES | N21 | 62-On his right was the mountain. |
| SHORT STORIES | N22 | 36-Here is a pinch for all trouble you put me through. <br> 37-Here is a pinch for mussing your clothes. <br> 38 -Here is a good sharp pinch as a warning. <br> 41-Here is a special treat for you today. |
|  |  | 187-Somewhere deep inside him was buried a sorrow. |
| SHORT STORIES | N24 | 36-In the background of the painting is the stand of tress that played a major role in Lizzie's life. |
|  |  | 37-To the left of her looms a shadow of a man. |
|  |  | 135-So weakened was he that he could no longer work as a handler. |
|  |  | 173-Here was a curse on a man, if ever a curse was. |
| SHORT STORIES | N28 | 126-On the left side of the stage, in front of the false lake, was a stage for, as it said in the play's stage notes, "private theatricals". |


| TEXTS | SAMPLES | FROWN: MYSTERY AND DETECTIVE FICTION |
| :---: | :---: | :---: |
| NOVELS | L01 | 132-Over yonder is Tiger. |
|  |  | 185-Here are your capes. |
| NOVELS | L02 | 104-On the front page of the local news for December 26 was the little article I'd seen about the hit-and-run fatality of an elderly man. |
| NOVELS | L04 | 153-Here are your new schedules. |
|  |  | 201-On the other side of which were the field house, a smaller gym, the pool, and the football stadium. |
| NOVELS | L06 | 170-Underlying it was the scent of blood. |
| NOVELS | L08 | 37-After her own name were three cases. |
|  |  | 121-Under his white lab coat was an open-necked flannel shirt. |
| NOVELS | L12 | 92-Ahead of us was a loud radio. |
|  |  | 219-In the gutter by the curb, below the open door, was an automatic pistol. |
| NOVELS | L13 | 47-Here is my wife, Vita. |
| NOVELS | L14 | 98-Here is the newspaper item. |
| NOVELS | L17 | 97-A need for revenge might be the man's dominant emotion. |
| NOVELS | L19 | 72-Inside was a single sheet of paper that looked just like the others. |
| SHORT STORIES | L22 | 53-On her face was that combustible mix of sympathy and smoldering anger. |
| SHORT STORIES | L23 | 57-Strung along East Amarillo Boulevard are cheap motels, strip joints, bars and similar establishments. |
|  |  | 190-On the right shoulder was a tattoo that could help in making the identification. |
| SHORT STORIES | L24 | 99-About the only public courts where you can find a game every Saturday and Sunday are the ones at Aquatic Park. |
|  |  | 117-Under the roof are wooden benches. |



| TEXTS | SAMPLES | FROWN: GENERAL FICTION |
| :---: | :---: | :---: |
| NOVELS | K03 | 168-On it is a brown wooden bowl, flat, low like a tray, full of spilling with oranges. |
| NOVELS | K05 | 45-Arrayed on the tray were plate and napkin, a glass of orange juice, two parts of butter on a saucer, and a vase. |
|  |  | 171-From the wrappings of a legal secretary rose a vaguely gourd-shaped, jowled face. |
| NOVELS | K06 | 52-Beneath a window whose blinds had been tightly shut was a heap of old clothes or rags. |
|  |  | 54-On it were perhaps a dozen boxes of various sizes. |
|  |  | 55-Close to the desk was a narrow bed, its rumpled sheets strewn with more books. |
| NOVELS | K13 | 55-Behind it was a picture of a nude man and woman. |
|  |  | 56-Next to the fireplace was an ice-cream parlor table with a black and rose floral tablecloth; oak chairs with wrought-iron backs, and more unpacked crates and boxes stacked in a corner. |
| NOVELS | K16 | 33-Third was the steel eight-foot fence at the edge of the paved playground of the school they had all attended |
| NOVELS | K17 | 21-Looming above them were the hulls of two Altan stock boats. |
|  |  | 59-Beyond the crates, on a buffed concrete floor, stood two armoured personnel carriers of the National Guard. |
|  |  | 61-Near them was a drinking fountain. |
|  |  | 65-Extending from the boxes along the floor was a woman's foot with a tanned ankle and sneaker. |
|  |  | 178-Beside it stood a graying, flaxen-haired man with the build of an oak stump and eyes the color of wild grapes. |
| NOVELS | K18 | 102-Then into his viewfinder came a farmer driving a team of light brown Belgians. |
| SHORTSTORIES | K23 | 4-Out of somewhere materialized Reuben Kazarsky. |
|  |  | 43-Facing the mirror hung a picture of a little boy urinating in an arc while a little girl looked on admiringly. |
| $\begin{aligned} & \text { SHORT } \\ & \text { STORIES } \end{aligned}$ | K24 | 84-Here is your cash. |
|  |  | 100-Down came the rabbi's eyelid. |
|  |  | 177-On yellow folding chairs scattered around the room sat a dozen men holding worn prayer books. |
| SHORT STORIES | K25 | 83-In the center, seated upon the largest and most sumptuous silken pillow of them all, was the Sultan himself. |
|  |  | 86-Behind him stood his fierce, moustachioed guards. |
|  |  | 87-Before him veiled and scented dancing girls. |
|  |  | 122-Hustled in between two armor-laden guardsmen was a slight bearded man with intelligent eyes. |
|  |  | 162-No longer are you merely Joseph the Jewish doctor. |
| $\begin{gathered} \hline \text { SHORT } \\ \text { STORIES } \end{gathered}$ | K28 | 141- In the evening water below them, still as a pond, lay the blackened timbers of an old wharf. |
| SHORTSTORIES | K29 | 6-Far below through the mists of the cloud were the starry lights of a city. |
|  |  | 43-Written on the side of the truck with no headlights were the words "Caution! Highly Inflammable gasses!" |

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SAMPLES
FACTMT96
irst was faculty and staff salaries.
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CSPAE: FACULTY MEETINGS

| SAMPLES | CSPAE: FACULTY MEETINGS |
| :--- | :--- |
| FACTMT96 | But as was the case with Jefferson, Dawson answered the call to service and was a distinguished Dean of the College during one of <br> its most important and turbulent periods. |
| FACTMT96 | First was faculty and staff salaries. |
| FACTMT96 | Next was graduate student health insurance if they didn't get funded in the general budget. |
| FACTMT96 | Embedded in there are some of the things I was concerned about. |
| FACTMT96 | In the next piece will be something about retirement incentives. |
| FACTMT96 | A possibility to support cohort education, and that is keeping small groups of students together through similar experiences, <br> pairing them for particular courses. |
| FACTMT96 | A final possibility is the creation of a series of mini-amphitheaters as a motif around campus. |
| FACTMT96 | A third possibility is the idea of a freshman campus. |
| FACTMT96 | Here comes another burdensome administrative demand. |
| FACTMT96 | There is the conflict. |
| FACTMT96 | Neither struggle was easy. Nor was the battle against depression. |
| FACTMT97 | An even more impressive figure to me is the 100 people that are the largest donors to the Educational Foundation. |
| FACTMT97 | A perhaps longer answer to the question is maybe the invitation to speculate on what's in the mind of the person in the media. |
| FACTMT97 | A third was the residential component. |
| FACTMT97 | A second component was summer reading. |
| FACTMT97 | Fourth was an evaluation perspective of the whole first year experience. |
| FACTMT97 | For Chapel Hill here are some of the rankings. |


