Syntactic variation in English quantified noun phrases with all, whole, both and half
Syntactic variation in English quantified noun phrases with all, whole, both and half

Maria Estling Vannestål
Abstract

The overall aim of the present study is to investigate syntactic variation in certain Present-day English noun phrase types including the quantifiers all, whole, both and half (e.g. a half hour vs. half an hour). More specific research questions concerns the overall frequency distribution of the variants, how they are distributed across regions and media and what linguistic factors influence the choice of variant. The study is based on corpus material comprising three newspapers from 1995 (The Independent, The New York Times and The Sydney Morning Herald) and two spoken corpora (the dialogue component of the BNC and the Longman Spoken American Corpus).

The book presents a number of previously not discussed issues with respect to all, whole, both and half. The study of distribution shows that one form often predominated greatly over the other(s) and that there were several cases of regional variation. A number of linguistic factors further seem to be involved for each of the variables analysed, such as the syntactic function of the noun phrase and the presence of certain elements in the NP or its near co-text. For each of the variables, all factors were ranked according to their strength of correlation with particular variants. The study also discusses a possible grammaticalisation process concerning NPs with half and the possibility of all sometimes having another function than expressing totality: to express large quantity.

The whole idea of grammatical synonymy has been questioned by some scholars, but the conclusion drawn in the present study is that there are variables that are at least very close to each other in meaning, and that a number of linguistic and non-linguistic factors influence our choices of variant. A great deal of the information obtained was too detailed to be useful for pedagogical purposes, but in several cases the results could clearly be used to improve school and reference grammars.

Keywords: syntactic variation, quantifiers, all, whole, both, half, linguistic factors, British English, American English, Australian English, grammaticalisation, totality, corpus, newspaper corpus

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To my father Lars
Preface

Some time ago, I heard someone suggest that researchers seem to choose their scientific approach according to their personalities. People who lead very organised lives tend to go for structuralism and other well-organised formal theories, whereas people who live in chaos (with animals and children, for instance) opt for messier theories. I found this quite interesting and realised that, considering the fact that my life includes a large number of these chaotic elements (children, dog, cats), I should go for a messy theory. On the other hand, I have another, more organised side to my personality, a side that keeps all documents in neat files and all photos in albums, so perhaps structuralism would suit me just as well. Perhaps it is this combination of messiness and order that made me not want to opt for a particular school or theory, but rather try to carry out a theory-neutral study.

What really set this study afloat is frustration at the shortage of information about syntactic variation in many grammar books. This frustration, however, turned into fascination as my research progressed and as I evolved into a fanatic fan of authentic text corpora. Sometimes I wondered whether the writing of the thesis would take half (of) my life, all (of) my life or perhaps even both (of) my lives (provided I end up as an English linguist in my next incarnation as well). But here it is.

Many people have been involved, in one way or another, in the process of completing this book. I would like to thank…

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My final thanks go to my father Lars, who often talked about his disappointment at not being able to undertake academic studies himself, but who always supported me in my own studies. Sadly, he is not with us physically anymore, but I am convinced that, from wherever he is now, he shares my happiness about finishing the PhD project. I dedicate this book to him.

Målajord in March 2004

Maria Estling Vannestål
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1. Introduction

1.1 Background

English, like many other languages, contains a large number of seemingly synonymous grammatical structures. Some linguists claim that grammatical synonymy does not exist (see Section 2.1.2), but this is still how language is presented in many school and reference grammars. Consider the following examples from one of the most influential reference grammars of English: *A Comprehensive Grammar of the English Language* (Quirk et al 1985:381f).

(1:1) All (of) both (of) the boys want to become football players.

(1:2) All of us like Peter.

The first example illustrates the fact that *of* is optional in quantified noun phrases with *all* and *both* preceding the definite article. The second example shows a case where *all* can occur in different positions in relation to a personal pronoun.

When there is more than one way of expressing something in a language, we make a conscious or unconscious choice between variants. In some cases it is obvious that the preference for one syntactic variant over another has to do with, for instance, regional or register variation (Quirk et al 1985:16; Trudgill & Hannah 2002:55ff; Biber et al 1998:5f). In other cases, no such factors seem to be involved, and two syntactic variants are thus often considered interchangeable:

[… we may not be able to account always for the choice of one rather than another linguistic form; we sometimes find DIVIDED USAGE, a choice between variants, the conditions for which cannot be attributed to the variety distinctions discussed in this chapter [i.e. region, social group, field of discourse, medium and attitude] […] Neither member of such pairs is necessarily linked to any of the varieties that we have specified. (Quirk et al 1985:31)
School grammars are often frustrating for non-native speakers of English desiring to learn which variant to use in a particular situation. For the most part, little or no information is provided concerning aspects such as frequency, regional and stylistic variation, or linguistic factors influencing the variation. Comprehensive reference grammars like Quirk et al (1985) and Huddleston & Pullum (2002) offer more than most school grammars do; nevertheless, there are cases where the information is not sufficient. A likely reason for these shortcomings is that authors are not aware of the details of the variation.

Corpora of authentic text are a convenient tool for the study of language variation in cases where intuition does not give enough information\(^1\) (cf. Biber & Finegan 1991 and Biber et al 1998). Clearly, corpora are useful for investigating non-linguistic factors such as region, medium and register influencing the variation. Furthermore, several linguists have shown that they can also be used for detecting more subtle linguistic patterning in language (e.g. Sinclair 1991 and Biber et al 1998:5).

In recent years, several areas of syntactic variation have been studied by means of text corpora.\(^2\) This study focuses on one small area of English grammar: a number of noun phrase types with *all*, *whole*, *both* and *half*. These words are generally referred to as “quantifiers”, and the area contains several interesting types of syntactic variation. Quantification has often been explored by theoretical linguists, but there are few empirical studies that describe how these words are used in Present-day English. For two exceptions, see Kennedy (1987) on quantification in relation to English language learning and J. Hudson (1998) on fixed expressions with *all*. To my knowledge, there are no corpus-based variation studies involving these quantifiers.

Besides supplying quantitative data on frequency distribution overall and across different dialects and media, the present study will also look at how various linguistic factors (located in the NP itself or in its co-text\(^3\)) can be involved in the choice between two or more different variants.

### 1.2 Aims

The overall aim of the study is to investigate syntactic variation in some Present-day English noun phrase types including *all*, *whole*, *both* and *half*. More specific aims are accounted for below in this section (in the form of research questions). An additional aim is to test a methodology for investigating syntactic variation. The underlying assumption is that although the NPs in focus are near-synonymous grammatical structures, there are a number of linguistic and non-linguistic factors which influence the variation.

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\(^1\) The advantages and problems of corpus linguistics are discussed in Section 4.1.

\(^2\) A few examples are presented in Sections 2.2 and 2.3.

\(^3\) I prefer to use the word ‘co-text’ rather than ‘context’ (following Brown & Yule 1983:46), since the latter can be ambiguous. ‘Co-text’ refers to words in the textual surroundings of a word or structure, whereas ‘context’ is used by some linguists with this sense, by others to refer to a particular situation or culture.
Henceforth, we will follow the standard terminology used in syntactic variation research and speak about “variables” and “variants” to refer to the NPs investigated in the present study, as illustrated by Figure 1.1.

![Figure 1.1. Example of variables and variants in the study](image)

“Variant” is used to describe one of two or more alternative constructions, e.g. \([all + GEOPGRAPHICAL NAME]\) (as opposed to \([all of + GEOPGRAPHICAL NAME]\) and \([the whole of + GEOPGRAPHICAL NAME]\)), and “variable” refers to a group of such variants.

The following four variation patterns were observed among the variables investigated:

- patterns resulting from the presence or absence of the preposition \(of\): e.g. \(all the children\) vs. \(all of the children\)
- patterns resulting from the presence or absence of the definite article: e.g. \(both children\) vs. \(both (of) the children\)
- patterns resulting from alternative positions of the quantifier: e.g. \(half an hour\) vs. \(a half hour\)
- patterns resulting from the use of alternative lexical elements: e.g. \(all the book\) vs. \(the whole book\)

The last of these four patterns is a case of lexical rather than syntactic variation.\(^5\)

The inclusion of \(whole\) was necessary, however, so as to give a comprehensive description of cases like \(all the/all of/the whole book\). A complete list of the noun phrase types investigated can be found in Appendix A. It was compiled by consulting a number of school and reference grammars as well as more popular usage guides. The list includes cases where the head of the NP is a common noun, a geographical name, a pronoun (demonstrative or personal) or a numeral.

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\(^4\) Whether \(of\) is really a preposition or not has been discussed by, for instance, Sinclair (1991:82f). See further Section 3.3.4.1.

\(^5\) \(Entire\) was excluded on the basis that it is less frequent, less neutral and seems to be less often perceived as a function word, compared to \(whole\). This decision was strengthened by the fact that it is seldom described as a function-word alternative to \(all\), whereas \(whole\) is often included in grammars (see, for instance, Quirk et al 1985:259f).
The following research questions will be addressed:

1. What difference in overall frequency distribution can be found between the variants?

2. Which of the following non-linguistic factors influence the variation and how strong is their influence?
   - Regional variation: Is there a difference in the distribution of variants between British, American and Australian English?
   - Medium: Is there a difference in the distribution of variants between spoken and written English?

3. Which of the following linguistic factors influence the variation and how strong is their influence?
   - Type of central determiner: Does the NP contain the definite article (e.g. all the books), a demonstrative determiner (e.g. all these books) or a possessive determiner (e.g. all my books)?
   - Factors relating to the NP head:
     (a) Noun vs. demonstrative pronoun: Is the head of the NP a noun (e.g. all these children) or a demonstrative pronoun (e.g. all these)?
     (b) Number and countability: Is the head of the NP a singular count noun (e.g. half the book), a mass noun (e.g. half the butter) or a plural noun (e.g. half the children)?
     (c) Divisibility of the noun in NPs with singular count nouns: Is the noun divisible into equal parts (e.g. all the family) or indivisible (e.g. all the valley)?
     (d) Animacy of the noun: Is the head of the NP animate (e.g. all the family) or inanimate (e.g. all the book)?
     (e) Natural vs. arbitrary time division in NPs with temporal nouns: Is the noun a result of natural time division (e.g. the whole year) or arbitrary (man-made) time division (e.g. the whole century)?
     (f) Type of “head” in NPs with half and the indefinite article: Is the “head” of the NP a noun expressing time or space (e.g. half a day/mile), a noun for partitive relations (e.g. half a pint of beer), a numeral or noun to do with figures (e.g. half a dozen) or another word not regularly associated with measurement (e.g. half a victory)?

6 See Section 7.3.6 for an explanation of the inverted commas around “head”.
The presence of certain elements in the NP or its near co-text:

(a) Modifiers: Does the NP include a modifier (e.g. *all the small children*)?

(b) An adjacent of: Is there another of in the NP (e.g. *all the different kinds of people*) or immediately preceding it (e.g. *the importance of all the regulations*)?

(c) Focus markers: Does the NP contain an element which gives more focus to the totalising function of the quantifier (e.g. *nearly all the children*)?

Syntactic function of the noun phrase: Is the NP a subject (e.g. *All the books were good*), a direct object (e.g. *I bought all the books*), a prepositional complement (e.g. *I gave extra handouts to all the students*) etc.?

The linguistic factors analysed were arrived at partly by intuition, partly by consultation of secondary sources. We will gradually move from NP-internal to NP-external factors. It should be observed that in some cases a linguistic factor is relevant to all the variables under investigation, whereas in other cases only one or a few variables are involved (see further Chapter 7).

The focus is on variants that are presented as synonymous or nearly synonymous in the literature. In other words, the choice between variants should not cause any vital change in propositional content. The study could have been extended to include words like *either, neither* and *each* (which indeed exhibit variation similar to *all, whole, both* and *half*: e.g. *either boy – either of the boys*). Instead, at an early state I opted for greater detail by limiting the scope to a few words. The variants studied are part of standard English, even though this concept is not unproblematic (see Section 2.2). Some non-standard variants will also be accounted for briefly, but not included in the figures on distribution.

The study is mainly descriptive and aims at being relatively theory-neutral, but not theory-independent. This implies that it does not adhere to one particular theory, but, when useful, draws on previous work within different syntactic and semantic traditions. The study is located, however, within two methodological frameworks: syntactic variation research and corpus linguistics. The study looks at one particular language (English), even though it makes some comparisons with other languages, mainly French and Swedish. Besides improving our general knowledge about syntactic variation in quantified noun phrases, the results of my analyses will hopefully contribute to the improvement and updating of teaching and reference materials. Some teachers dismiss variation studies as some-

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7 “Focus marker” is a term used in the present study to refer to elements, e.g. other quantifiers and approximators, that tend to give more focus to the totality meaning of NPs with *all* and to the measuring function of NPs with *half*. See further Section 7.4.3.

8 Besides the more scholarly based literature, a few more popularly written usage guides (e.g. Swan 1995 and Berry 1997) proved useful since they are influential and contain some interesting claims on usage.
thing which complicates their work by showing that everything is possible (cf. Aarts 1976:246; Rydén 1979:14). However, as pointed out by Rydén (1979:14): “our aim is of course not to show that everything is possible, but to show when and how often (in terms of relative frequencies) a specific variant is used, i.e. the contextual significance or appropriateness of syntactic variants […]. School-grammars must necessarily supply oversimplified rules […], but the formulation of these rules must be founded on the delicacies of syntactic research.”

The corpus material comprises British, American and Australian newspaper text and British and American conversation. For the study of overall frequency distribution and the non-linguistic factors (region and medium), all of the material was used. For the more in-depth study of linguistic factors (such as the presence of a modifier in the NP or the syntactic function of the NP), samples were extracted from the total corpus population. The tokens in these samples were then categorised according to two or more categories for each linguistic factor. All correlations (both with non-linguistic and linguistic factors) were tested for significance and the results of this testing were also used for a ranking of the strength of each factor category with respect to each of the variants. The material and methodology are described in more detail in Chapter 4.