CSPAE: CONFERENCES

| At the end of the doghouse lock, at the very last problem in that lock, is an extended open-ended pass. |
| :--- |
| A second thing that plays a heavier role in the rubric is the clarity. |
| Here is a plan that even has two in it. |
| Among those tools is the ruler. |
| An important piece here would be the achievement levels. |
| Here is a case that abstract, concrete, easy, hard content things really have to be very clear. |
| Here is the task that I think you firs teed to attend to. |
| So that we cannot only say here is the item, but here is also how we would suggest scoring that item for students. |


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| Here is the task that I think you first need to attend to. |
| So that we cannot only say here is the item, but here is also how we would suggest scoring that item for students. |


| At the end of the doghouse lock, at the very last problem in that lock, is an extended open-ended pass. |
| :--- |
| A second thing that plays a heavier role in the rubric is the clarity. |
| Here is a plan that even has two in it. |
| Among those tools is the ruler. |
| An important piece here would be the achievement levels. |
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Here is a menu of things that happen.
Here is a menu that you can check against.
Here are some things that you can do in end service
Here are some examples for meaning for $K-2$ students in this particular section of the standards.
Here are the benchmarks for K-4. K-2 students will be doing this.
Here are the kind of relevant points that have been brought to my attention about it.
Under $F$ is actually a two-page note from Ed Silver.
After that are some, a couple of extended response text from balanced assessment that had student work with them.
With the little bitty parentheses after it is the standard error for that percent.
In table 1 on page 14 of the framework is a distribution of items by grade and content strand.
Here is the generalization.
A second thing is the whole question about retesting.
Here is some other items that could have been on it because they are part of it.
Here are the five things my kids need to know in algebra and that's what I'm going to teach all year.
I'm saying, okay, here is a test.
Here is something every kid ought to be able to do.
Here is something that if you really are thinking about math, you ought to be able to do and understand it.
Here is a really good one.
Here is an item because of the combination of factors is relatively similar.
Here are items that come, you know, that are appropriately cited, and have stood some test of time.
Here are theoretical notions about.

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| TEXTS | SAMPLES | ICE: PUBLIC DIALOGUES |
| :---: | :---: | :---: |
| CLASSROOM LESSONS | S1B-003 | 7-Here is a problem |
| CLASSROOM LESSONS | S1B-005 | 47-Yet along comes Standard Oil saying. |
| CLASSROOM LESSONS | S1B-011 | 28-Here is a private body. |
| CLASSROOM LESSONS | S1B-013 | 112-Here is your first bar. |
|  |  | 114-Here is your second bar. |
|  |  | 141-Not only is this function brilliant. |
| CLASSROOM LESSONS | S1B-014 | 26-Behind her is the notorious Colonel Charteris who was again supposed to have used prostitutes to procure innocent young virgins for him to seduce and then turn into prostitutes. |
| BROADCAST DISCUSSIONS | S1B-027 | 54-Nor is it legitimate for us. |
| BROADCAST DISCUSSIONS | S1B-032 | 88-On the other side of the park was Arnold Bax in the Academy. |
|  |  | 158-A most talented composer who wrote very little and suffered during the fourteen eighteen war was George Butterworth. |
| BROADCAST DISCUSSIONS | S1B-038 | 86-From the bottom appears a motor car. |
| BROADCAST INTERVIEWS | S1B-042 | 105- Dull is the word. |
| PARLIAMENTARY DEBATES | S1B-052 | 32-Against the present economic background are the increases in planned public expenditure he has announced entirely appropriate. |
| PARLIAMENTARY DEBATES | S1B-058 | 68-A particularly striking feature of the report is the growth in coverage in manual operations. |
| PARLIAMENTARY DEBATES | S1B-060 | 2-Equally important are the profoundly moral arguments over the origin of life. |
|  |  | 21-Nor is there anything illogical in combining legislation on abortion and embryonic research |
| LEGAL CROSS-EXAMINATIONS | S1B-062 | 121-A hundred pound fine is the maximum. |
|  |  | 124-Bearing in mind three per cent is the requirement or obligation what sort of percentage in your experience do local authorities have in their workforce. |


| TEXTS | SAMPLES | ICE: SCRIPTED MONOLOGUES |
| :---: | :---: | :---: |
| BROADCAST NEWS | S2B-002 | 52-Currently within the E R M the lira is the median currency neither strong nor weak against the others. |
| BROADCAST NEWS | S2B-004 | 76-In amongst the hundreds of civilian vehicles tanks and trucks lying wrecked on the road are many tons of live ammunition. |
|  |  | 92-Making their way south in the opposite direction are groups of Kuwaitis and Egyptians who had been transported to Basra by the Iraqis. |
| BROADCAST NEWS | S2B-005 | 29-Among their most recent targets had been Iraqi storage tanks surface to air missiles and two bridges one of which had been destroyed and the other badly damaged. |
|  |  | 39-With his assessment of this and the day's other events here is our defence correspondent Mark Laity. |
| BROADCAST NEWS | S2B-006 | 10-Here is our Washington correspondent David MacNeill. |
|  |  | 86-In the radio car is Sir Geoffrey Johnson-Smith the M P for Wealdon and Vice Chairman of the Nineteen Twenty-Two Committee. |
| BROADCAST NEWS | S2B-007 | 15-Here is our chief political correspondent John Harrison. |
|  |  | 39-Here is our media correspondent Torin Douglas. |
|  |  | 52-Here is our correspondent Mark Tully. |
|  |  | 106-In our studio now at the C B I conference in Glasgow is our economics editor Dominic Harrod. |
| BROADCAST NEWS | S2B-008 | 48-Here is our Washington correspondent Jeremy Harris. |
|  |  | 99-A growling of aircraft in the distance was the only hint that the allied attack had started. |
| BROADCAST NEWS | S2B-009 | 25-Here is our Jerusalem correspondent Alex Brodie. |
| BROADCAST NEWS | S2B-010 | 4-Once the deadline of midnight New York time has passed is war the only option. |
| BROADCAST NEWS | S2B-012 | 63-Here is a message from the Foreign and Commonwealth Office in London. |
|  |  | 121-Listening with us here in the studio is our diplomatic correspondent Paul Reynolds. |
| BROADCAST NEWS | S2B-014 | 58-So far here is our defence correspondent Mark Laity in Riyadh. |
|  |  | 92-Here is our Moscow correspondent Bridget Kendall. |
| BROADCAST NEWS | S2B-015 | 62-Here is the B B C's correspondent Tim Hewell. |
|  |  | 100-For the latest information here's Alex Brodie in Jerusalem. |
| BROADCAST NEWS | S2B-016 | 26-Here is a quick look at London's weather for today. |
|  |  | 111-Joining Costner is the best in the best actor category is Britain's Jeremy Irons for his part in Reversal of Fortune. |