1.3 Outline of the thesis

This first chapter serves as an introduction to the study, providing a general background, the overall aim and more specific research questions. The next chapter offers a description of the area of syntactic variation in English. Chapter 3 gives an overview of how the English noun phrase and especially the quantifiers all, whole, both and half have been treated in the literature, including a brief historical background to each of the words. Chapter 4 provides the prerequisites for the corpus-based analysis by discussing the use of corpora, describing the corpus material and accounting for the procedures used in the corpus searches, sampling of data, analysis of factors and ranking of factor strength. The actual results of the analysis are presented in Chapters 5 to 7. Chapter 5 gives the overall frequency distribution of the variants for each variable and Chapter 6 describes their distribution according to region (British, American and Australian English) and medium (speech and writing). Chapter 7 presents and discusses a number of correlations between linguistic factors and variants. Throughout Chapters 5 to 7, numerous tables, graphs and examples are used for illustration of the result. A visualisation of the results including a ranking of the correlations is presented in Chapter 8, together with some concluding remarks on the usefulness of the study and ideas for future research. Finally, the appendices provide (i) complete lists of the variants studied and (ii) complete lists of exclusions, (iii) more specific information about the search techniques used for each of the different corpora, (iv) tables showing the figures from the analyses of linguistic factors and finally (v) tables showing the results of significance tests.
Modern linguistics has often focused on the discreteness of linguistic categories and claimed that variation and frequency of use can be discarded as irrelevant to the study of linguistic competence (Bod et al 2003:1). However, language variation has been given a great deal of attention since the 1960s, especially through the sociolinguistic research carried out by, among others, William Labov, David and Gillian Sankoff, Henrietta Cedergren and Peter Trudgill (Rydén 1979:5; Quirk 1995:1). In the beginning, the focus of variation research lay heavily on phonology, but the area was later extended to include syntactic variation (cf. G. Sankoff 1973). Many variation studies have been framed within sociolinguistic theory, where the focus has been on social and stylistic factors. Social differentiation is in fact a frequently used criterion for defining appropriate variables (Coveney 1996:53). During the 1970s and 1980s, a project initiated at Stockholm University, *Syntactic variation in English*, put the focus on quantitative linguistics and (to a great extent) on linguistic factors influencing variation (cf. Jacobson 1980b; 1982; 1983; 1986).

Coveney (1996:30) brings up three types of grammatical patterns of variability: “omissible items, alternating items and alternating structures”. The present study involves all three of these:

(1) omissive items: *of* and the definite article
(2) alternating items: *all* vs. *the whole*
(3) alternating structures: the position of the quantifier (as in *half a/an vs. a half*)

Two commonly used methods for variation research are elicitation tests (based on performance or judgment) and investigations of authentic corpus material (Jacobson 1982). In recent years, the possibility to access corpora has greatly facilitated variation research (see further Chapter 4).

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9 For more than thirty years now, the NWAV(E) association (standing for “New Ways of Analysing Variation (in English)” ) has arranged sociolinguistic conferences on variation (for the most recent proceedings, see Johnson & Sanchez 2002 and Sanchez & Horez 2003). There is also a journal devoted specifically to variation study: *Language Variation and Change*. 
2.1 Problems and perspectives

Variation research has encountered a number of different problems and various perspectives have been taken. We will here look at some of them, starting with perhaps the most widely debated issue, the syntactic variable and the meaning constant associated with it.

2.1.1 The meaning constant

Some scholars, especially within sociolinguistics, have discussed the problems of establishing a syntactic variable, since, as regards variation, syntax is much more complicated than phonology (cf. Lavendera 1978). The most important bone of contention is the nature of the meaning constant against which the variation is considered. Labov (1978:2) used formal semantic terms to refer to meaning, such as “same truth conditions”, but Jacobson (1980a:24), among others, questions whether truth-conditional equivalence is a sufficient criterion for syntactic variation. Should perhaps two syntactic variants result in sentences having not only the same propositional content, but also sharing stylistic, connotative, emotive and pragmatic meanings (Jacobson 1982:10f)? Romaine (1984:422ff) has argued for a wider definition, suggesting that same pragmatic meaning (i.e. two structures having “the same communicative intent”) could sometimes be regarded as the crucial constant. An example is two structures such as *I’m cold* and *Would you close the window?*, which in some circumstances have the same communicative purpose, viz. to make someone close a window. Biber et al (1999) recently defined the variants of syntactic variation as being “optional variants, in the sense that they are nearly equivalent in meaning” (ibid 14) and have “roughly the same communicative effect” (ibid 6). This implies that two variants should be near equivalents both from a semantic and a pragmatic point of view. Jacobson (1980a:26f; 1989:382) argues that each researcher should be allowed to choose a definition that best fits a certain purpose. The meaning constant issue is certainly important within many areas of syntax, especially when analysing fairly different grammatical structures. The starting-point here, however, is that the variables investigated are presented as such in the grammatical literature. The way these variables are presented in the grammars is likely to reflect the way the authors see them as “nearly equivalent in meaning” and having “roughly the same communicative function”.

2.1.2 Two forms = two meanings?

A related topic concerns the questioning by some scholars of the very existence of two synonymous grammatical structures (two forms – one meaning) in a language. As Biber et al (1998:77) put it:

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10 Other terms used to refer to the same thing are, for instance “descriptive synonymy” and same “conceptual, cognitive or denotative meaning” (Coveney 1996:52).
An obvious question from a use perspective is why a language should have structural alternatives with similar or equivalent meaning. That is, what different purposes do they serve, and how does a speaker know when to use each option?

Bolinger (1977:1ff, 19) declared that if two contrasting syntactic forms have survived in a language, they must have different semantic meanings. What he turned against most of all was the transformationalist view that two surface structures, such as passive and active voice, have the same underlying deep structure. Instead, he points to several facts that undermine the idea of synonymy in the passive–active distinction and similarly with some other supposedly synonymous structures, e.g. relative that/which/zero, to-infinitive vs. -ing form and the -one/-body ending in pronouns. Bolinger admits that not all cases of variation are easily dismissed as “non-synonymous”, especially not ellipsis and pronominalisation. One example is the two utterances Yes, I would and Yes, I would like to have some, used as replies to the utterance Would you like to have some tea. In these cases the difference is pragmatic rather than relating to “the inner structure of the sentence” (Bolinger 1977:5).

In maintaining that no grammar lacks meaning, cognitive grammarians like Langacker (1987:39, 1999:76) adhere to the principle that two different syntactic structures have different meanings, even if they have the same truth condition. For instance, since every grammatical item has meaning, there must be a difference between a structure with of and one without (Langacker 1991b:112f and also Sapir 1930:11, see further Section 3.3.4.1). Langacker views syntactic variation as “alternate ways of mentally construing the same objective circumstances” (Langacker 1988:7), i.e. situations being presented from different perspectives or with different foci (Langacker 1987a:39). Consider the following examples, based on Langacker (1988:8):

(2:1) (a) All cats are playful.  
(b) Any cat is playful.  
(c) Every cat is playful.  
(d) Each cat is playful.

In one way, these four sentences mean the same thing, the characteristic “playfulness” being applied to all members of the species “cats”. However, Langacker observes subtle differences in what images are mentally accessed by the speaker in the four cases:

All refers to the class collectively, as an undifferentiated mass. […] The other three quantifiers each refer to a single, arbitrary class member, but this member is conceived as being selected in such a fashion that the property attributed to it is similarly attributed to all the other members. The image conveyed by any is one

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11 Bolinger (1977:2) uses a cognitive explanation (“the mind is freer than the tongue”) to account for the fact that the opposite case (i.e. polysemy, several meanings attached to the same word or structure) is much more frequent.
of random selection: if one chooses a member at random, it will invariably display the property in question. Every and each are alike [...] in attributing the property to the full set of class members on an individual [...] basis. The difference between them is that each further suggests that the members are examined sequentially – one at a time – for this purpose. (Langacker 1988:8).

An interesting question arising from the idea that two grammatical structures are never synonymous is why two different regional varieties can prefer different grammatical structures (for examples, see Section 2.2.1). Does this mean that, for instance, an American and a Briton conceptualise the world in different ways? Langacker (1988:38) believes that individual speakers within each variety may very well perceive a subtle meaning distinction between two forms and use them under different circumstances. That there are differences in frequency distribution between varieties has to do with conventionalisation:

This merely reflects the imagery embodied by the symbolic resources of a language: out of all the ways of constructing a give type of situation, certain possibilities become conventionally established (i.e. represented in the grammar by symbolic units) to the exclusion of others. (ibid)

Therefore, even though two different structures are equally natural from a cognitive point of view, one form can, due to convention, become the preferred alternative in one particular variety; consequently another form is dispreferred. Still, Langacker argues that there are subtle meaning differences between structures: “speakers of the two dialects conventionally employ strictly different images to construe the situation for expressive purposes” (ibid). Actually, this should not be more surprising than the fact that two languages can have different conceptualisations of such things as colours and words describing family members. An example of the latter is that English has one single word for the son of either one’s sister or one’s brother, whereas these two concepts are expressed by two different words in Swedish.

Goldberg (1995:3) mentions some other scholars within various linguistic traditions who have also stated that they are in favour of the “Principle of No Synonymy of Grammatical Forms”, e.g. Givón (within functional grammar), Wierzbicka (within cognitive semantics) and Goldberg herself (within construction grammar).

The discussion of grammatical synonymy is relevant to my research, since the study includes cases of two variants which have been claimed by some people to be semantically different but which exhibit fairly great regional variation in the material (e.g. a half vs. half a/an). We will look at these cases in Chapter 7 and finally evaluate the idea of grammatical synonymy in Section 8.2. Also, how should cases where there is a correlation between a variant and a factor category in one regional variety but not in the other be dealt with? In the present study, such cases are accounted for in tables in the presentation of speech vs. writing, since here the whole corpus material was used and the correlations were considered relatively reliable. In the case of linguistic factors, however, only small
samples of the whole material were used. To ensure (to as large an extent as possible) that the correlations reported on had not occurred by chance, I present only those found in both British and American English in the tables and graphs. Correlations found in just one variety are only mentioned in the running text.

2.1.3 Knock-out effects

In a treatment of syntactic variation two important concepts that put syntactic variation out of play cannot be ignored: knock-out effects/constraints and fixedness. I will discuss these concepts in the following section. Knockout effects are cases where a factor “knocks out” the variation, resulting in a 100–0 relationship between variants and factors (Jacobson 1980a:28; Tottie 1991:62ff). A case of variation where two knock-out factors (one in each direction) are involved is described by Jacobson (1980a:32). He looked at variation between pre- and post-auxiliary placement of the adverbial probably and found that when a clause included contracted not, as in (2:2), probably was always used in pre-auxiliary position in his material. On the other hand, in the case of a contracted finite auxiliary, as in (2:3), post-auxiliary placement was the only variant occurring. The examples are taken from my corpus material, since Jacobson does not provide full example sentences.

(2:2) As a result, it probably can’t be done quickly. (NYT95)

(2:3) As long as bank managers have confidence in you, they’ll probably be pretty co-operative. (IND95)

Another example is taken from Tottie (1991:63) and concerns the choice between affixal and non-affixal negation (e.g. impossible vs. not possible). Here she found that when the negation is located in a premodification, the affixal variant is the only possible one:

(2:4) At the core of the problem is a political question: how to make choices within an imperfect society. (ibid)

Should tokens which are the result of a knock-out effect be included in a frequency study of syntactic variation? Jacobson (1980a:28) argues that perhaps they should, since they represent, so to speak, one end of a continuum. One

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12 The abbreviations of corpora used in the study are explained in Section 4.2. In this and the following chapter, the illustrating examples are, for practical reasons, taken from two of the corpora used, The Independent 1995 (henceforth IND95) and The New York Times 1995 (henceforth NYT95). In the presentation of overall distribution (Chapter 5), all corpora used in the study are represented in the examples, whereas in Chapter 7, all the examples are from IND95 and NYT95 (since only samples from those corpora were analysed in that chapter).

13 Jacobson (ibid) also observes that what the researcher presumes to be a clear knock-out factor at the outset of an investigation may turn out not to be entirely watertight, i.e. may not give a 100–0 relationship.
could imagine a scale from necessity to impossibility, with different degrees of probability constituting the intermediate area (see Figure 2.1).

![Figure 2.1. Variation pattern for an imagined variant (X).](image)

What the figure shows is that in the presence of Factor A, the particular variant at issue is necessary and alternative forms are impossible. At the other end, in the presence of Factor D, Variant X is not possible. In between the two endpoints, in the presence of Factor B, the probability of Variant X being used is lower than in the presence of Factor A, but higher than in the presence of Factor C, and so forth. Factors A and D are knock-out factors here, the former in necessitating Variant X and obstructing another variant and the latter in obstructing variant X and necessitating another variant.

Even though Jacobson (1980a:28) remarks that knock-out effects should be visible in an analysis of different factors, he reports on excluding them from the statistics in his own work (e.g. Jacobson 1982:7). This seems quite reasonable, since the correlation percentage is always 100–0 in those cases. D. Sankoff (1978:66) also writes that it is “necessary to identify knockouts and to remove data pertaining to them from the data set, prior to further statistical analysis.” There were a few instances of knock-out effects in my material. One clear case appeared in the variable with all/both and personal pronouns (e.g. all of us vs. we all). In cases when the NP was used in a minor clause (e.g. an apposition or short answer), the form with all of, as in (2:5), was always used.

(2:5) Not, of course, that Sir Robin will be sent back to go 12 rounds with Lu Ping again; but that he – indeed all of us – will one day soon have undreamt-of opportunities to regret the deal that was done in 1984. (IND95)

In the present study, all tokens resulting from knock-out effects will be accounted for and discussed, but they will be excluded from the statistics (see further Sections 4.3.2 and Appendix B).