| TEXTS | SAMPLES | ICE: SCRIPTED MONOLOGUES |
| :---: | :---: | :---: |
| BROADCAST NEWS | S2B-017 | 15-From Washington here is our correspondent David MacNeill. |
|  |  | 32-Among those she spoke to were Lord Whitelaw the Party Chairman Mr Kenneth Baker and the Chief Whip Mr Timothy Renton. |
| BROADCAST NEWS | S2B-019 | 37-Among them are the only foreign women still held in Iraq against their will. |
|  |  | 50-At the centre of the enquiries has been an alleged V A T fraud involving gaming machines at pubs clubs and cafes throughout the UK. |
| BROADCAST NEWS | S2B-020 | 14-Soon after eleven came the news that two senior ministers Douglas Hurd and John Major had joined the race. |
| BROADCAST TALKS | S2B-021 | 116-With the modern German state comes the modern tax collector. |
| BROADCAST TALKS | S2B-022 | 3-Further upriver is desolation. |
| BROADCAST TALKS | S2B-024 | 21-Past the queues of tourists outside Lenin's tomb strides a British explorer with a string of military adventures behind him most of them aimed at the defeat of Communism. |
|  |  | 105-Such was the pervasive sense of hunger that Berger Ausland's diary became filled with crazy recipes as he fantasized about pork roasts spaghetti. |
|  |  | 8-Round the corner were The Lilacs The Laurels The Firs The Laburnums and Beech View. |
| BROADCAST TALKS | S2B-026 | 30-At the centre of Miss Crompton's universe stands William himself inspired in part perhaps by Booth Tarkington's Penrod in part by Miss Crompton's brother Jack and later her nephew Tommy and in part by her own understanding of the child mentality. |
| BROADCAST TALKS | S2B-027 | 61-In the past bridges were sacred places where magic rites were enacted at annual festivals. |
|  |  | 111-Inside the medieval church is a sacred statue of the Marys sailing in a little wooden boat |
|  |  | 126-On the walls of the church are some delightful votive paintings showing miracles attributed to the two saints. |
| BROADCAST TALKS | S2B-028 | 46-First came the torture the scourging and mocking the forced carrying of one's own heavy cross or maybe a cross-piece for which Jesus was evidently too weak to complete the course. |
|  |  | 47-Then came the nailing to the cross. |
| BROADCAST TALKS | S2B-033 | 109-Here is a clip from another sequel Highlander Two featuring as before Sean Connery. |
| BROADCAST TALKS | S2B-035 | 86-Here for example is Helmut Schmidt's famous quote of nineteen seventy-five. |
|  |  | 108-Here is a good Socialist Professor Macrae writing ten years ago. |
| BROADCAST TALKS | S2B-038 | 36-Acting on the side of restraint is an enzyme. |
|  |  | 63-Shortly after that programme was broadcast. |
| BROADCAST TALKS | S2B-039 | 82-Gone are the days when any ruler in Francophone Africa could summon French troops to put down local unrest as more than one has recently discovered. |


| TEXTS | SAMPLES | ICE: UNSCRIPTED MONOLOGUES |
| :---: | :---: | :---: |
| BROADCAST TALKS | S2B-040 | 54-Now not only were the queues for basic food just as long but when you finally reached the front of the line the prices were two three six times higher. |
| NON-BROADCAST TALKS | S2B-042 | 16-Hebrew is a Semitic language as are Aramaic Arabic and several Ethiopic languages. |
| NON-BROADCAST TALKS | S2B-046 | Implicit in the court's reasoning is the assumption that ownership is absolute or it's not ownership. |
| NON-BROADCAST TALKS | S2B-048 | 20-The common heritage of science is another so is the aspiration to add to it so is the distribution or the misdistribution of food and medicine so is the world's endowment of trees and of fuel so are all the arts and technologies of communication. |
| NON-BROADCAST TALKS | S2B-049 | 30-Of equal if not perhaps of greater importance for the development of the theory was Henderson's Prosodies in Siamese nineteen forty nine which was published by as you see in the following year. |
| UNSCRIPTED SPEECH | S2A-021 | 113-A third approach that I think is worrying is the highly polemical one. |
| UNSCRIPTED SPEECH | S2A-022 | 27-Here is a rather splendid reconstructions of some of the ancient Celts from north of the Alps. |
|  |  | 42-Here is a reconstruction painting. |
| UNSCRIPTED SPEECH | S2A-023 | 48-As it happened sitting well below the salt at the meeting was somebody from the late lamented Central Policy Review staff a former colleague of mine |
| UNSCRIPTED SPEECH | S2A-024 | 53-Here is just a little sample of the way that Ionic may well have developed. |
| UNSCRIPTED SPEECH | S2A-025 | 44-Compensating those is the additional displacement or deformation in the structure. |
|  |  | 68-Primarily of interest was the effect on the San Francisco bay area up here which was between thirty and sixty miles away. |
|  |  | 93-Here was the Oakland freeway which collapsed. |
| UNSCRIPTED SPEECH | S2A-026 | 61-Among Hekekyan's papers which were all collected in the or mostly collected in the British Library in London are a number of volumes which show fairly lavish pen and colour-wash maps and views of the work that was done. |
|  |  | 63-Here is the extent of the site itself, with the obelisk. |
|  |  | 67-Here again is the view of the obelisk rather more closer up. |
| UNSCRIPTED SPEECH | S2A-028 | 8-Here is just a few of the areas where collisions of electrons play an important role. |
|  |  | 42-Here are such the few results I have taken in my work. |
| UNSCRIPTED SPEECH | S2A-034 | 94-Most distressing of all were the experiences of hearing or being made to watch other people being tortured. |
| UNSCRIPTED SPEECH | S2A-035 | 19-Also present in this <unclear-word> along with the human G S T pi gene are the oncogenes <unclear-word> and <unclear-word> and also other leucites such as B C L one and M E M one. |

ICE: UNSCRIPTED MONOLOGUES
35-Then comes the third section the third of the six in Chapter Two Verses Ten to Sixteen where Malachi is complaining about what seem to be two evils.
64-For neither of them however was the real life that they actually led to be ignored because both delight in their way of life in their suburbs.
110-Also very much in parallel was the energy and hope that was given out to young architects not just in this country but all over the world.
69-Here is the compound.
69-Here is the compound.
56-So now is the equator.
54-Here is a nice one.
66-Here is a thing from Scientific American which clearly shows the path of the particle going in this
98-Here is the cell body and on the front edge here you have a mass of these very small hair-like organelles called cilia.
91-Below are sketched these ostraka from which the miniature drawing in exact proportions is
transferred to the larger surface.
182-Here is another right turn.
197-Here are some more hazards.
227-Here is some general advice on how to use roundabouts.
148-Not only is it more stylish but it is more elegant too.
151-Now for nineteen ninety-one comes another big change.
70-Here is several cycles over time.
8-Above him is the Byzantine emperor whose face has been somewhat rubbed but one sees a little bit
29-In front of it in the area just opposite just somewhere down here are the excavated remains of the baptistery that we went with it in its first incarnation so which also would have a sixth or seventh century date.
SAMPLES
S2A-036

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## RESUMEN EN CASTELLANO

De acuerdo con la normativa establecida por el Vicerrectorado de Oferta Docente y Espacio Europeo de Educación Superior, que regula la elaboración y presentación de Tesis Doctorales de la Universidad de Santiago de Compostela, a continuación se ofrece un resumen de los principales objetivos de este estudio, así como de la metodología empleada y las conclusiones obtenidas a lo largo de los diversos capítulos.

La inversión total de sujeto y verbo, i.e. En la esquina de la habitación está Pedro, ha sido un fenómeno oracional ampliamente estudiado en la última década como lo demuestran estudios tales como Bresnan y Kanerva (1992), Schachter (1992), Bresnan (1994), Birner (1996), Dorgeloh (1997), Chen (2003), Prado-Alonso (2004), o Kreyer (2004). Siguiendo dicha tendencia, esta Tesis Doctoral presenta un análisis funcional de la inversión en inglés escrito y oral contemporáneo, con el objetivo de analizar y clarificar determinados aspectos sobre el uso de la construcción que no han sido tratados en los numerosos estudios previos sobre el tema.