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14 For a thorough and recent discussion of probabilistic linguistics, see Bod et al (2003).
2.1.4  Fixed expressions

Another case where variation is obstructed is when particular phrases have frozen to become fixed idiomatic expressions. These expressions are often accounted for in dictionaries and comprise, for instance, phrasal verbs (to stick out), conversational formulae (How do you do), similes (as good as gold) and proverbs (a stitch in time saves nine) (Aijmer 1996:1ff; J. Hudson 1998:15\(^\text{15}\); Moon 1998:2, 62).

J. Hudson (1998:8f) refers to four common ways of classifying “fixed expressions”\(^\text{16}\):

- syntactic variability restrictions: e.g. the other day – *the other days
- collocational variability restrictions: e.g. disaster area – *catastrophe area
- anomalous syntax or usage: e.g. all of a sudden (the adjective sudden used as a noun)
- figurative meaning: e.g. a hot potato

She also points out that the first two of these are the most generally applicable criteria. Figurative meaning is also a very common characteristic of fixed expressions; however, J. Hudson regards this as an underlying conceptual phenomenon as opposed to the other criteria which are rather “symptoms” of fixedness. In a study of syntactic variation, the first criterion is naturally the most relevant one, even though collocational variability restrictions and figurative meaning usually occur as well.

An example of a fixed expression from my material is the phrase all the rage, as in (2:6), which fulfils at least three out of Hudson’s four criteria.

\[(2:6)\] Tax efficiency is all the rage when picking mutual funds. (NYT95)

There is no syntactic variability (*all of the rage), no collocational variability (*half the rage) and the expression has figurative meaning (‘very fashionable’). Furthermore, this NP has predicative function, which is not anomalous syntax but an infrequent function of an NP with all (at least according to my material, cf. Section 7.5.6.1). At an early stage, I decided to exclude such expressions since they could contribute to a skewed picture of the variation. In contrast to the case of knock-out factors, these expressions do not belong at the endpoint of a variation continuum, since they concern particular expressions rather than whole variants. They need not have been excluded, however, since they did not affect the frequency distribution as much as expected (see Section 5.2).

Moon (1998:120ff) notes that fixed expressions are often not at all as fixed as one might think; there is certainly variation here as well, which becomes very

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\(^{15}\) Interestingly, from the perspective of this study, J. Hudson has looked at fixed expressions with all. We will have reason to come back to her investigation on several occasions below. Moreover, Aijmer (1985) has studied conversational routines including all, such as and all that used as a vague tag preceding a possible boundary in the discourse.

\(^{16}\) Cf. also Aijmer on fixedness criteria that particularly concern conversational routines, such as How do you do (1996:12ff).
clear when corpus material is used. She even found variation in such a textbook example of fixedness as the phrase *kick the bucket* (*kick the pail* and *kick the can*). Moon (ibid 132ff) further shows that there is dialectal as well as Register variation and that some variation is more institutionalised than other. The variation patterns exemplified by Moon mainly involve lexis. In many cases, the variation is restricted to one or a few words (e.g. *a skeleton in the closet/cupboard*) (ibid 124f). In other cases, the fixedness rather concerns a kind of frame with one or more context-dependent open word slot(s) which can be filled with basically any word (or phrase) as long as it corresponds to a particular grammatical element, such as a noun phrase, as in *X catches Y red-handed* (ibid 145ff).

In a few cases, expressions that are presented as fixed in dictionaries turned out to exhibit syntactic variation in my corpus material (see Appendix B). All the *time*, for instance, is often considered to be fixed, but all of the *time*, as in (2:7), and the whole *time* occurred several times in the material.

(2:7) They’re segregating us all of the *time*. (LSAC).

### 2.1.5 The interplay of factors

The perspective taken in the present study is (i) that there are grammatical structures which have nearly equivalent propositional content and roughly the same communicative function, and (ii) that linguistic and non-linguistic factors influence the choice of variant. Rydén (1979:8) particularly emphasises the “intimate interplay” of such factors. Jacobson (1982:6), among others, is of the opinion that variation studies should not only aim at describing frequencies, but also “estimate the probability of different variants in new sentences resembling those of the corpus” by means of “variable rules”. Labov coined this term and used it in close adherence to Chomsky’s early generative grammar, in an attempt at explaining how such a model could account for different kinds of syntactic variability (Romaine 1984:414; Winford 1996:177; Bod 2003:106). D. Sankoff (1988:984) provides the following outline:

Whenever a choice among two (or more) discrete alternatives can be perceived as having been made in the course of linguistic performance, and where this choice may have been influenced by factors such as features in the phonological environment, the syntactic context, discursive function of the utterance, topic, style, interactional situation or personal or sociodemographic characteristics of the speaker or other participants, then it is appropriate to invoke the statistical notions and methods known […] as *variable rules*.

A variable rule is thus optional as opposed to ordinary syntactic rules, but generally the variation is not quite random since various factors “make the application of the rule more or less likely” (Paolillo 2002:33). One frequently used sta-

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17 Of course, if we think of language in probabilistic terms, there is no reason why fixed expressions should be any different from other areas, where absolute categories are exceptions rather than the norm.
Statistical method for analysing the interplay and for estimating the degree of influence of individual factors is referred to as “factor analysis” (ibid 7f, 32ff).

Some scholars, especially within sociolinguistics, have performed advanced factor analysis by means of a statistical computer program from the VARBRUL family\(^\text{18}\), developed by Pascal Rousseau and David Sankoff (see D. Sankoff 1988, Bod 2003:107). Tottie (1991), for instance, used VARBRUL in her study of negation in English speech and writing, which involved a number of syntactic and lexical factors influencing the choice between using a no-negation and a not-negation. Another example is Gries (2001), who used factor analysis to explore the interplay of linguistic and non-linguistic factors influencing the choice of variant in English transitive phrasal verbs (e.g. *to pick up the book* vs. *to pick the book up*).

The empirical analysis carried out in this study could be followed up by a factor analysis of the VARBRUL kind. However, here, the interplay of factors will only be presented in terms of the relative weight of the different correlations between factors and variants. Such information was obtained from the chi-square test used for estimating statistical significance of correlations (see further Sections 4.3.4 and 8.1). I will also present a few cases where two factors probably interact, so that the correlation with one factor is related to the correlation with another factor.

### 2.2 Non-linguistic factors: region and medium

Several non-linguistic factors (e.g. region, medium and style) can influence syntactic variation. An important issue in the discussion of variation is standard versus substandard language, especially since the variables investigated here are part of standard English. With a language as globally spread as English, it is difficult to clearly define standard English, but many people informally agree upon the existence of standard BrE and AmE varieties (cf. Quirk 1995:24). It is also possible to find references to (more or less formally defined) standard varieties of, for instance, Australian and New Zealand English (cf. Quirk 1995:24; Hundt 1999b; Blair & Collins 2001).

As Bauer (1994:3) remarks, “it seems to be widely accepted that a standard requires a certain amount of codification”. English spelling and grammar was first codified in Samuel Johnson’s dictionary from 1755 (Melchers & Shaw 2003:5). However, attempts at establishing language academies in Britain and America for “providing direction toward a standardized model and toward controlling language change” have not been successful (Kachru 1992:49). Still, widely consulted dictionaries, pronunciation guides, usage handbooks, descriptive grammars and teaching materials for EFL learners have served a purpose similar to the French and Swedish academies, for instance, since many people see them as authorities (Kachru 1992b:50, Bauer 1994:3). Interestingly, the concept of standard does not always correspond to frequency of use. For example,

\(^{18}\) The newest variable rule program, based on programs previously circulated by David Sankoff and others is called Goldvarb (http://www.york.ac.uk/depts/lang/webstuff/goldvarb/).
the “standard” British dialect, referred to as Received Pronunciation (RP), is only spoken by three to five per cent of the English population (Trudgill & Hannah 2002:9). The concept of standard English has been much debated in terms of power and attitude, and in association with models for the teaching of English (Kachru 1992a:8, 1992b:48ff). In the present study, we will not go into such discussions, but only concern ourselves with variation in standard English as it is described in the above-mentioned influential comprehensive reference grammars like Quirk et al (1985).

2.2.1 American, British and Australian English

From being an exclusive property of a few million people in the time of Shakespeare, English is today the most widely spread language in the world, not because of any intrinsic superiority, but rather because of extralinguistic factors (Kachru 1992a:10f; Quirk 1995:3f). As a natural consequence of its wide distribution, the language is characterised by extensive regional variation. Kachru (1985:12f) proposed a model of regional varieties of English consisting of three circles, the inner circle (countries where English is the dominant language, e.g. the U.S. and UK), the outer circle (former British colonies where English is a second, official language, e.g. India and Singapore) and the expanding circle (countries where English is taught as a foreign language, e.g. Sweden and the Netherlands). Studies of regional variation in English have largely concentrated on the two largest standard varieties from the inner circle: American English and British English, henceforth AmE and BrE (cf., for instance, Kachru 1992a:3).

Dictionaries and other literature on differences between AmE and BrE often give the impression that such differences are absolute (cf. Strevens 1978; Algeo 1988; Crystal 1995 and Modiano 1996). However, some authors, such as Görlich (1991:25) and Svartvik & Sager (1996:2), emphasise the fact that differences are questions of tendencies, frequencies and sometimes the level of formality. It is also important to remember that there is a great deal of variation within the varieties, in fact more than between them (Quirk 1995:7).

Differences between AmE and BrE are often described as mainly concerning phonetics, lexis and orthography. Grammatical differences are not very numerous and are often considered to be of little importance, since they seldom lead to complications of understanding (Quirk et al. 1985:19; Biber 1987:99; Algeo 1988:2; Trudgill & Hannah 2002:55; Melchers & Shaw 2003:21). Nevertheless, scholarly investigations have studied particular linguistic phenomena such as verb complementation (Mair 1990 and 1995), NP modification (Jucker 1992) and mandative subjunctives (Övergaard 1995; Hundt 1998a). Others take a more general approach (e.g. Strevens 1978; Johansson 1980; Algeo 1988; Trudgill & Hannah 2002 and Tottie 2002). This study goes slightly beyond the standard format, as it also comprises Australian English. The following list exemplifies some typical grammatical differences between AmE and BrE:
• the more frequent use of the modal auxiliary *shall* in BrE (Johansson 1980)
• the more frequent use of mandative subjunctives in AmE (Övergaard 1995; Hundt 1998a)
• the more frequent use of a bare infinitive (rather than a *to* infinitive) as complement of the verb *help* in American English (Mair 1995)
• the more frequent use of plural agreement with collective nouns in BrE (Levin 2001).
• the more frequent use of the definite article before words like *university* and hospital in prepositional phrases like *at the/university* in BrE (Tottie 2002)

Tottie (2002) in her recent comprehensive description of American English devotes some thirty pages to grammatical differences between BrE and AmE. Biber brings in a stylistic perspective, as illustrated by the following quote.

[…] American written genres are consistently more colloquial and involved than British written genres, while at the same time American written genres are consistently more nominal and jargony than British genres. (Biber 1988:201)

Lexis, pronunciation and spelling tend to be more dialectally consistent, with one form often predominating in BrE and another one in AmE (e.g. the use of *lift* in BrE and *elevator* in AmE, or the spelling *-our* in BrE vs. *-or* in AmE). With syntactic variation, the same form is often predominant in both varieties, whereas the alternative form (or forms) mainly occurs in one of them. One example is agreement with collective nouns, where singular agreement (*the family is*) is predominant in both BrE and AmE. Meanwhile, the alternative, plural agreement (*the family are*), is more frequent in BrE than in AmE (cf. Levin 2001).

Australian English (henceforth AusE) has only been recognised as an independent variety for a few decades (Peters 2001:163). Australia was populated mainly by people from the British Isles in successive waves of immigration. Consequently, BrE, especially dialects spoken in the South-East of England towards the end of the 18th century, constitutes the origin of AusE (Peters & Fee 1989:135, 143; Blair & Collins 2001b:1), even though today, AusE is not the same as BrE (Peters & Fee 1989:135, 143). AusE has developed on its own and has been influenced by AmE via military activity, tourism and media. Thus, present-day AusE is a mixture of AmE and BrE features (ibid 136, 146), which is particularly clear when it comes to spelling (Butler 2001:160). The same pattern is reflected in prepositional variation (Estling Vannestål 2001a).

AusE differs most from BrE and AmE in its pronunciation and vocabulary. According to Newbrook (2001:113), AusE has virtually the same syntactic norms as BrE. Some “informal” syntactic features are reported to be more readily accepted in AusE than in other standard varieties, e.g. contractions and *get* passives in writing (Peters 2001:168ff, 175). The dialect also contains some unique features, such as possessive pronouns in combination with *some* (e.g. *my some*), some shared with AmE, such as epistemic *have* (*got*) *to*, and some shared
with South-East Asian English, such as scope of negation in clauses with all and both (see further Section 3.2.1.1) (Newbrook 1992:15f; 2001:119ff, 128f).

The present study tests the validity of claims about regional variation in NPs with all, whole, both and half. It also looks for hitherto undetected differences. Finally, it seeks to find out whether AusE resembles BrE or AmE usage more with respect to the variables in focus. The results are presented in Section 6.1.

2.2.2 Spoken and written English

Biber, in his influential, multi-dimensional description of spoken and written English (1988:5f), notes that written language was long considered the “better” form, and the only one worthy of being studied19. Not until the late 19th century and the rise of phonetics as an independent branch of linguistics did speech become an accepted object of study among scholars such as Jacob Grimm, Henry Sweet, Ferdinand de Saussure and Leonard Bloomfield (ibid; Chafe 1994:46). From a historical-developmental point of view speech could easily be argued to be primary to writing, and linguists like Sapir and Bloomfield emphasised this aspect (Biber 1988:5f). Chafe (1994:41) regards the prototypical form of speech, ordinary conversation as “a baseline from which all other uses [of language] are deviations” (also cf. Halliday 1994:xxiii), even though many people tend to hold the traditional opinion of writing as a superior form of language. From a functional point of view, neither could be said to be primary: they are simply used for different functions (Biber 1988:7; Chafe 1994:45).