La investigación, basada en el análisis de corpora, se estructura en 4 capítulos cuyas conclusiones y desarrollo se resumen a continuación. El capítulo 1 ofrece las bases teóricas sobre las que versa el estudio. La sección 1.1 define el concepto de inversión total que ha recibido nomenclaturas tan diversas como inversión-sobre-verbo (Green, 1985), inversión Tipo-A (Stein, 1995), inversión sujeto-verbo (Biber et al., 1999), o inversión dependiente del sujeto (Huddleston y Pullum, 2002), entre otras. En esta investigación, la construcción se define como una estructura sintáctica en la que "el sujeto se encuentra en una situación pospuesta mientras que otro elemento que depende del verbo se sitúa en una posición pospuesta" (Huddleston y Pullum 2002: 1385). Se distingue, por tanto, de la inversión de sujeto y auxiliar, cuyo concepto hace referencia a aquellas construcciones sintácticas en las
que "el sujeto es precedido por un operador en vez de por el verbo principal de la cláusula" (Biber et al. 1999: 911).

La sección 1.2 realiza una descripción de diferentes tipos de inversión que, por razones metodológicas, se han excluido del análisis. Ello incluye ejemplos de inversión en los que el verbo es el primer constituyente sintáctico de la cláusula, dado que el análisis se restringe sólo a aquellos tipos de inversión en los que el verbo es el segundo constituyente y va precedido por otro constituyente que no es el sujeto. Otras inversiones que han sido excluidas de la investigación son las inversiones de sujeto y auxiliar, las inversiones en expresiones estereotípicas, en cláusulas condicionales, en cláusulas interrogativas y exclamativas, en cláusulas appended, y en citas ${ }^{33}$.

La sección 1.3 realiza una clasificación de inversiones totales basada en criterios formales. En función de la categoría sintáctica del primer constituyente de cláusula se distinguen seis tipos de inversión en el estudio: inversión preposicional, inversión adverbial, inversión adjetiva, inversión verbal, inversión nominal e inversión subordinada. En la sección 1.4, estos seis tipos de inversión se comparan brevemente con diversas construcciones, i.e. estructuras existenciales con there, estructuras con dislocación a la izquierda, estructuras con topicalización y estructuras ecuativas, que exhiben características sintácticas y pragmáticas similares a la inversión total, pero también diferencias importantes como para no ser consideradas parte de la investigación ${ }^{34}$.

[^29]El capítulo 2 proporciona al lector una revisión de la bibliografía especializada sobre la inversión total, y establece los motivos por los que se ha llevado acabo la presente Tesis Doctoral. En la revisión bibliográfica se demuestra que la construcción es una estructura compleja investigada con detalle en los últimos años desde un punto de vista sintáctico, pragmático y semántico, tanto en el marco la lingüística generativa como en el marco de la lingüística funcional. Sin embargo, también se pone de manifiesto que todavía se necesitan más análisis sobre el tema para clarificar determinadas controversias y analizar áreas que han sido completamente desatendidas.

La sección 2.1 demuestra, que desde una perspectiva sintáctica, la inversión total ha sido mayoritariamente analizada en el marco de la lingüística generativa que, no obstante, ha desatendido el estudio de ciertos tipos de inversión total, en particular la inversión nominal, la inversión adjetiva, la inversión verbal, y la inversión subordinada. Los expertos en lingüística generativa han concentrado su atención en el estudio de la inversión total como fenómeno que sólo puede darse en cláusulas principales. En su opinión, la inversión total no puede ocurrir en cláusulas subordinadas al ser un instrumento de root-trasnformation, es decir, un fenómeno exclusivo de cláusulas superodinadas (cf. Coopmans 1989). Sin embargo, hoy en día, se ha demostrado que, aunque la inversión tiene lugar mayoritariamente en cláusulas superordinadas, también puede ocurrir en cláusulas subordinadas. Otro aspecto estudiado en la gramática generativa es la categoría sintáctica del primer constituyente de cláusula en la inversión total. Algunos autores consideran que el constituyente inicial de cláusula es el sujeto (cf. Bresnan y Kanerva 1992a, 1992b) mientras que otros afirman que es el constituyente posverbal el que realiza dicha función (cf. Schachter 1992).

La sección 2.2 muestra que, desde una perspectiva funcional, la inversión total ha sido mayoritariamente analizada a través de estudios de corpora. Dicho análisis se ha realizado
desde dos enfoques principales: el enfoque textual o discursivo (cf. 2.2.1), y el enfoque de estructuración de la información (cf. 2.2.2). El enfoque textual o discursivo ha examinado la construcción como instrumento cuya función es la de focalizar y presentar información nueva en el discurso. En ese sentido, Rochemont (1986) afirma que, desde un punto de vista sintáctico y pragmático, el constituyente que ocupa una posición posverbal en la inversión se identifica como el foco de la información y constituye información nueva en el discurso. Esta función presentativa de la inversión total, también conocida como "la función de proporcionar intensidad", es también aceptada por otros académicos tales como Bolinger (1977), Dubrig (1988), y Green (1980, 1982). Sin embargo, Green analiza el fenómeno de la inversión en un sentido más amplio y también trata en sus estudios la inversión de sujeto y auxiliar y la inversión en citas. Sus resultados, que están basados en un corpus demasiado heterogéneo, muestran que la inversión puede utilizarse para diversas funciones, que van desde facilitar la fluidez del discurso hasta la creación de una variedad de efectos retóricos (cf. Green 1980).

Los estudios de la inversión total desde un enfoque de estructuración de la información tienen como obras destacadas las de Birner (1992, 1994, 1995, 1996, 1998), aunque también existen estudios previos sobre el tema tales como los de Hartvigson y Jakobsen (1974) y Penhallurick (1984). El enfoque considera que la inversión total es un instrumento que permite mantener el principio de acumulación de información nueva en posición final de cláusula (end-focus en inglés), así como que la información conocida preceda a la información nueva. Los estudios de Birner se basan en un corpus de 1778 ejemplos de inversión que, compilado por la propia autora, no es apropiado para hacer conclusiones estadísticas, y sólo permite realizar ciertas descripciones en el uso de la construcción. Birner (1992) postula que la inversión total sirve una función de estructuración de la información en el discurso y une información que no es conocida con el discurso previo.

Esto se produce porque el constituyente inicial de la inversión constituye información que es conocida en el discurso previo, mientras que la información nueva aparece en posición pospuesta. La investigación de Birner se basa en la distinción entre información conocida e información nueva, que está tomada del análisis de Prince (1981). En él se distingue una escala de familiaridad discursiva que se estratifica en diferentes niveles informativos: información evocada, información no-usada, información inferible, información anclada e información nueva. Esta escala informativa permite a $\operatorname{Birner}(1994,1996)$ afirmar que la inversión total sólo es aceptable en el discurso cuando el constituyente preverbal contiene información que no es más nueva que la información introducida en el constituyente posverbal.

La sección 2.3 se centra en la revisión de Dorgeloh (1997) que, desde un enfoque textual o discursivo, es el análisis de la inversión más completo realizado hasta la fecha. Dorgeloh analiza la inversión total y la inversión de sujeto y auxiliar en textos escritos del inglés británico y americano contemporáneo. En particular, analiza diversas categorías textuales que contienen textos de no-ficción: reportajes periodísticos, reseñas, editoriales, y textos científicos. El análisis de la frecuencia de la inversión en inglés británico y americano demuestra que la construcción es igual de común en ambos dialectos. Sin embargo, el análisis de la distribución de la construcción en las diferentes categorías textuales sugiere que la construcción es más común en aquellas categorías que son más subjetivas desde un punto de vista discursivo. Con estos resultados, Dorgeloh afirma que la inversión transmite un significado subjetivo adicional, en particular la expresión de un punto de vista y el manejo del foco informativo por parte del receptor, dado que los textos que son más subjetivos en su corpus contienen un mayor número de inversiones. No obstante, como se demuestra en esta Tesis Doctoral, considerar la inversión total como un instrumento gramatical que expresa
subjetividad da lugar a una serie de problemas. Si la inversión transmite un significado subjetivo porque "es percibida por el receptor como una elección que depende del receptor al ordenar los diferentes elementos en la cláusula" (Dorgeloh 1997: 5), entonces la noción de subjetividad se puede aplicar a todas las allosenteces en inglés, y resulta demasiado amplia y difusa como para ser un elemento diferenciador de estructuras que contengan un orden de palabras marcado ${ }^{35}$.