Very often, especially before the 1960s, the focus in studies of speech and writing has been on either spoken or written language, rather than on differences between them (Biber 1988:6, 47). One way of comparing the two media, or “modes” as Chafe (1994:41) prefers to call them, is to look at the very acts of speaking and writing. Chafe (1994:42ff), Röhr (1994:30ff) and Cornbleet & Carter (2001:74ff) exemplify a number of differences, such as:

(a) the evanescence of speech vs. the permanence of writing
(b) the differences in tempo, speech typically being produced at a higher rate of speed
(c) the typically private character of speech vs. the typically public character of writing
(d) the typical spontaneity of speech vs. the typical planning of writing
(e) the degree of interaction and co-operation, speech typically being characterised by the participation of more than one person
(f) the possibility of clarification in speech, usually lacking in writing

Of course, the relevance of these differences is also related to type or register of speech and writing (see further below). A written note on a fridge door is not particularly permanent, whereas a recorded political speech certainly is (Cornbleet & Carter 2001:81).

19 There are different ways of referring to the two physical properties of communication, e.g. “medium”, “channel” and “mode”. In this study, we will use “medium” to refer to speech vs. writing (Pettersson 1996:20).
Another way of comparing speech and writing is to find out how they differ in form. Such studies have frequently used dichotomies, such as “formal” vs. “informal”. Biber (1988:9ff) suggests using different continua (or “dimensions”) of variation, rather than absolute dichotomies. Spoken language tends to use a more informal, involved and interactive style (for instance through the use of many pronouns), while writing is generally more formal and less involved and interactive (for instance through the use of more passives).

A natural question arising is whether it is at all possible to define spoken and written language as two subsets of language in general, as there are so many different text types or registers within each medium. Biber (1988:24) shows that differences among different types of spoken or written text, respectively, are often just as great as differences between the two subsets. He concludes that no real spoken-written dimension actually exists, even though there are more and less “typical” or frequent/unmarked/characteristic forms of speech and writing, such as face-to-face conversation and informational exposition (ibid 37). The present study compares spoken and written English from a very coarse perspective, without distinguishing between different registers within them. The corpus material consists of what Biber refers to as “typical” speech (mainly face-to-face conversation) and writing (newspaper language, that is mainly informational exposition)\(^\text{20}\). The results are presented in Section 6.2.

### 2.3 Linguistic factors

That linguistic factors should influence syntactic variation is perhaps not surprising. Nevertheless, a great deal of such, sometimes quite subtle, patterning tends to go unnoticed when intuition is relied upon as the sole source of information. With computerised corpora and concordancing programs, linguistic patterns can become obvious to the naked eye more easily than before. Such observations have been made by, among others, Sinclair (1991:6f) and Biber et al (1998:5). Examples of studies that have reported on linguistic factors influencing variation are Jacobson (1975) on the placement of English adverbs, Gustafsson (1983) on English adverbials, Hargevik (1983) on the auxiliary need, Tottie (1991) on negation, Mair (1995) on complementation after the verb help, Biber et al (1998) on that-clauses, Lindquist (2000) on the comparison of disyllabic adjectives and Gries (2001) on transitive phrasal verbs.

These are the three most frequently investigated areas of linguistic factors:

- **lexis:** certain words, the presence of which favours one variant
- **semantics:** certain semantic qualities of the variable or something in its co-text favouring one variant
- **syntax:** certain syntactic features within the variable or in its co-text which favour one variant

Let us look at a few examples from the areas described above, starting with lexis. Some of the studies consulted do not provide sentences illustrating the

\(^{20}\) A problem with using newspaper text, however, is that parts of it consist of spoken language (in the form of interviews) written down.
phenomena described. Therefore, the exemplified sentences for this part of the presentation are selected from my corpus material.

With collective nouns, the distribution of singular and plural agreement of verbs and pronouns is related to the particular noun us. Thus plural agreement is more frequent with, for instance, the word family, as in (2:8), than with the word audience, as in (2:9), where singular concord is used (Levin 2001:131).

(2:8)  The family hid their icons behind other pictures during the most difficult years. (IND95)

(2:9)  The audience, mostly women, got what it wanted, to a degree. (NYT95)

Similarly, Tottie (1991:250) in her study of not vs. no-negation found that certain high-frequency lexical verbs, viz. give, know, make and the main verb do, as in (2:10), were used much more often with no-negation than other lexical verbs, as exemplified by (2:11) where another lexical verb, conceal, is used.

(2:10)  Mr Chirac, unlike his Socialist opponent, Lionel Jospin, made no promise to shorten the presidential term.. (IND95)

(2:11)  The company did not conceal any salary, bonus or any other benefit to which Ms. Potter was entitled. (IND95)

The semantic factor type can be either internal to the variable itself or concern external aspects, mainly other elements within the clause or sentence in which the variable occurs. An example of an internal semantic factor is animacy in collective nouns. Levin (2001:128) found that plural agreement is more frequent in nouns with animate reference, as in (2:12), than in inanimate nouns, as in (2:13), if words like group and majority are excluded.

(2:12)  The crowd, smartly dressed, watch eagerly as two Polish bands perform. (IND95)

(2:13)  This expanding army of barely potable frilly-drinks makes fermented apple cider taste, by contrast, like '75 Grange. (SMH95)

External semantic factors can be exemplified by a study of prepositional variation (cf. Estling Vannestål 2001:84). Here it was discovered that in the choice between outside and outside of, outside of was more frequent if the noun in the following NP was abstract, as in (2:14), than when it was concrete, as in (2:15), where simple outside is used.

(2:14)  Luckily, the UK’s 23 million volunteers do not appear to be put off by the lack of participation, outside of politics, by the country’s political leaders. (IND95)

(2:15)  Outside the building Greenpeace demonstrators massed, rolling out a dummy bomb. (IND95)
Just like semantic factors, syntactic ones can be divided into internal or external factors. Variable-internal syntactic factors relate to elements within the variable and can be illustrated by another example concerning prepositional variation (Estling Vannestål 2001:81f). In the choice between the two expressions *out X window/door* and *out of X window/door*, the simple *out* variant turned out to be more frequent when the determiner in the prepositional phrase was the definite article, as, in (2:16), rather than a demonstrative or possessive determiner, as in (2:17), where the complex preposition is used.

(2:16) As it sped past the group, someone leaned *out the window* with a .45-caliber semiautomatic pistol and opened fire into the group. (NYT95)

(2:17) The two convicts, both infected with HIV and described as dangerous, had been driving around the town, tossing banknotes *out of their car window*, before they were seized. (NYT95)

An external syntactic factor can concern (i) another element in the clause or sentence in which the variable occurs or (ii) a relation between the variable and the clause or sentence. One example of an external syntactic factor concerns pre-vs. post-auxiliary placement of the adverbial *probably*. Jacobson (1989:384) discovered that the structure of the NP in subject position influenced the variation in that pre-auxiliary position was more frequent when the subject was a pronoun, as in (2:18), than when it was a full NP, as in (2:19).

(2:18) But the chief thing that it probably has taught me is that we must deal not only with the supply of drugs but with the demand for drugs. (NYT95)

(2:19) The new magazine has probably received more prepublication coverage than most magazines receive in their lifetimes. (NYT95)

A large part of the present study will be devoted to linguistic factors influencing the variation between two or more syntactic variants. The results are presented in Chapter 7.

### 2.4 Language variation and change

Every language spoken by human beings, its pronunciation, lexicon and grammar, has been changing continuously since its birth, and language change and variation go hand in hand (Bauer 1994:7, 11). As Coveney (1996:47) puts it, “since it seems inconceivable that a grammatical change could […] run its course overnight, from innovation to completion, it must be concluded that all change is reflected in synchronic variation between two or more items or structures.” The work of Labov and other sociolinguists has shown that we can learn about language change by relating synchronic variation to, for instance, the age of speakers (Bauer 1994:11ff) or region and media (Mair 1998:155). The latter perspective was the starting-point for the Freiburg project, where Christian
Mair and his colleagues created two updated “clones” of the well-known British and American LOB and Brown corpora (FLOB and Frown) with the objective of finding out how synchronic regional and stylistic variation and diachronic change interact (Mair 1998:140f, 155). One interesting aspect discussed by Mair is that there are differences in the speed of change in different media, genres and registers. Newspapers, for instance, belong to the “fast genres”, where changes in a language are likely to be reflected before they are reflected in, for instance, academic prose (ibid 155).

One area of linguistics concerned with language change is grammaticalisation theory, where linguistic items go through a change from lexical to grammatical form (function words, clitics and affixes) or from less grammatical to more grammatical. In the functionally motivated grammaticalisation process (Hopper & Traugott 2003:2ff), syntactic variation is an important ingredient. The co-existence of syntactic structures (referred to as “layering”) is one of the identifying criteria for grammaticalisation (Hopper 1991:22f). Hopper (ibid 23) writes:

(...) when a form or set of forms emerges in a functional domain [e.g. tense/aspect/modality], it does not immediately (and may never) replace an already existing set of functionally equivalent forms, but rather the two sets of forms co-exist. They may be specialized for particular lexical items, particular classes of constructions, or sociolinguistic registers; they may have slightly different meanings, or simply be recognized as ‘stylistic’ alternatives.

One standard example of layering is the two forms going to and gonna representing different stages of a grammaticalisation process (from the previous and still existing function as an indicator of direction + purpose to its present function as a tense marker) and also co-existing with other markers of future, such as will and shall. The analysis in the present study is little concerned with language change, hence the brevity of this section. However, Section 3.3.1 will give a diachronic background to the establishment of the variants in the variables and present a hypothesis concerning the grammaticalisation of half.

2.5 Summary

This chapter has tried to establish the frame within which the present study is conducted. It first presented some important problems within variation research. We saw that the most extensive theoretical discussion has concerned what should constitute the meaning constant. Should it be “the same propositional content”, “the same pragmatic function” or something else? The whole idea of grammatical synonymy has been questioned by Bolinger and Langacker, among others. My own starting-point for defining syntactic variables in the present study is their presentation as such in the grammatical literature (esp. Quirk et al 1985). This is taken as an indication that they are “nearly equivalent in meaning” and have “roughly the same communicative function”, which is Biber et al’s (1999) definition of a syntactic variable. The variants of a few of the variables occurring in the study have been claimed by some people to be semantically
different. This possibility will be further discussed in Chapters 5–7. Two phenomena complicate the picture further: knock-out factors and fixed expressions. The first part of the chapter ended with a brief note on the interplay between different factors.

Section 2.2, on non-linguistic factors influencing the variation, described regional variation in English and gave a brief outline of research into spoken vs. written English. In Section 2.3, we turned to linguistic factors and saw some examples from three areas: lexis, semantics and syntax. Finally, Section 2.4 brought up the correlation between language variation and change. The next chapter will be concerned with the part of English grammar that is in focus in this study of syntactic variation: the English noun phrase and especially the four quantifiers all, whole, both and half.
3. English quantified noun phrases

In this chapter we will deal with English NPs including the quantifiers *all*, *whole*, *both* and *half*. The chapter starts with an outline of the English noun phrase (Section 3.1) and goes on to briefly discuss research into quantification in some formal linguistic theories (Section 3.2). Section 3.3 goes through a number of issues relating to the four English quantifiers in focus, starting with a historical background before exploring the words syntactically and semantically.

Although this presentation is mainly descriptive, some claims will be questioned and also some new hypotheses will be suggested. The information was, to a large extent, accessed from the three most recent comprehensive reference grammars, especially for the section on the English noun phrase. *A Comprehensive Grammar of the English Language* (Quirk et al 1985) is the most widely consulted descriptive grammar in recent years. The *Longman Grammar of Spoken and Written English* (Biber et al 1999) is a corpus-based grammar which in its framework mainly follows Quirk et al (1985). This grammar takes frequencies in actual texts into account and also brings up variation across registers wherever such information is relevant. The most recent one, *The Cambridge Grammar of English* (Huddleston & Pullum 2002), takes a somewhat more theoretical perspective than the other two, especially using ideas from generative linguistics. I will also, where appropriate, briefly refer to treatments in more theoretical branches of linguistics.

### 3.1 The English noun phrase

In his analysis of postmodifying clauses in the English noun phrase, de Haan concisely defines the English noun phrase in the following way:

> A noun phrase is a string of words which, syntactically, is a constituent with an internal structure containing a determiner, a modifier and a head. The head (the only obligatory element in the structure of the noun phrase) may be a noun or a noun equivalent. Semantically, a noun phrase can be used as a referring expression (de Haan 1989:8).

Although subject to disagreement, most linguists would probably accept this definition as a useful starting point. One bone of contention concerns headedness, where many linguists within the generative school argue that determiners rather
than nouns are the true heads of the kind of phrases usually referred to as noun phrases (see Section 3.1.3).

The early descriptive grammarians paid rather little attention to units larger than the word, such as the noun phrase. Instead they focused on individual lexical items and, if mentioning word groups at all, defined relationships between their different constituents rather loosely (de Haan 1987:8, 24). The more recent comprehensive reference grammars analyse the syntax of the English noun phrase in greater detail (see Section 3.1.1).

According to Biber et al (1999:232), noun phrases can be considered to play the most important parts in language because of their referential specification, i.e. they “specify who and what the text is about”. This is easily illustrated if we (i) leave out all noun phrases from a text, as in (3:1), and (ii) leave out all other elements except the noun phrases, as in (3:2). The text is the introductory paragraph of this book.

(3:1) [...] like [...] contains [...] claim that [...] does not exist (see further [...] but still [...] is how [...] is presented in [...] 

(3:2) English [...] many other languages [...] a large number of seemingly synonymous grammatical structures. Some linguists [...] grammatical synonymy [...] Section 2.1.2 [...] this [...] language [...] many school and reference grammars.

It is only in the second case that some of the content would be at least possible to grasp. Also, the NP is the phrase type that can take on the largest number of different grammatical functions (Quirk et al 1985:60ff, 657) (see Section 3.1.2).

### 3.1.1 The parts of the NP

In Quirk et al (1985:1238f), the internal structure of a prototypical English noun phrase is defined as a cluster of words with a “head”, typically consisting of a common noun, preceded by one or more “determiners” (also called determinatives) and preceded and/or followed by one or more “modifiers”. Huddleston & Pullum (2002:326) collectively denote all elements that are not the head of the NP as “NP dependents”. Using one of two structuralist approaches to the description of noun phrase, the slot-and-filler model21 (cf. de Haan 1987:11f), a typical NP is illustrated in Figure 3.1.

---

21 In the slot-and-filler model, all elements in the noun phrase are assumed to be on the same level. It is used in a large number of linguistic works within different traditions, e.g. Quirk et al (1985), some of which are far from structuralism and its reluctance to take semantic aspects of grammar into account (see, for instance, Givón 1993:248ff). Another structuralist approach is the binary analysis, used by, for instance, N. Francis (1958:298ff) and Fries (1967:264ff). Here, the noun phrase (just like the clause) is seen as a two-part group (two “immediate constituents”) and further analysis is carried out in terms of different sublevels.
determiner     premodifier      head          postmodifier  
this           exciting       book          by Ernest Hemingway  

Figure 3.1. An example of a typical English noun phrase

Gleason (1965:409) distinguishes six possible slots before the NP head, noting that all the modifier slots are rarely filled at the same time (Figure 3.2).

<table>
<thead>
<tr>
<th>N – 6</th>
<th>N – 5</th>
<th>N – 4</th>
<th>N – 3</th>
<th>N – 2</th>
<th>N – 1</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>all</td>
<td>the</td>
<td>three</td>
<td>other</td>
<td>new</td>
<td>school</td>
<td>houses</td>
</tr>
</tbody>
</table>

Figure 3.2. Slot-and-filler analysis of a noun phrase (Gleason 1965:409)

In a model used by de Haan (1989:31), the determiner and premodifier slots can each be filled with more than one item, and he remarks that is not quite clear how many possible determiner or modifier slots there really are. He further distinguishes an optional introductory “limiter slot” (see Figure 3.3), which is sometimes filled with a word or phrase modifying the determiner, typically an approximating adverb, as in nearly all the children. This sentence element has traditionally been seen as belonging to the noun phrase (de Haan 1989:32, cf. also Börjars 1998:15).

<table>
<thead>
<tr>
<th>limiter</th>
<th>determiner</th>
<th>premodifier</th>
<th>head</th>
<th>postmodifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>nearly</td>
<td>all</td>
<td>the</td>
<td>children</td>
<td>–</td>
</tr>
</tbody>
</table>

Figure 3.3. Alternative slot-and-filler model (based on de Haan 1989:31)

We will return to limiters in the chapter on linguistic factors (see Section 7.4.3) but now look in more detail at the different parts of the NP.

3.1.1.1 The head

Some of the linguistic factors accounted for in Chapter 7 concern syntactic and semantic aspects of the head of the noun phrase. This is the only obligatory element, and it is also the part of the NP which governs the form of the finite verb in a finite clause. Although the head most frequently appears as a count or mass noun, it can also consist of other word types, e.g. a proper noun, a pronoun22 or an adjective (Quirk et al 1985:62ff, 288, 1238; Huddleston & Pullum 2002:328ff). Corpus research has shown that different head types exhibit different usage patterns. Pronoun heads are very frequent in conversation, whereas more complex noun phrases mainly occur in written registers (Biber et al 1999:231). Furthermore, nouns as heads are in the majority in object and predicative positions, while pronoun heads are particularly frequent in subject position. This has to do with thematic structure, since pronouns are often used as themes of clauses.

22 Huddleston & Pullum (2002:327) treat pronouns, which have traditionally formed a grammatical class of their own, as a subclass of nouns, because they share several qualities with common and proper nouns.
– for given information – whereas more complex noun phrases are typically used to provide new information (Biber et al 1999:235f).

In line with the generative tradition, Huddleston & Pullum (2002:329) distinguish an intermediate rank between nouns and noun phrases, and refer to this rank as “nominals”. A nominal could be described as a head plus modifiers but without determiners (e.g. *old man* in the *old man*). In NPs where there is no modifier (such as *the man*), the noun coincides with the nominal. In some other cases, the nominal coincides with the full noun phrase, as in “bare NPs” (which are contrasted to “determined NPs”), where the head is an indefinite plural count noun, as in (3:3) or a mass noun, as in (3:4)\(^\text{23}\).

\[(3:3)\] *Bilingual teachers* need to become part of the total school community – coaching a sport, being a class advisor. (NYT95)

\[(3:4)\] And it sends a clear message to art complexes that *jazz music* is important [...] (NYT95)

Another concept used by Huddleston & Pullum (2002:332) is “fused-head” constructions, which “are those where the head is realised jointly with a dependent function”, usually a determiner or predeterminer, as in *Many would agree with you on that point*. Fused-head constructions also occur with *all, both and half* (see Section 3.3.4.1).

### 3.1.1.2 Determiners

Even though the head is the only obligatory, and perhaps the most important, part of the noun phrase, the determiner has a key function, being the element that makes a full NP out of a nominal (Huddleston & Pullum 2002:354). A determiner can be realised by a definite or indefinite article, a pronoun, a numeral or a specifying genitive noun phrase\(^\text{24}\) (Quirk et al 1985:253ff). Huddleston & Pullum use the term “determinatives” as a unifying category for articles and pronouns that can take on the determiner function, observing that most of them can be used in other functions as well.

The group of determiners can be further divided syntactically, according to their relative positions before the NP head, into “predeterminers” (e.g. *all, both, double, such*), “central determiners” (e.g. *a, the, some*) and “postdeterminers” (e.g. numerals, *few, many*). There is often more than one determiner in a noun phrase, but predeterminers are generally mutually exclusive, even though there are a few exceptions, such as *half such* (Quirk et al 1985:257f; Huddleston & Pullum 2002:436). From the point of view of the present study, determiners is a very interesting group of elements in the NP, since in most of the variables the quantifier has this function (see 3.3.2.1 and 3.3.2.2).

Semantically, determiners are used to specify (in)definiteness and reference of the NP head (Quirk et al 1985:253; Huddleston & Pullum 2002:355) (see Sec-

\(^{23}\) There are also some exceptions, where singular count nouns occur in bare NPs, such as *chairman* in [...] *Mr. Sheaff was elected chairman in 1960* (NYT95).

\(^{24}\) A classifying genitive (e.g. *girls’ school*) has a modifying rather than a determining function (cf. Section 7.4.1).
tion 3.1.4). Furthermore, all determiners have more specialised semantic functions, such as various kinds of quantification.

### 3.1.1.3 Modifiers and complementation

The head of a noun phrase can be premodified by, for instance, an adjective, as in (3:5), a noun\(^{25}\), as in (3:6), or a genitive noun phrase, as in (3:7) (Quirk et al 1985:1239, 1321ff).

(3:5) ‘By Friday, all the temporary workers will be gone’, he said. (NYT95)

(3:6) […] in both of the Dallas losses […] Aikman has been hurt early and did not return. (NYT95)

(3:7) Half the hospital’s patients are covered by Medicaid […] (NYT95)

An NP head can also be postmodified by, for instance, a prepositional phrase, as in (3:8) or a clause (finite\(^{26}\), non-finite or verbless), as in (3:9) (Quirk et al 1985:1239, 1244ff).

(3:8) Partly because of all the activity in Bangalore, India’s tiny software industry is growing rapidly. (NYT95)

(3:9) But all of the men, who have been called the Jenny Craig Eight, are saying that they were fired, denied promotion or given unfavorable assignments […] (NYT95)

Semantically, modifiers are used either to restrict the reference of the head or to add extra information, thus having a function similar to that of adverbials in clauses (Quirk et al 1985:65). A problematic distinction is the one between NP modification and noun complementation, recently examined by Bowen (2003). Quirk et al (1985:66) define the general difference between complementation and modification (not specifically for nouns) as follows:

> Although complementing elements may be optional, such elements differ semantically from other optional elements (eg most modifiers) in that the omission of complementation […] implies that some element of meaning in a preceding word is ‘unsatisfied’, and therefore has to be provided through context.

Huddleston & Pullum (2002:436) point out, however, that the optional/obligatory distinction does not hold for NPs. Quirk et al (ibid) admit that the borderline between complements and modifiers is fuzzy and a matter of degree. Examples of NP complementation in Bowen (2003:1) are the journey to Rome

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25 This could also be regarded as an unmodified compound noun (see further below).

26 A finite relative clause can be either restrictive or non-restrictive, i.e. either necessary for the identification of a referent or just adding extra information about the referent (Quirk et al 1985:1239).
and the decision to abandon the project. Modification is one of the linguistic factors analysed in this study (see 7.4.1). To avoid dealing with the fuzziness of the two categories, and since I was not interested in the semantic aspects of complementation/modification, all elements not being determiners, determiner modifiers (e.g. nearly and almost) or heads will be regarded as modifiers.

Another problematic case is that of NPs with two (or more) common case nouns. Such an NP can either be classified as an unmodified compound noun or as a premodified head. Traditionally, non-syntactic criteria, such as stress, orthography and meaning have been used to distinguish between the two (cf. Quirk et al 1985:1330ff; Huddleston & Pullum 2002:451). Since these tests are anything but watertight, Huddleston and Pullum (ibid) suggest that the distinction between compounds and premodified nouns be based on whether “the component parts can enter separately into relations of coordination and modification”. Blackcurrant sorbet, for instance, was classified as a premodified noun, since it can be coordinated: a blackcurrant and a passion-fruit sorbet (Huddleston & Pullum 2002:449). An example of a compound is backache, which cannot be co-ordinated (*back and toothache). The borderline is still fuzzy, and “the division between a noun compound and a sequence of noun modifier + noun head is in actuality a cline” (Biber et al 1999:589f). In my analysis, all cases of two juxtaposed nouns were classified as involving premodification. Again, the reason for this decision is the fuzziness of categorisation and the fact that my main interest is in the syntactic complexity of the noun phrases (see 7.4.1).

3.1.2 The syntactic functions of the NP

As described above, the NP is the most flexible phrase type as far as different syntactic functions are concerned. It is typically used in one of the clausal functions of subject, object or predicative. However, it can also occur in many other functions (most of them being part of other clausal elements), as indicated by the following examples, accounted for by Huddleston & Pullum (2002:327):

- subject-determiner in a noun phrase: I like Sue’s analysis of the passive construction.
- adjunct in a clause: Fred arrived the day before yesterday.
- modifier in an adjective phrase: The nail was three inches long.
- modifier in an adverb phrase: Fred arrived a whole day later.
- modifier in a prepositional phrase: The wreck was discovered a mile under the sea.
- supplement: I finally met his wife, a distinguished anthropologist.
- modifier in a noun phrase: She was writing a treatise on the opera Carmen.
- vocative: Elizabeth, your taxi is here.

These functions will be analysed in relation to the quantified NPs in focus in Section 7.5.
3.1.3 NP or DP?

Many generativists (in particular) have argued that “determiner phrase” (DP) is a more appropriate label for what is generally referred to as “noun phrase” (NP) (Abney 1987; Payne 1994:2853f). It is remarked by de Haan (1989:24) that this is one of the few areas within the generative framework where the noun phrase has been discussed in its own right, in terms of its internal structure, rather than in connection with certain more complex clausal phenomena, such as NP movement.

Until the mid-eighties, few people had questioned the noun as the typical head of a noun phrase, except in noun-less NPs where a pronoun could have this function. Lyons (1977:464) is an exception, writing that determiners “despite their conventional treatment as modifiers of the noun with which they occur, may often be regarded, from a syntactic perspective, as heads rather than modifiers”. The determiner head thus takes a nominal (cf. Section 3.1.1.1) as its complement. One argument for the hypothesis is that many determiners (e.g. some and this) can stand on their own without a noun in noun phrases. Another is that many important NP properties can be located in the determiner (e.g. negation and definiteness). The DP hypothesis is the standard view, for instance, within the Government & Binding theory and Minimalist theory (Börjars 1998:3, 119)

There have also been counter-arguments against the DP hypothesis, for instance, within Head-driven Phrase Structure Grammar (HPSG) (Börjars (1998:130). The recent Cambridge grammar, though much influenced by generative linguistics, refutes the DP-hypothesis for the following two reasons:

Firstly, it is the noun (or nominal) which defines the selectional properties of the phrase. For example, a verb like assassinate selects a human NP as object […], whereas there is no verb in English which selects an object phrase determined by the as opposed to no. This is because the basic semantic function of the determiner is to indicate whether the phrase is definite or indefinite […], and this is independent of the role the phrase otherwise plays in the larger construction in which it occurs. The second reason […] is that while there is a wide range of ordinary NPs that contain no determiner28 […], NPs that do not have a noun as ultimate head (NPs like both, several, the largest) are highly restricted in their form and use (Huddleston & Pullum 2002:357f).

Without taking a stand as to whether NP or DP is the best alternative for classification, the traditional and more theory-neutral term NP will be used throughout this study.

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27 Moreover, R. Hudson (1990:271f) advocates the DP perspective in his Word Grammar theory.
28 What Huddleston & Pullum think of here are so-called bare NPs with plural or mass nouns (as in I love cats/coffee).
3.1.4 Some semantic concepts pertaining to the NP

“Reference” and “definiteness” are both concepts central to descriptions of semantic aspects of the noun phrase. The concepts are complicated, and definiteness is difficult to distinguish from, for instance, specificity, one of the two basic types of reference.