La sección 2.4 revisa el trabajo doctoral de Kreyer (2004), el cual analiza la inversión total en textos académicos y de textos ficción del inglés contemporáneo desde un enfoque textual y de estructuración de la información. De acuerdo con los datos obtenidos por Kreyer, la construcción es más frecuente en textos de no-ficción pero, como ya se ha mencionado anteriormente, otros autores obtienen resultados en los que la inversión total es más frecuente en textos de no-ficción. Kreyer afirma que el uso de la inversión total en el discurso se rige por tres factores principales: la complejidad sintáctica, el estado informativo, y el emisor como escritor creativo. En el estudio, se demuestra que la mayor parte de las inversiones totales contienen un constituyente posverbal que, desde un punto de vista sintáctico, es más pesado que el constituyente preverbal. También se afirma que esta máxima de complejidad sintáctica va normalmente pareja a un estado informativo en el que el constituyente pospuesto transmite la información conocida. En consonancia con estos dos factores, desde el punto de vista de Kreyer, la inversión puede ser utilizada de forma deliberada por el emisor para expresar determinados efectos tales como la estructuración de la información, es decir, la introducción de un tópico, el cambio de un tópico, etc.

[^30]La sección 2.5 gira en torno a la revisión de Chen (2003), que constituye el análisis más detallado de la inversión total en el campo de la lingüística cognitiva. En dicho análisis, la inversión total se analiza en un corpus compilado por el propio autor, y se trata como un ejemplo del modelo cognitivo Ground-before-Figure (el contexto-antes que-la figura). Este modelo, basado en la distinción contexto/figura de la psicología Gestalt, postula que desde una perspectiva cognitiva es en ocasiones más eficaz presentar primero el contexto en el que se va a enmarcar una figura. Ello se puede realizar mediante el uso de la inversión total que, en el estudio de Chen, se trata como una categoría radial con un prototipo y extensiones del prototipo: la inversión $L O C B E$, la inversión DIRECCIONAL VM, y la inversión NSPAT BE. La inversión LOC BE (constituyente locativo + verbo copulativo be + sujeto), que en los resultados de Chen ocurre con mayor frecuencia en descripciones y narraciones, es considerada el prototipo. El segundo tipo de inversión, que se extiende del prototipo y ocurre con mayor frecuencia en narraciones, es la inversión DIRECCIONAL VM (constituyente direccional + verbo de movimiento + sujeto). Por último, otra extensión del prototipo, que de acuerdo a los datos de Chen se restringe a exposiciones, es la inversión NSPAT BE (constituyente no-locativo + verbo copulativo be + sujeto).

La revisión de la bibliografía especializada sobre la inversión total pone de manifiesto que, aunque la construcción ha atraído, y continúa atrayendo, el interés de investigaciones formales y funcionales, todavía existen determinados aspectos que necesitan ser clarificados o han sido completamente desatendidos en las investigaciones sobre el tema. En primer lugar, a pesar de la gran cantidad de estudios publicados, todavía no existe un consenso en cuanto a la distribución de la inversión total en textos de ficción y de no-ficción. Obras tales como Green (1982), Denison (1998) o Biber et al. (1999) consideran que el fenómeno es más frecuente en textos de ficción, sin embargo otros estudios (cf. Kreyer, 2004) postulan lo contrario. El
primer objetivo de esta investigación es clarificar esta falta de acuerdo que también es patente en los argumentos utilizados para sustentar dichas afirmaciones. Por ejemplo, mientras Kreyer (2004: 173) atribuye la alta proporción de inversiones totales en los textos de prosa académica al hecho de que dichos textos son complejos desde una perspectiva estructural, Dorgeloh (1997: 162) utiliza el mismo argumento para explicar la baja proporción de inversiones totales en los textos de prosa académica de su corpus. En esta investigación se demuestra que los textos de ficción y no-ficción en inglés escrito contemporáneo no difieren en gran medida en la distribución de la construcción, sino más bien en los diferentes tipos de inversión que utilizan y en las diferentes funciones que esas inversiones realizan en ambos géneros.

Además de la falta de consenso en cuanto a su distribución, las investigaciones previas sobre la inversión total utilizan corpora que contienen limitaciones de diversa índole. Chen (2003), por ejemplo, analiza la inversión total en un corpus, que el mismo compila, y adscribe todos sus textos a tres tipos de discurso, i.e. descripción, narración y exposición, cuyos limites llegan a solaparse en numerosas ocasiones (cf. 2.5). Asimismo, Dorgeloh (1997) examina la inversión total en diversas categorías textuales de no-ficción, con un alto contenido informativo (cf. Biber 1988: 128), de modo que sus resultados no pueden extrapolarse a otras categorías textuales. Por último, Kreyer (2004) simplemente distingue entre textos de prosa académica y textos de ficción en su corpus de inglés británico. Sin embargo, como afirma Biber (1988: 191), "existen patrones sistemáticos de variación en las grandes categorías textuales de un corpus". Se necesita, por tanto, un estudio más detallado de la inversión total que examine dichos patrones de variación, dado que sólo en ese caso se puede conseguir un análisis completo del uso de la construcción en los diferentes géneros y categorías textuales.

Otro aspecto analizado en el estudio es la distribución y el uso de la inversión total en la lengua oral. Sorprendentemente, el análisis de la construcción en este modo de
comunicación no ha recibido la atención que se merece, dado que la mayor parte de los estudios sobre el tema consideran que la inversión total apenas tiene lugar en la lengua oral y, consecuentemente, restringen sus análisis a la lengua escrita. Por ejemplo, Birner (1996) o Dorgeloh (1997) afirman, pero no prueban, que la construcción ocurre mayoritariamente en la lengua escrita. De igual modo, Chen (2003) señala la dificultad de encontrar inversiones en la lengua oral y sólo hace algunas reseñas sobre la entonación y el acento en 30 inversiones de su corpus. Kreyer (2004) también señala que la inversión total es un fenómeno más característico de la lengua escrita, afirmación que comparten Biber et al. (1999: 926) que sostienen que "la conversación se produce de manera espontánea y deja menos espacio para planear o variar el uso y las estructuras de la lengua". Estas afirmaciones coinciden con las de Green (1982: 123), quien considera que el lenguaje hablado apenas contiene inversiones totales y no es una buena fuente para su estudio. A pesar de todas estas suposiciones, el estudio exhaustivo de la inversión total que se realiza en esta investigación demuestra que la construcción también es frecuente en la lengua oral, y que los textos de inglés hablado y de inglés escrito no se diferencian mucho en el número de inversiones, sino más bien en los diferentes tipos de inversión de los que hacen uso y en las funciones que la construcción desempeña en ambos géneros.