3.1.4.1 Reference

Reference is defined by Saeed (1997:12) as the phenomenon of linguistic expressions to “hook on to” entities around us. Similarly, Lyons defines it as the relationship “between an expression and what the expression stands for on particular occasions of its utterance” (Lyons 1977:174). Language contains both referring (or “referential” as Huddleston & Pullum call them) expressions (mainly noun phrases), which “enable the hearer, in the context in which the utterance is made, to pick out the actual referent from the class of potential referents” (Saeed 1997:12), and non-referring (or “non-referential”) expressions, which do not identify particular entities in the real world, e.g. conjunctions, adjectives and verbs (Saeed 1997:12, Huddleston & Pullum 2002:399f). According to Huddleston & Pullum (2002:400ff), however, not all noun phrases are referential expressions. An indefinite noun phrase, as in (3:10), is regarded as non-referential, since the noun phrase does not refer to a particular entity.

(3:10) Did anyone make you a conditional offer that you refused? (NYT95)

“Referents” are the entities referred to, and these are usually defined with respect to the context (“variable” referents, e.g. the girl), but can also be context-independent (“constant” referents, e.g. the Eiffel Tower29) (Saeed 1997:26). The most prototypical cases of reference concern concrete singular count nouns in definite noun phrases and proper names (Chesterman 1991:188).

An important distinction is that between “specificity” or “specificness” on the one hand and “genericity” or “genericness” on the other. When using specific reference, the speaker typically has a particular referent or referents in mind, while generic reference refers in a more general way, typically to a whole class or species (Lyons 1977:178). Besides the “speaker-having-a-certain-referent-in-mind” definition, there is another way of defining specificity, often used within logic and formal semantics in relation to quantification, which has to do with “scope” of reference. Sentences such as (3:11) are ambiguous between (i) a “wide/higher scope” reading, where someone refers to a specific person, the same for everyone, i.e. a specific reading, and (ii) a “narrow/ lower scope” reading, where, for everyone, there is a person whom he/she loves, not the same for everyone, i.e. a non-specific reading30 (Croft 1983:25; Lyons 1977:189, Hawkins 1978:203f).

29 Constant (or “uniquely referring”) referents tend to be spelled with capital letters (i.e. treated as proper names) (Lyons 1977:181). Note, however, that even “constant” NPs may have different referents (e.g. the Eiffel Tower referring to a plastic replica).

30 Huddleston & Pullum (2002:405) prefer to relate scope to referentiality, rather than to specificity. They regard the wide scope interpretation as referential and the narrow scope interpretation as non-referential and “NP-bound.”
(3:11) Everyone loves someone. (Lyons 1977:189)

Another distinction between “distributive” and “collective” reference can be made, the former focusing on individual members of a group, as in 3:12a, and the latter focusing on the collective, as in 3:12b. (Lyons 1977:178):

(3:12) Those books cost £5.

(3:12a) ‘Each of the books costs £5.’

(3:12b) ‘The books cost £5 together.’

Huddleston (1984:255) suggests that the concept of reference be used about whole sentences rather than about noun phrases, since “whether an NP is interpreted as specific or not depends in general on properties of the sentence containing it rather than being predictable from the form of the NP itself”. An interesting parallel can be drawn with French, where reference can sometimes be expressed in the verb phrase rather than in the noun phrase. There, a sentence including a noun phrase which is ambiguous between a specific and a non-specific reading can be disambiguated by choosing either the indicative or the subjunctive form of the predicate verb. The sentence in (3:13) could be translated either into (3:13a) or into (3:13b) (cf. Grevisse 1993:1592).

(3:13) We are looking for a white cat.

(3:13a) On cherche un chat qui est blanc. (indicative, specific reference)

(3:13b) On cherche un chat qui soit blanc. (subjunctive, non-specific reference)

We will return to the phenomenon of reference in Section 3.3.4.2 below.

3.1.4.2 Definiteness
In his investigation of definiteness, Chesterman (1991:10) writes that, traditionally, a distinction has been made between “definite” and “indefinite” reference. The former has a referent that the listener is supposed to be able to identify, whereas this is not the case with the latter. Definiteness has also been explored, especially within formal semantics, from Bertrand Russell’s “uniqueness condition” perspective, i.e. that a definite NP prototypically refers to something unique. Russell’s proposal has mainly been used about singular noun phrases, such as the The King of France, since it is “not so easily applicable to mass nouns and plurals” (Chesterman 1991:11; see also von Heusinger 1997:11).

In English and many other languages, noun phrases are defined syntactically as definite if, besides a head noun, they comprise a definite article, a demonstrative or possessive determiner, a specifying genitive or a quantifier such as both. A definite NP can also lack such a determinative element, if the headword is a proper name or a personal or demonstrative pronoun (Huddleston 1984:253). In some languages, such as Swedish, definiteness is often marked by means of
an inflectional ending added to the noun rather than by a preceding determiner. Hellberg (1992:36) argues that definiteness should always be ascribed to the whole noun phrase in a particular context, even though particular words (articles and pronouns) are sometimes described in terms of intrinsic (in)definiteness (cf. Chesterman 1991 and see Section 3.3.3.1).

If a definite noun phrase is used, it means that the information given in the NP is enough to identify its referent (Huddleston 1984:249f). Definite noun phrases are therefore often called “definite descriptions”, a term coined by Russell who showed that referents can be identified not only from names but also from descriptions, provided these are detailed enough. Previously, reference by naming had been considered essential to language by many philosophers (Lyons 1977:180; von Heusinger 1997:10). von Heusinger (1997:8f) points to the following four different uses of definite descriptions (see Footnotes 32 to 34 for alternative terminology):

(a) “anaphorical linkage” (when the NP has a direct connection to something that has been mentioned in the discourse context, e.g. *Once upon a time there was a king ... and the king*)

(b) “relational dependency” (when the NP is connected indirectly (via an association) to something else mentioned in the discourse, e.g. *I read a book ... the author*)

(c) “situational salience” (when the NP is used because the situation or non-linguistic context gives enough information to identify the referent, e.g. *The boat is leaking, uttered by a person sitting in a leaking boat*)

(d) “uniques” (where only one referent is possible, e.g. *the first man on the moon*).

Basing his argumentation on work by David Lewis and members of the Prague School, among others, von Heusinger (1997:15) advocates a perspective in which all these different categories come together under a concept of “salience”, where “each context can be associated with an ordering among the elements of subsets of the domain of discourse. The definite NP *the F* denotes the most salient F according to the situation”.

Definiteness will be further discussed with respect to the semantic classification of *all, whole, both and half in Section 3.3.3.1, but let us first look briefly at quantifiers and quantification in a few theoretical branches of linguistics.

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[31] Chesterman (1991:52f) provides two more uses of definite descriptions: (i) non-referential use (as in *John was the chairman*) and (ii) generic use (as in *The horse is a useful animal*).


[33] Chesterman (1991:52) distinguishes between “immediate-situation” use (as in *Pass me the bucket, please*) and “larger-situation” use (as in *Let’s go to the pub*).

[34] This is what Quirk et al (1985:270) refer to as “logical use” of the definite article (*the first, the only, the best etc.*).
3.2 Quantifiers and quantification

As pointed out by Kennedy (1987:265), “one of the important things we do with language is to measure or estimate quantity”, hence the interest in quantification in both theoretical and applied branches of linguistics. The words analysed in the present study (all, whole, both and half) are often termed “quantifiers” in the literature. Examples of other English quantifiers are double, twice, each, every, any, some and all numerals. The class of quantifier expressions in English is thus not a uniform one, neither syntactically nor semantically, and there is no consensus among linguists as to what words belong to the class (Lehrer 1987:97). There is, for instance, “no one-to-one relation between them and the syntactic category of determinatives [i.e. determiners]” (ibid) since there are other word classes that can express quantification as well: adverbs (e.g. always, very), adjectives (e.g. whole, numerous) and nouns (e.g. a lot, a number) (Huddleston & Pullum 2002:358). Kennedy (1987:275) even suggests that “quantification is not expressed mainly by numbers and grammatical quantifiers” but more frequently by lexical means. Culicover (1982:90) draws the following conclusion: “it may be that quantifier is not a true syntactic category, simply a traditional informal one”. Similarly, Huddleston & Pullum (2002:358) emphasise that “quantification” and “quantifier” are indeed semantic terms.

3.2.1 Quantification in theoretical linguistics

3.2.1.1 Formal semantics
Within logic and formal semantics, quantification has long been a major area of interest. ALL, often called “the universal quantifier” (e.g. van Eijck 1994:3423), is one of the central concepts of logic, where it is analysed in relation to negation (NO) and existential quantification (SOME), as in the following examples presented by Huddleston & Pullum (2002:359, 364):

(3:14) [All of the meat] was fresh. ⇒ [None of the meat] wasn’t fresh.

(3:15) [Some of the meat] was fresh. ⇒ [Not all of the meat] wasn’t fresh.

Issues concerning quantification within logic and formal semantics have mainly focused on complicated phenomena such as scalar implicatures (e.g. Some of the meat was fresh ⇒ Not all of the meat was fresh) and inferencing (Aristotles’ famous syllogism: All men are mortal – Socrates is a man – Therefore, Socrates must be mortal etc.) (see e.g. Aldridge 1982:3ff; van Eijck 1994:3423). In “generalized quantifier theory”, a sub-theory within formal semantics, whole noun phrases are referred to as “quantifiers” (see, e.g. Barwise & Cooper 1981). This theory has been useful for the clarification of a number of complicated linguistic phenomena, such as explaining why only certain types of noun phrases can occur in existential there-clauses or in combination with “negative polarity

35 Within other branches of linguistics, the term “quantifier” is often used to refer to linguistic manifestations rather than to the abstract concept.
items” (e.g. any and ever) (Bach 1989:56ff, see also Barwise & Cooper 1981). Unfortunately, since it usually does not look into variation, none of this research is of much relevance to the present study. Moreover, only a few of all quantifiers have been examined extensively (esp. all, every, some, no), while “non-standard quantifiers” such as half have generally been disregarded (van Eijck 1994:3423).

Still, one interesting area, also discussed within generative grammar, is quantifier scope (Carden 1976:17ff; Croft 1983:27;), which we touched upon in Section 3.1.4.1 (on reference). Quantifier scope is often analysed in relation to negation, which is involved in the linguistic factor presented in Section 7.4.3. Quantifier scope is further involved in patterns of regional variation, even though this variation concerns meaning rather than form. Consider the following sentence (from Newbrook 1992:16):

(3:16) All the students didn’t enrol.

From a logical point of view, there are two possible interpretations of (3:16), either (3:16a), where the verb is not within the scope of the negation, or (3:16b), where it is.

(3:16a) Not all of the students enrolled. [only some of them]

(3:16b) None of the students enrolled.

Tottie (1991:4) remarks that the second interpretation is extremely rare in natural language. Newbrook (1992:15ff) observes a regional difference in interpretation. In standard British English, a sentence such as (3:16) would unambiguously be interpreted as in (3:16a). In elicitation tests, however, he found that many young speakers of Australian English and especially South-East Asian speakers, interpreted it as in (3:16b). Many American informants found the sentence ambiguous between the two readings. He further emphasises that in spoken language intonation plays an important role in this case.

3.2.1.2 Cognitive linguistics

Another linguistic branch that has taken an interest in quantification is cognitive linguistics. Within cognitive semantics, all is again a central concept, called a “semantic primitive” (Wierzbicka 1996:47). In Langacker’s cognitive grammar, quantification is realised by the number of the head and by quantifiers. Quantifiers can be absolute or relative. The former (e.g. many, five, much) only say something about the size of a particular instance, whereas the latter (e.g. all, some, no) also have a “grounding” function (Langacker 1991a:96ff). Grounding is the establishment in the nominal of links to reality, related to the speaker, the hearer, their interaction and the immediate situation. A grounding marker can have either of two different foci: definiteness (e.g. the definite article) or quantification (e.g. all). A subgroup of the latter, “proportional quantifiers” (e.g. all, both, most and some) “identify their referent as some proportion of the reference mass [i.e. all possible referents]” (Langacker 1999:284). In the case of all, the boundaries of the referent and the imagined reference mass are the same: “the restrictive nature of the subpart is vacuous […] the degree of restriction just
happens to be zero” (Langacker, 1991b: 112f). See Figure 3.4 for an illustration of Langacker’s ideas.

Figure 3.4. Referents in relation to a reference mass (based on Langacker 1999:255)

All/both marks that the instantiation in the actual usage event and the reference mass (i.e. all possible referents), have the same “boundaries” (maximal extension). In contrast, most marks that these boundaries are close to each other and some marks that the boundaries are relatively far away from each other. We will return to Langacker and variation between all (of) in Section 3.3.4.1 below.

3.1.2.3 Generative grammar

Quantification has also played an important role within the development of generative linguistics (cf. Aldridge 1982:63f). Relevant to this investigation are two aspects of quantification discussed within generative grammar: so-called “floating quantifiers” (as in The children were all happy) and possible transformations in constructions with and without of. These will be dealt with in Sections 3.3.4.1 and 3.3.4.3 below.

3.3 All, whole, both and half

Even though it is convenient, there is no real justification for grouping all, both and half together, since “each one has many uses not open to either of the others” (Gleason 1965:411). Grammatically, all, both and half are defined as pronouns or, together with words like double and twice, as predeterminers of heads of noun phrases. Whole is generally categorised as an adjective, but is often presented together with all, since these two words can have more or less the same function since (e.g. all the book, the whole book)36. Besides expressing quantity, all, whole, both and half relate to the concept of totality, but half has a different relation to the concept than the other three words.

This section will bring up a number of issues relating to the syntax and semantics of the four quantifiers: syntactic classification, syntactic differences be-

36 Also, cf. Footnote 5 on the word entire.
tween the words, definiteness, totality and various issues pertaining to the variation patterns, e.g. floating quantifiers (see Sections 3.3.2 to 3.3.4). First, there will be a short survey of the words from a diachronic perspective.