El capítulo 3 ofrece una descripción de los corpora que se han utilizado en la investigación, de las técnicas de compilación adoptadas y de la metodología de búsqueda que se ha aplicado. Los corpora que se han utilizado para analizar el uso y la distribución de la inversión en inglés escrito y oral contemporáneo han sido: el Freiburg-Lancaster-OsloBergen Corpus of British English (FLOB; fecha de compilación: 1991), el Freiburg-Brown Corpus of American English (FROWN; fecha de compilación: 1992), el International Corpus of English: the British Component (ICE-GB; fecha de compilación: 1990-1993), y el Corpus
of Spoken Professional American English (CSPAE; fecha de compilación: 1994-1998). El tamaño global de los corpora analizados es de 1.804 .000 palabras. El corpus de inglés escrito consta de 1.084.000 distribuidas en categorías textuales de ficción (Ciencia ficción, Western, Misterio y ficción detectivesca, Romance, y Ficción general) y categorías textuales de noficción (Ciencia, Reportajes periodísticos, y Miscelánea, que incluye documentos oficiales). El corpus oral contiene 720.000 palabras e incluye Monólogos y Diálogos de discursos formales, así como textos tomados de Conferencias en la Casa Blanca y Reuniones universitarias en los EEUU. Los Monólogos contienen textos relacionados con Entrevistas televisivas, Retransmisiones periodísticas, Presentaciones legislativas, y Demostraciones. Los Diálogos contienen textos relacionados con la Docencia en las aulas, Entrevistas televisivas, Debates parlamentarios y Transacciones económicas. El análisis de los corpora se ha realizado de manera manual, a través de su detenida lectura, así como con la utilización del programa informático ICECUP versión 3.0 , que ha sido útil en la detección de los ejemplos de inversión en el International Corpus of English: the British Component (ICEGB).

El capítulo 4 presenta el análisis de la distribución y el uso de la inversión total en los corpora escritos y orales. Como punto de partida (cf. 4.1), los diferentes tipos de inversión, i.e. inversión preposicional, inversión adverbial, inversión adjetiva, inversión verbal, inversión nominal e inversión subordinada, se subclasifican en dos grandes grupos de inversión: inversiones totales no-obligatorias e inversiones totales obligatorias. Las inversiones totales obligatorias son aquellas construcciones en las que la inversión es obligatoriamente provocada por el constituyente inicial, dado que la construcción no-invertida transmite un significado diferente o no es gramatical. En los datos obtenidos en este estudio, ello incluye: 1) inversiones adverbiales desencadenadas por adverbios deícticos del tipo here,
now, there, y then (aquí, ahí, ahora, entonces) en posición inicial de cláusula, 2) inversiones adverbiales desencadenadas por adverbios enumerativos tales como first, second, third, fourth, finally, lastly (primero, segundo, tercero, cuarto, finalmente, últimamente) en posición inicial de cláusula, 3) inversiones adverbiales provocadas por adverbios aditivos o anafóricos tales como so, neither o nor (así, ni, ni) en posición inicial de cláusula, 4) inversiones subordinadas en las que la conjunción subordinada as (como) va seguida por el verbo copulativo be y la idiomática frase nominal the case (el caso).

La sección 4.1.1 analiza la distribución y uso de la inversión total obligatoria en el inglés escrito. La principal conclusión obtenida en el análisis es que los textos de ficción y noficción no difieren en gran medida en el número de inversiones que emplean, pero sí lo hacen en el uso que realizan de los diferentes tipos de inversión total obligatoria mencionados en el párrafo anterior. La inversión adverbial obligatoria introducida por los adverbios deícticos here, now, there, y then que, como se demuestra en la sección 4.2.1, es la inversión obligatoria prototípica en la lengua hablada, se encuentra con mayor frecuencia en los textos de ficción que en los textos de no-ficción. Ello es debido a que los textos de ficción tienden a incluir narraciones en primera persona en los que determinadas características conversacionales también pueden estar presentes. Los textos de no-ficción, sobre todo los de las categorías Ciencia y Miscelánea, tienen una menor orientación conversacional y, por tanto, hacen uso de un menor número de inversiones obligatorias de este tipo. El resto de tipos de inversiones obligatorias, es decir, inversiones adverbiales desencadenadas por adverbios enumerativos tales como first, second, third, fourth, finally, lastly, inversiones adverbiales provocadas por adverbios aditivos o anafóricos tales como so, neither o nor, e inversiones subordinadas en las que la conjunción subordinada as va seguida por el verbo copulativo be y la idiomática frase nominal the case, se encuentran con mayor frecuencia en
los textos de no-ficción que en los textos de ficción. Estos tipos de inversiones obligatorias son especialmente frecuentes en la categoría de Ciencia, donde se utilizan para comparar ideas, conceptos o resultados, y para crear cohesión textual y estructurar el desarrollo lineal de los argumentos. Este tipo de desarrollo linear es más raro en los textos de ficción dado que los tópicos son menos estructurables.

La sección 4.1.2 analiza la distribución y el uso de la inversión total no-obligatoria en el inglés escrito. Al contrario que determinados estudios previos (cf. Green 1982; Dorgeloh 1997; Denison 1998; Biber et al. 1999; Kreyer 2004), la presente Tesis Doctoral demuestra que los textos de ficción y no-ficción no difieren en el número de inversiones totales noobligatorias que utilizan, sino más bien en los tipos de inversiones no-obligatorias que emplean y en las diferentes funciones que dichas inversiones realizan en el discurso. La sección 4.1.2.1 muestra que la inversión preposicional, la inversión adverbial, y la inversión verbal son mucho más frecuentes en los textos de ficción que en los textos de no-ficción. Además de estas diferencias estadísticas, los datos obtenidos en este estudio ponen de manifiesto que el tipo de constituyente inicial de cláusula utilizado en estos tres tipos de inversión difiere en ambos géneros. Los textos de ficción, que contienen numerosas referencias al pasado y a lugares (cf. Biber 1988), prefieren el uso de constituyentes que transmitan un significado locativo, y la inversión preposicional, adverbial, y verbal tiene lugar en contextos en los que se describe una disposición espacial. Con la excepción de la categoría de Reportajes periodísticos, cuyos textos también incluyen algunos contextos narrativos, los textos de no-ficción no siguen esta tendencia, y emplean en mucho menor medida inversiones preposicionales, adverbiales, y verbales en las que el constituyente inicial de cláusula transmite un significado locativo. Esto se produce porque, los textos de no-ficción
incluyen menos descripciones espaciales y temporales, que son los contextos lingüísticos en los que tienden a ocurrir estos tipos de inversiones.

Teniendo en cuenta los resultados mencionados anteriormente, este análisis afirma que, en el discurso de ficción, las inversiones preposicionales, adverbiales, y verbales pueden ser consideradas marcadores de una iconicidad espacial basada en la experiencia (cf. Enkvist 1981). Este tipo de iconicidad, que es una variante de iconicidad diagramática en la acepción que postula Peirce (cf. Haiman 1980), se encuentra en descripciones literarias que imitan en su estructura el proceso de la experiencia visual que el ser humano tiene en la vida. El proceso de percepción funciona de tal manera que los videntes perciben primero las entidades más llamativas en un contexto, y sólo después de eso centran su atención en otras entidades o partes de las entidades más llamativas. Sin embargo, dicha percepción se realiza en un contexto espacial que no sólo es esencial en la interpretación de la entidad más llamativa, sino que es normalmente compartido por el emisor y el receptor del mensaje. En las descripciones espaciales de los textos de ficción, el conocimiento compartido del contexto entre emisor y receptor no tiene necesariamente porqué ocurrir. Por este motivo, como se demuestra en esta investigación, la importancia de dicho contexto es reflejado de manera marcada en la sintaxis por parte del escritor mediante la topicalización icónica de una frase adverbial o preposicional locativa y la posposición del sujeto. El uso de la inversión preposicional, adverbial, o verbal como instrumentos gramaticales que crean iconicidad espacial permite al escritor estructurar un discurso descriptivo adaptado al modo en cómo percibimos la realidad, y constituye una forma frecuente de organizar el discurso narrativo. El orden de los constituyentes refleja icónicamente la importancia del contexto en la interpretación de lo que se describe. La descripción se estructura, por tanto, de tal modo que favorece su comprensión por parte del receptor, dado que el contexto favorece una interpretación entre múltiples interpretaciones
posibles. El centrar la atención primero en el contexto es esencial para contextualizar las diferentes figuras que tienen lugar en él. La sección 4.1.2.2 muestra que la inversión nominal, la inversión adjetiva, y la inversión subordinada ocurren con mayor frecuencia en textos de no-ficción que en textos de ficción. Estas inversiones, que no expresan un significado locativo, no se utilizan como marcadores de iconicidad espacial en el discurso, sino que expresan relaciones abstractas y sirven como elementos de cohesión para dar estructura al texto. Su mayor frecuencia en textos de no-ficción está relacionada con el grado abstracto de dichos textos, que normalmente contienen pocas especificaciones temporales y elementos deícticos.