3.3.1 Historical background

Present-day English quantifiers have a long history. In Old English they were used syntactically (e.g. had the same inflectional endings) as adjectives (Lehrer 1987:102). “Adjective” is also the grammatical term used in the *Oxford English Dictionary* (henceforth OED) for the grammatical definitions of *all, whole, both* and *half*. Since today these words are mostly classified as pronouns (see Section 3.3.2.1), it seems that grammaticalisation theory (see Section 2.4 and 3.3.1.3) can offer at least part of the explanation of how some quantifiers developed from lexical words (e.g. adjectives or “concrete and embodied nouns” (P. Svensson (1998:204f)) to function words. Examples of the latter are *a lot of* and *a couple of*. We will not go into a discussion of this process with respect to all the variables investigated in the present study, but in Section 3.3.1.3 I will present an example hypothesis of a grammaticalisation process of *half* from noun to quantifying determiner.

The OED provides information on some of the relevant NP variants (cf. Appendix A). We will look at their first attestations in order to find out which variant in each variable occurred first in the English language. These diachronic facts will serve as a background for the discussion of some statements in the grammatical literature, concerning, for instance, markedness and transformations.

3.3.1.1 All and whole

The oldest attestation in the OED of *all* is on a runic inscription from around 700, although most instances in Old English texts are from the late 9th century onwards. The word is described in the OED as “properly an adj. but passing on one side into a n. [i.e. noun], on the other into an adv. [i.e. adverb]” (s.v. *all* a., n., adv.). J. Hudson (1998:59) regards the development of *all*, from an adjective modifying nouns to its present-day use in a number of grammatical functions, as a case of grammaticalisation, (see Section 3.3.1.3). She recognises that “a thorough investigation of the historical development of *all* is sadly lacking” (J. Hudson 1998:92). The word *whole* is first attested in a text from 888. Here, however, *whole* does not express totality but is defined as “in good health; free from disease; healthy […]” (OED, s.v. *whole* adj. 3.a.). Table 3.1 illustrates some variables with *all* and *whole.*
Table 3.1. Variables with *all* and *whole* (based on OED, s.v. *all* and *whole*)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Modern example</th>
<th>First attestation</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + DETERMINER + SING. NOUN</td>
<td><em>all the book</em></td>
<td>855</td>
</tr>
<tr>
<td><em>all of</em> + DETERMINER + SING. NOUN</td>
<td><em>all of the book</em></td>
<td>1800</td>
</tr>
<tr>
<td>DETERMINER + <em>whole</em> + SING. NOUN</td>
<td><em>the whole book</em></td>
<td>900</td>
</tr>
<tr>
<td><em>the whole of</em> the + SINGULAR NOUN</td>
<td><em>the whole of the book</em></td>
<td>1398</td>
</tr>
<tr>
<td><em>all</em> + DETERMINER + PLURAL NOUN</td>
<td><em>all the books</em></td>
<td>885</td>
</tr>
<tr>
<td><em>all of</em> + DETERMINER + PLUR. NOUN</td>
<td><em>all of the books</em></td>
<td>1903</td>
</tr>
<tr>
<td>PERSONAL PRONOUN + <em>all</em></td>
<td><em>we ... all</em></td>
<td>1000</td>
</tr>
<tr>
<td><em>all of</em> + PERSONAL PRONOUN</td>
<td><em>all of us</em></td>
<td>1593</td>
</tr>
</tbody>
</table>

As the table shows, all the variants with *of* are much more recent than those without. The *of* variant is “probably due to form-assoc. with *none of, some of, little of, much of, few of, many of*” (OED, s.v. *all* adj. 6). The construction is said to be rare except when preceding a pronoun (as in *all of us*). As far as *all/whole* in combination with a temporal noun is concerned, no examples are given in the OED. In the variable with geographical names, only the simple *all* variant (e.g. *all England*) is brought up (first attested in 886) (OED, s.v. *all* adj. 1.a). Similarly, the *all* + DEMONSTRATIVE PRONOUN variable was only represented by one of its variants: simple *all*, as in *all these*, first attested 700 (OED, s.v. *all* adj. 1.c).

3.3.1.2 *Both*

The origin of *both* is believed to be an Old Norse word (*baðar*), where the suffix *ðar* probably represented the definite article (OED, s.v. *both* adj., adv.). Table 3.2 illustrates the attestations of some variables including *both*.

Table 3.2. Variables with *both* (based on OED, s.v. *both*)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Modern example</th>
<th>First attestation</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>both</em> + PLURAL NOUN</td>
<td><em>both books</em></td>
<td>1526</td>
</tr>
<tr>
<td><em>both</em> + DETERMINER + PLURAL NOUN</td>
<td><em>both the books</em></td>
<td>1297</td>
</tr>
<tr>
<td>PERSONAL PRONOUN + <em>both</em></td>
<td><em>they ... both</em></td>
<td>1175</td>
</tr>
<tr>
<td><em>both of</em> + PERSONAL PRONOUN</td>
<td><em>both of us</em></td>
<td>1590</td>
</tr>
</tbody>
</table>

Considering the possibility of *both* already containing a marker of definiteness, it is surprising that the variant with a determiner (as in *both the books*) is attested more than 200 years before the first attestation of the variant without a determiner (as in *both books*). A more natural development would have been that the knowledge that *both* already includes a determiner was lost over time, and that this resulted in a later “double” definiteness marking in *both the/this* etc. (both the remnant of the definite article inside the quantifier and the overt defi-

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37 In OED, no distinction is made between singular count nouns and mass nouns, as is done in the present study.
nite determiner). Moreover, it is interesting to note the OED’s remark on both of in NPs with a noun and a determiner, as in both of the children, both of these arguments etc. The OED provides no first attestation of the both of variant, the variant is dismissed as “colloquial” and it is claimed that such constructions “scarcely ever occur in literature” (OED, s.v. both adj. 6).

No examples of the both + DEMONSTRATIVE PRONOUN variant are given in the OED, and there were no instances in the Helsinki Corpus (1.5 million words of Old and Middle English) either. Furthermore, the first attestation of both in a floating quantifier construction with a personal pronoun, as in they were both… (see Section 3.3.4.3), is more than three hundred years older than its alternative (both of us). The floating quantifier with a personal pronoun and both is also more than a hundred years older than the first attestation of both in a noun phrase with a noun as head, as in both the books.

3.3.1.3 Half
The first attestation of half is as a noun. Only one of the variables with half investigated in this study was presented with both its variants in the OED (Table 3.3):

<table>
<thead>
<tr>
<th>Variable</th>
<th>Modern example</th>
<th>First attestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>half a/an</td>
<td>half an hour</td>
<td>1377</td>
</tr>
<tr>
<td>a half</td>
<td>a half hour</td>
<td>835</td>
</tr>
</tbody>
</table>

The variant with an indefinite article preceding the quantifier (as in a half hour) was attested more than 500 years before the form where the quantifier comes first (as in half an hour). The OED (s.v. half adj. 1.c) further adds that “when these are viewed as independent numbers, amounts, coins etc., half is preceded by a, the, etc. and hyphenated to the n., as a half-dozen […].”

The construction half + DETERMINER + NOUN, as in half the book is first attested in the year 1000 (OED, s.v. half adj. 1.b). There are no attestations of half of (as in half of the book) in the presentation of half in the OED38, even though the construction type is mentioned in passing.

Let us now look at my grammaticalisation hypothesis. The assumption is that a/one half of was originally used for concrete singular count nouns. The phrase then extended its usage to more abstract mass and plural entities. Finally, a/one and then of were omitted (see Figure 3.5).

38 Only one example occurred in the entire OED. It appears under another headword and originates from as late as 1955: Surgery was performed on 70% of the hospitalized children, with tonsillectomies and adenoidectomies accounting for over half of the surgical cases (OED, s.v. adenoidectomy).
The OED hints at such a development: “[…] in mod. use it [i.e. half] is sometimes viewed as a n. with of suppressed, as in ‘half (half of, one half of) the men were sick, a quarter or a third of them seriously ill’" (s.v. half adj. 1.b). Similarly, Jespersen (1909–49:309) talks about a “hybrid between the sb and adj half) and Poutsma (1914:215) explicitly declares that “half is a noun when followed by of”, as in half of his funds. My hypothesis is strengthened by the fact that the OED’s first attested instance of half as a noun is from 700 (s.v. half n. 1.a), whereas the first instance of half as a determiner/adjective is from 835 (s.v. half adj. 1.a).

Although it is difficult to provide corroborating evidence for my hypothesis, since the proposed grammaticalisation process must have taken place many years ago, my hypothesis seems to fulfil several typical grammaticalisation criteria. One is “reanalysis” (Hopper & Traugott 2003:3), by which [[a/one half of the apple]] could have been rebracketed as [[a/one half of the apple]], so that the noun serving as head of the original NP instead becomes part of a quantifier modifying the new NP head (the apple). “De-categorialisation”, i.e. the loss of markers of grammatical category (Hopper (1991:30), would have occurred when a/one half of lost its indefinite article or numeral, both typical noun markers.

In the process of “bleaching”, a word loses some of its meaning or changes from one semantic domain to another, often involving a change from rather concrete to more abstract (Hopper & Traugott 2003:20; Haspelmath 1995:366). Half, which was originally used for concrete objects, sides etc., changed its meaning slightly when becoming a fuzzier quantifier, with the ‘side’ meaning lost. Again, the OED (s.v. half n. 1.a) supports this reasoning, since there are attestations of half referring to concrete objects from 700 (“the right or left side, the right or left ‘hand’”). The earliest attestation of half in a more abstract sense (“one of the sides of a conflict”) is from 885 (s.v. half n. 2).

When a construction is grammaticalised, the original form often lives on alongside the new one (Hopper 1991:23), as mentioned in Section 2.5. This principle of “layering” allows for the co-existence of forms at different stages of the grammaticalisation cline, as in the case of a/one half of, which coexists with half of and half.

Figure 3.5. Model of the possible grammaticalisation process of half

\[
\begin{align*}
a/one \text{ half of} & + \text{ prototypical concrete object noun} \\
\downarrow & \\
a/one \text{ half of} & + \text{ ANY NOUN (SINGULAR, PLURAL, MASS NOUN)} \\
\downarrow & \\
\text{half of} & + \text{ ANY NOUN} \\
\downarrow & \\
\text{half} & + \text{ ANY NOUN}
\end{align*}
\]
Frequency is further considered an important aspect (see, for instance, Thompson & Mulac, 1991:314ff). As a rule, only frequent words are grammaticalised. There were around 600 tokens (400 per million words) of half in its various spellings in the Helsinki Corpus and 30,000 tokens (300 per million words) in the British National Corpus, so it is and has long been a frequent word in English. Moreover, a new form typically becomes more frequent than the old one(s) (cf. Hopper & Traugott 2003:67). A small investigation (Estling Vannestål 2001b) showed such a pattern for the three variants a/one half of the, half of the and half the, as illustrated in Table 3.4.

Table 3.4. Distribution of half variants in three modern corpora

<table>
<thead>
<tr>
<th></th>
<th>N/M</th>
<th>%</th>
<th>N/M</th>
<th>%</th>
<th>N/M</th>
<th>%</th>
<th>N/M</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>a/one half of the</td>
<td>1.1</td>
<td>3%</td>
<td>7.8</td>
<td>21%</td>
<td>29.0</td>
<td>77%</td>
<td>37.9</td>
<td>100%</td>
</tr>
<tr>
<td>half of the</td>
<td>0.5</td>
<td>1%</td>
<td>7.4</td>
<td>20%</td>
<td>28.4</td>
<td>78%</td>
<td>36.3</td>
<td>100%</td>
</tr>
<tr>
<td>half the</td>
<td>1.0</td>
<td>4%</td>
<td>4.0</td>
<td>16%</td>
<td>20.4</td>
<td>80%</td>
<td>25.4</td>
<td>100%</td>
</tr>
</tbody>
</table>

N/M = number of tokens per million words, Cobuild = the Cobuild Direct corpus of English

A/one half of was less frequent than half of, which was less frequent than half. The distribution was the same in all three corpora, even though there were differences between the corpora as regards the relative frequency of the variants.

Judging from the fact that several grammaticalisation criteria are fulfilled, it is not unlikely that a/one half of the has been grammaticalised from a lexical phrase into its present-day form and function. A problem is that no attestations of the half of the stage were found in the OED and that there were no tokens in the Helsinki corpus. The possible development of half could, however, be compared with other cases where nouns have turned up in partitive constructions, lost some of their noun-like characteristics and acquired typical quantifier characteristics (cf. Lehrer 1987:102).

We will now leave history aside and examine the quantifiers from a present-day perspective, approaching a number of issues relating to the syntax and semantics of all, whole, both and half.

3.3.2 The syntax of all, whole, both and half

3.3.2.1 Syntactic classification

Since “determiner” is usually not recognised as a word class in its own right (cf. Huddleston & Pullum’s (2002:355) use of “determinatives” as a unifying word category), the words all, both and half are usually defined as pronouns which

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39 The British National Corpus (BNC): 100 million words of spoken and written BrE; the Cobuild Direct corpus: 60 million words of spoken and written BrE and AmE; the Longman Spoken American Corpus (LSAC): 5 million words of spoken AmE
40 Instances where half was used as a noun preceded by the definite article (e.g. the bottom half /of/) were excluded, since the purpose was to show the frequency of half as a quantifier only.
41 The corpus queries were restricted to half in NPs with the definite article.
can function syntactically as determiners in a noun phrase (cf., for instance, Quirk et al 1985:381f). Historically they have been classified as adjectives, and sometimes they still are (cf., for instance, Huddleston & Pullum 2002:356 on both in both sides).

The words are often grouped together with words such as double and twice as predeterminers, since each of them can precede the central determiner – the definite article or a possessive/demonstrative determiner – in a noun phrase (e.g. Quirk et al 1985:257), as illustrated in examples (3:17) to (3:19).