La sección 4.2 ofrece un análisis de la distribución y el uso de la inversión total en la lengua hablada, en el que se demuestra que el habla y la escritura no difieren en gran medida en la cantidad de inversiones totales que emplean, sino más bien en los diferentes tipos de inversión que utilizan. Los textos escritos utilizan la inversión no-obligatoria en mayor medida que la inversión obligatoria, mientras que los textos hablados realizan un mayor uso de la inversión obligatoria en detrimento de la inversión no-obligatoria.

La sección 4.2.1 demuestra que la inversión total desencadenada por adverbios deícticos, en función presentativa, es la inversión obligatoria prototipo en inglés hablado contemporáneo. Este tipo de inversión se utiliza con mucha mayor frecuencia en la lengua hablada que en la escrita porque su uso está supeditado a condiciones de reciprocidad en las cuales emisor y receptor están presentes o comparten un mismo campo perceptivo durante el evento discursivo. Esto no ocurre en la lengua escrita en la que, con la excepción de contextos de estilo directo en los que las características conversacionales también están presentes, hay una completa ausencia de copresencia e interacción entre escritor y lector. Las inversiones obligatorias provocadas por adverbios enumerativos, anafóricos, aditivos, y las inversiones
obligatorias con la construcción idiomática as + be + the case se utilizan con mayor frecuencia en los textos escritos que en los textos orales. Estas inversiones, que realizan una función de cohesión textual, son más necesarias en la lengua hablada, que no puede recurrir a instrumentos "no-sintácticos" tales como la entonación para crear cohesión.

La sección 4.2.2 analiza la distribución de la inversión no-obligatoria en la lengua hablada. La mayor parte de las inversiones preposicionales, adverbiales, y verbales del corpus oral contienen un constituyente inicial de cláusula con un elemento locativo, y realizan una función icónica espacial (cf. 4.2.2.1). Sin embargo, esto tan sólo ocurre en las categorías de Entrevistas televisivas y Retransmisiones periodísticas, que incluyen textos diseñados para ser leídos en voz alta en los que hablante y oyente no comparten el contexto durante el evento discursivo. El resto de los textos orales analizados en el estudio, que no están diseñados para ser leídos en voz alta, incluyen contextos en los que hablante y oyente comparten el contexto, y el uso icónico espacial de la inversión preposicional, adverbial o verbal es mucho menor. De igual modo, las inversiones nominales, adjetivas, y subordinadas, que realizan una función cohesiva en el discurso, son más frecuentes en el lenguaje escrito que en el oral (cf. 4.2.2.2). Ello es debido a que la lengua hablada, que es más fragmentada que la lengua escrita (cf. Chafe 1992), puede hacer uso de instrumentos fonéticos para crear cohesión en el discurso y puede, por tanto, depender menos de construcciones sintácticas tales como la inversión nominal, adjetiva, y subordinada para tal propósito.

Finalmente, la sección 4.3 realiza un breve análisis de la inversión obligatoria en el marco de la Gramática Construccional, una teoría lingüística que considera a las oraciones básicas como ejemplos de construcciones, que en sí mismas expresan un significado y existen independientemente de las palabras léxicas que las componen (cf. Goldberg 1995). Esta investigación demuestra que la inversión total puede ser considerada una construcción en
inglés contemporáneo, dado que la gran mayoría de los ejemplos que se han analizados tienen una sintaxis que difiere del orden SVO de palabras característico del inglés, contienen un elemento especial que señala la construcción, y se relacionan entre sí compartiendo algo con una construcción inversiva que es prototípica. El análisis de la inversión obligatoria que se lleva a cabo en esta sección distingue una inversión obligatoria prototípica, i.e. la inversión presentativa, y tres extensiones del prototipo, i.e. la inversión secuencial, la inversión aditiva y la inversión subordinada. Todas las extensiones, cuyo significado pragmático se extiende de presentativo a cohesivo, comparten con el prototipo la presencia de un constituyente inicial de cláusula que desencadena la inversión, un verbo intransitivo, y un sujeto pospuesto. Un análisis más detallado de la inversión en el marco de la Gramática Construccional sería un buen modo de expandir la presente Tesis Doctoral. Por ejemplo, sería interesante explorar el fenómeno de la inversión no-obligatoria como construcción, así como examinar sus relaciones con la inversión obligatoria y otras construcciones en el orden de palabras del inglés. De un análisis tan detallado, que sin duda acometeré en futuras investigaciones, se obtendrán resultados interesantes que ayudarán a clarificar todavía más el uso sintáctico y pragmático de la inversión total tanto en la lengua escrita como en la lengua oral.


[^0]:    ${ }^{1}$ There is no complete agreement among scholars as to what exactly is understood by verb phrase. According to Huddleston and Pullum (2002: 22), the term verb phrase refers to "a verb group and its various complements". By contrast, Quirk et al. (1985: 62) consider that "verb phrases consist of a main verb which either stands alone as the entire verb phrase, or is preceded by up to four verbs in an auxiliary function". It is this last sense that is adopted in this study, whereas the term predicate will refer to the main verb plus accompanying elements. For details, see Biber et al. (1999: 99).

[^1]:    ${ }^{2}$ The term appended clause is taken from Erdmann (1990) and refers to clauses which are linked to a nearby clause through an inverted construction, as in sequences such as they want to vote, do my neighbours. Appended inversion is also labelled postponed-identification apposition (cf. Quirk et al. 1985: 1310).
    ${ }^{3}$ The additive adverb is said to have a linking-function, but at the same time it introduces additional information into the discourse. See Dorgeloh (1997: 26-28) for details.
    ${ }^{4}$ As will be noted in due course (cf. 1.3), pro-forms, correlative elements, and additive, negative or restrictive adverbs, when occurring in clause-initial position, may also co-occur with full inversion. Such instances will not be excluded.

[^2]:    ${ }^{5}$ This fact is also noted by Quirk et al. (1985: 1382) who note that in examples like (33) the inversion involves the main verb of the clause. This is shown by the fact that a whole verb phrase could replace the verb, i.e. So great had been the apathy that the government could probably go in or out.

[^3]:    ${ }^{6}$ The different correlative subordinators covered in this type of full inversion are appropriately listed in Quirk et al. (1985: 999). They include as ... so, as ... as, so ... that, such ... that, no sooner ... than, etc.

[^4]:    ${ }^{7}$ Topic has been defined in different ways in linguistics. There have been recent attempts to construct a theoretical notion of topic, nevertheless there is still much terminological complexity and different uses of the term. One use of topic is associated with descriptions of sentence structure, where it identifies a particular

[^5]:    constituent within the clause, and is considered the entity about which something is said, as opposed to comment, which refers to what is said about the entity (cf. i). Another view of topic is held by Brown and Yule (1983: 70), who define it as "clearly an intuitive satisfactory way of describing the unifying principle which makes one stretch of discourse 'about' something and the next stretch 'about' something else". In other words, a topic is a chunk of discourse treated as a unit and refers to "what is being talked about in conversation" (ibid. 1983: 72), marking where one part of a conversation ends and another begins. For details, see, Brown and Yule (1983: 69 ff ).

[^6]:    ${ }^{8}$ Following Van Valin et al. (1997), by "functional" I understand any approach to linguistic explanation which is not exclusively based on the syntax of the clause. In consequence, pragmatic and cognitive approaches are included in the group of "functional" approaches.

[^7]:    ${ }^{9}$ I shall not give here an in-depth analysis of these hypotheses. Only superficial remarks will be made since generative accounts of full inversion are not of immediate relevance to the present study. Interested readers are referred to Hooper and Thompson (1973), Emonds (1976), Bresnan and Kanerva (1992a, 1992b), and Schachter (1992), among others.

[^8]:    ${ }^{10}$ Note, however, that noun phrase inversion represents a notable exception in this respect.

[^9]:    ${ }^{11}$ The term stylistic, when used by generative linguists, refers to those syntactic phenomena that cannot be explained on the basis of the syntactic rules of generative theory. It is akin in meaning to pragmatics.

[^10]:    ${ }^{12}$ See also Green (1980: 595), who, as will be pointed out, claims that this re-introduction produces a feeling of emphasis or expectation.

[^11]:    ${ }^{13}$ Alternatively, notice that the use of full inversion allows the focus of information, i.e. a little angel, to be placed towards the end of the information unit and match the principle of end-focus. A canonical SVO wordorder, e.g. A little angel stood outside, would be disconcerting not simply because of the casual mention of the angel, as argued by Green, but more importantly because it would violate end-focus. That is, the new information would be placed in clause-initial position whereas the given information, i.e. outside, would be placed last. Additionally, the SVO word-order would not comply with the well-known principle of end-weight, i.e. the tendency for long or more complex constituents to be placed in clause final position and light constituents to be placed initially (cf. 2.2.2). The subject, though heavier than the remaining constituents - the verb stood and its complement outside - would be placed in clause-initial position.

[^12]:    ${ }^{14}$ All instances provided in the rest of this subsection are taken from Green (1982).

[^13]:    "the tailoring of an utterance by a sender to meet the particular assumed needs of an intended receiver. That is, information packaging in natural language reflects the sender's hypotheses about the receiver's assumptions and beliefs."

[^14]:    There is a general tendency in clause construction to prefer those structures that allow to integrate the content of the clause as soon as possible into the already existing text structure.

[^15]:    ${ }^{15}$ For additional information on FLOB and FROWN see Hofland et al. (1999) and Mair (2002).
    ${ }^{16}$ See Appendix I for a more detailed description of the organisation of the FLOB corpus.

[^16]:    ${ }^{17}$ See Appendix I for a more detailed view of the organisation of the parallel FROWN corpus.

[^17]:    ${ }^{18}$ For further details on both corpora see Nelson (1988) and Barlow (2000).

[^18]:    ${ }^{19}$ Notice, however, that Legal English is included in the spoken texts of the corpus (cf. Table 14). For an indepth description of the organisation of texts in ICE-GB see Appendix I.

[^19]:    ${ }^{20}$ There are numerous computer-based corpora generally available for the analysis of English linguistic phenomena. Taylor, Leech, and Fligelstone (1991) survey more than 36 machine-readable corpora. This number is even higher nowadays and compilation of corpora has been steadily increasing in recent years. Nevertheless, it is worth noticing that parsed corpora, especially suitable for the analysis of full inversion, are fairly rare.

[^20]:    ${ }^{21}$ See Nelson (1996a) and (1996b) for further details on the tagging and parsing system in ICE-GB.
    ${ }^{22}$ The compilation of spoken American English corpora has been utterly neglected. The CSPAE corpus is, to my knowledge, one of the most notable exceptions to this claim.
    ${ }^{23}$ See Appendix I for a detailed description of CSPAE.

[^21]:    ${ }^{24}$ Comm and Comr refer to conferences held around the United States, whereas Wh and Facmt stand for White House meetings and Faculty meetings respectively.

[^22]:    ${ }^{25}$ The Miscellaneous textual category comprises government documents, foundations reports, industry reports, college catalogues and in-house industry texts. See Appendix I for details.

[^23]:    ${ }^{26}$ The term genre has often a very vague meaning in linguistic studies. The textual categories of FLOB and FROWN correspond to what Biber (1988: 170) terms genre categories.

[^24]:    ${ }^{27}$ The Science textual category in FLOB and FROWN matches what Biber (1988) labels the Academic prose genre. This term is taken from LOB and BROWN, two corpora compiled in the 1960s which match the structure of FLOB and FROWN. For details see Hofland et al. (1999) and Mair (2002).
    ${ }^{28}$ Official documents are comprised in the Miscellaneous textual category of FLOB and FROWN (see Appendix I for details).

[^25]:    ${ }^{29}$ ICECUP stands for International Corpus of English Corpus Utility Program. For further information on the software see Porter and Quinn (1996).

[^26]:    ${ }^{30}$ Since the categories of fictional and non-fictional texts differ in size (see Appendix I and II for further details), frequencies have been normalised per 100,000 words following Biber's (1988:14) proposal for a "normalised frequency of a feature" (cf. section 3.3.1).

[^27]:    ${ }^{31}$ See Biber (1988: 191) for a similar view.

[^28]:    ${ }^{32}<\mathrm{p}_{-}>$and $<\mathrm{p} />$ are mark-up code conventions used in FLOB and FROWN to indicate the beginning and end of a paragraph respectively.

[^29]:    ${ }^{33}$ El término appended clause ha sido tomado de Erdmann (1990). Su traducción al castellano es difícil de concretar, puesto que no existe una estructura sintáctica equivalente en nuestro idioma. Por este motivo, he decidido mantener la terminología inglesa, señalando que se trata de cláusulas que van unidas a la cláusula contigua mediante una estructura de inversión, y que especifican la información proporcionada por el sujeto, que se reintroduce mediante una frase nominal (cf. 1.2.4).
    ${ }^{34}$ Estructuras existenciales con there (= existential-there; cf. Downing y Locke, 1992: 257), estructuras con dislocación a la izquierda (= left-dislocation; cf. Bosque y Demonte, 1999: 4222), estructuras con topicalización (= preposing; cf. Biber et al., 1999: 900) y estructuras ecuativas (= equative structures; cf. Alcaraz Varó y Martínez Linares, 1997: 403).

[^30]:    ${ }^{35}$ El término allosentence no posee un equivalente léxico en nuestro idioma. Debido a ello, he decidido mantener la terminología anglosajona, señalando que las allosentences son las diferentes alternativas sintácticas de las que dispone la lengua para organizar la información en el discurso. Todas tienen idéntico significado proposicional pero difieren en el significado comunicativo que transmiten. Esta propiedad de las allosenteces se puede probar mediante su inserción en el texto, en donde se ha demostrado que no todas las alternativas sintácticas son aceptables. Además del factor textual, otros factores pragmáticos condicionan el uso de una variante sintáctica en detrimento de las demás.