(3:17) The answers to all the questions are inextricably intertwined. (IND95)

(3:18) Both my brothers were killed at Dunkirk and my husband died later from the wounds he got when he was 18 in the First World War […] (IND95)

(3:19) Only half these managers could respond to these letters in the same language. (IND95)

All and both are in fact unique among the determiners in that they can also occur on their own, without another determiner, as in (3:20), (cf. Huddleston & Pullum 2002:376) (see Section 3.3.4.2).

(3:20) The Cranes argue that comprehensive schools are there to educate all children. (IND95)

All, both and half can be used as pronominal heads, as in All/Both/Half were happy (cf. Quirk et al 1985:258). Similarly, when they are used in a construction with of (as in All of the people were happy), Quirk et al (1985:258) refer to them as pronouns functioning as NP heads (see Section 3.3.4.1). Huddleston & Pullum (2002:434) consider half to be a noun since it can take a preceding indefinite article or a cardinal number. They also observe that it “behaves somewhat differently from other fractional nouns” (such as quarter and third) in that it can be used without a determiner, as in half his share.

Whole can be either an adjective, in the DETERMINER + whole construction, as in (3:21), or a noun, in the the whole of + DETERMINER construction, as in (3:22) (Quirk et al 1985:259f, 381).

(3:21) The whole world is tremendously concerned, […] (IND95)

(3:22) The whole of the city was packed, […] (IND95)

3.3.2.2 Syntactic differences between the quantifiers
In the literature all, whole, both and half are often treated as if they were quite similar. Leech (1989:66) for instance maintains that “all is very similar to both”. However, besides the obvious syntactic difference between whole and the other

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42 Confusingly, Quirk et al (1985:258, 377ff) discuss pronouns and determiners on the same level, in terms of function. Since “pronouns” is a word-class rather than a syntactic function, I use the term "pronominal head", thereby remaining on the same level as “determiner”.

55
three quantifiers, there are also several differences between the words in the all–both–half group. These differences, arrived at by means of intuition and various grammatical sources, are summarised in Table 3.5 and explained below.

Table 3.5. Syntactic differences between all, whole, both and half

<table>
<thead>
<tr>
<th></th>
<th>all</th>
<th>whole</th>
<th>both</th>
<th>half</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can combine with singular count nouns</td>
<td>*</td>
<td>+</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Can combine with mass nouns</td>
<td>+</td>
<td>*</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Can combine with plural nouns</td>
<td>+</td>
<td>*</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Can be used with the indefinite article</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Can be used without a central determiner</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>−</td>
</tr>
<tr>
<td>Can be used as a floating quantifier</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>−</td>
</tr>
<tr>
<td>Can be used in predicative function</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Can be used as a postdeterminer</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Can be modified</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>+</td>
</tr>
<tr>
<td>Can be followed by a postdeterminer</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>+</td>
</tr>
</tbody>
</table>

* Only rarely or in certain cases or with a particular meaning (see further below)

From the table we can conclude, first of all, that all and half are the most versatile quantifiers, occurring without restrictions in the largest number of syntactic construction types. Whereas both only combines with plural count nouns, all and half are used with both mass nouns and singular and plural count nouns, even though all is said to be rare with singular count nouns, as in (3:23) (Putseys 1985:388f) (see Section 3.3.4.4).

(3:23) A constitutional court responsible for all the country would be created.  

(IND95)

Quirk et al (1985:381) consider all with singular count nouns to be “somewhat formal” and point out that a whole construction, either with whole as an adjective (e.g. the whole world) or as a noun (e.g. the whole of the world) is generally preferred. The only case where all is preferred with a singular count noun is when the noun expresses an established amount of time, as in (3:24) (Putseys 1985:389) (see Section 3.3.4.4).

(3:24) The children swam and played all day […] (IND95)

All is also quite common in NPs with a geographical name, as in (3:25).

(3:25) […], all Ireland had the stench of black, mushy tubers. (IND95)

Whole is not supposed to combine with mass nouns, as in (3:26) (Quirk et al 1985:260), but in my corpus material it sometimes does, hence the star in the table.

43 Claims about differences in formality level between variants will be further discussed in Section 6.2.
The whole mystique is perpetuated by newspapers and magazines who repeat everything without criticism. (IND95)

Whole sometimes occurs in plural noun phrases, as in (3:27), but the meaning is then different from plural NPs with all. Their whole lives does not refer to number, but rather to amount (see 3.3.4.4).

They were settlers; their whole lives were in the baggage car. (IND95)

Whole and half differ from the other quantifiers in that they can be combined with the indefinite article in NPs like a whole apple, half an hour and a half(-) hour. The a whole construction will not be examined further in this study since it exhibits no syntactic variation. In Putseys’ (1985:379) view, a half, which is the oldest variant (see 3.3.1.3), is more formal and correct than half a (see 3.3.4.3).

A third, non-standard, alternative, a half a, is mentioned by Jespersen (1909–49:361) and Svartvik & Sager (1996:275). Huddleston & Pullum (2002:434) also bring up the (marginal) construction one(-)half the, as in exactly one half the amount. There was only one (questionable) occurrence in the whole corpus material (and very few in other corpora consulted), which is why it was not included as a variant to half (of) the in Appendix A.

All can be used both with and without the definite article or another determiner (e.g. all children/all the children, all morning/all the morning). Generally, when the head is not a temporal noun, there is a difference in meaning from generic (with the article absent) to specific (with the article present), but this is not always the case (see 3.3.4.2). Half and whole cannot be used without a determiner of some kind (half the children, the whole morning but not *half children, *whole morning).

Both can be used with or without the definite article in NPs with a noun as head44, as exemplified by (3:28) to (3:30), but without any obvious difference in meaning.

Both reports were unconfirmed […] (IND95)

Damien Hirst, showing new work at White Cube, is now so popular that both the major works were sold before they went on exhibition. (IND95)

I click on a link and recent reviews for both of the productions come up. (IND95)

There is also a non-standard form with the definite article preceding both in an NP with a personal pronoun, as in the both of us. The pre-both construction is not used when the NP head is a noun rather than a personal pronoun: *the both of the students (Huddleston & Pullum 2002:377).

All and both can be grouped together on the basis of both of them occurring as “floating quantifiers”, that is in a position after the NP (and sometimes after

44 Note that in cases where the head of the NP is a nominalised adjective, as in both (of) the latter/others, the definite article is required.
the predicate verb as well) rather than at the beginning of it. This variant can be used both with NPs with a nominal head, as in (3:31), and in NPs with a pronoun as head, as in (3:32). *Half and whole, on the other hand, cannot (Quirk et al 1985:126).

(3:31) *The lights were all on for the first time in four years […] (IND95)

(3:32) *They both love Richmond and are delighted that Freddy, seven, and Tabitha, five, will be growing up there. (IND95)

Floating quantifiers are further discussed in Section 3.3.4.3 below.

Putseys (1985:386) writes that noun phrases with both cannot be used as predicatives in a clause. In such cases the two is used instead. Examples (3:33) and (3:34) are both taken from Putseys.

(3:33) *These are both the things you want.

(3:34) These are the two things you want.

There is no such restriction for the other quantifiers.

*Half is the only word that can occur in postdeterminer position, which it does in the a half variant, as in (3:35).

(3:35) After a half hour or so, he moved on to Chinatown. (NYT95)

All, whole and half can all be modified by certain adverbs etc. expressing, for instance, approximation, comparison, exception etc., as in (3:36) and (3:37), whereas both cannot (Huddleston & Pullum 2002:375) owing to its intrinsic exactitude (‘two, neither more nor less’).

(3:36) Nearly all the great museums of Europe have all-day Sunday opening. (IND95)

(3:37) While millions starve, more than half the adult population of the Western world is overweight, […] (IND95)

Finally, all and half are the only quantifiers that can be directly followed by certain postdeterminers, as in all last night, all three men, all the many boys (Putseys 1985:382) and half last year. As for the other two quantifiers, words of this type are only used if the noun phrase includes of, as in both of the two boys and the whole of last night.

3.3.3 The semantics of all, whole, both and half

3.3.3.1 Classification in terms of definiteness

Even though definiteness is perhaps best analysed in whole NPs in context (cf. Hellberg 1992:36), many school and reference grammars ascribe definiteness to
isolated elements. One area where there are problems in the semantic classification into definite, indefinite or neither is in the case of quantifiers. Traditionally, words like all and both have been called “indefinite pronouns”, but, as Haspelmath (1997:11) observes, this category has served as a “waste-basket” for words that do not fit in anywhere else, and have rather little in common. He claims that some, any and no and their compounds are in fact the only real indefinite pronouns. Jespersen (1924:83) also notes that there is no consensus among linguists as to what words should be included in the group.

In a survey of how all, whole, both and half and their Swedish equivalents are classified in a number of grammar books (Estling Vannestål 2000), it was concluded that “indefinite pronoun” is a frequent label in both languages. Quirk et al (1985), for instance, use the term on the grounds that that these words “lack the element of definiteness which is found in the personal, reflexive, possessive and demonstrative pronouns” (Quirk et al 1985:376). In spite of their indefiniteness, these quantifiers can sometimes combine with elements of definite meaning, such as the definite article (ibid). As far as Swedish is concerned, the most comprehensive Swedish reference grammar refrains from labelling the words indefinite, since these words cannot be said to be inherently indefinite (Teleman et al 1999:369). On the other hand, the grammar does not say explicitly that the words are definite, that label being instead reserved for personal, demonstrative, reflexive, reciprocal and relative pronouns and the definite article (ibid:236). Interestingly, Sapir (1930:15) takes a perspective that is entirely opposite to the predominant tradition in remarking that “in a sense all totalizers are definite”. Jørgensen & J. Svensson (1987:24) also designate the quantifiers at issue (e.g. Swedish alla ‘all’) as definite pronouns – words which describe something that is clearly defined in the speech situation or the linguistic context. The same view is expressed by Huddleston & Pullum (2002:376): “Since a unique set is indicated and all indeed makes a stronger statement of totality than required for definiteness, all must be considered as a definite determiner.” The grammatical literature thus comprises a whole spectrum of labels, from indefinite to definite, with some grammarians finding neither of the two appropriate. I agree with the view that the totalizers all and both (but not half and whole) are intrinsically definite. Even in the case where, for instance, all X refers generically, the listener will be able to identify the referent (since it is all imaginable X in the world), which is the crucial criterion for a definite expression.

Sapir (1930:15), in spite of his suggestion that all totalizers are definite, distinguishes between indefinite and definite uses of all. In all the people in the room, all is indefinite, since the number of items (people) does not have to be known by the speaker and listener. In all the cardinal points, referring to ‘all four of the cardinal points’, however, the number is known by the speaker and listener, even if it need not be overtly expressed, and all is definite in such a noun phrase. This supports Hellberg’s idea that the property of definiteness can only be acquired in context, and should not be ascribed to isolated elements. Both is treated by Sapir as an invariably definite totalizer, since the number of items referred to is always two (Sapir 1930:15). It could be argued that the degree of intrinsic definiteness varies from one quantifier to the other.

Jespersen (1933:68) gets around the problem of the definite/indefinite distinction by dividing determiners into “pronouns of definite indication” (the, this
Reed (1996:143ff, 173) distinguishes between indefinites (e.g. *a*, *some* etc.) and *pronouns of indefiniteness* (e.g. *a*, *some* etc.) and “pronouns of totality” (*all*, *no* etc.). She bases her analysis on the different discourse functions of the NPs in which the words are used: to evoke new discourse entities (indefinites), to access discourse entities (definites) and to evoke subgroups of discourse entities (partitives).

### 3.3.3.2 Totality

Apart from the general quantifying aspect, there is also a more specific semantic similarity between *all*, *whole*, *both* and *half*, in that they are all related to totality in some respect. The first three (*all*, *whole* and *both*) express one extreme of a scale with *no* at the other end.

**Explaining “totality”**

Sapir explains totality from a cognitive point of view, relating to the perceptual experience of human beings. The notion is derived from either of two types of experience:

1. “the feeling of rest or of inability to proceed after a count, formal or informal, has been made of a set or series or aggregation of objects”
2. “the feeling of inability or unwillingness to break up an object into smaller objects” (Sapir 1930:7)

The former is connected with the “all” feeling and the latter to the “whole” feeling. Words like *all* and *whole* are called “totalizers”, i.e. quantifiers “whose function is to emphasize that in the given context the quantifiable is not to be thought of as capable of increase, e.g. *all, the whole flock*” (Sapir 1930:6).

Sapir (1930:8f) ventures into a not so easily comprehended division into six groups of totalizers. The first type (“whole existent”) refers to items that are “divisible into parts but ‘resisting’ such division”, as in *the whole table*. The second type (“summated existent”) refers to “an aggregate of parts derivable from a normally undivided existent”, as in *all of the table*. The third type (“persistently/reassertedly whole existent”) refers to items that are “thought of as divisible into parts but apprehended as persistently resisting deformation”, as in *the whole of the table*. The fourth type (“aggregate”) refers to items that are an “aggregate of existents, each of which is considered as having functional reality”, as in *all the tables*. The fifth type (“whole aggregate”) refers to an “aggregate thought of as divisible into members or parts and as ‘not resisting’ such a division”, as in *the whole set of tables*. Finally, the sixth type is called “reasserted aggregate” or “relapsed collection”. It refers to an “aggregate apprehended as threatening, as it were, to fall apart into a simple aggregate”, as in *all* 

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45 Cf. Newbrook’s statement (Section 3.2.1.1) about regional differences in the interpretation of negative clauses including *all* (1992:15f; 2001:128f).
of the tables. It is very difficult to grasp the difference between, for instance, a “whole existent” and “persistently whole existent”. Furthermore, how does one differentiate between an item that is “divisible into parts but ‘resisting’ such division” and one that is “thought of as divisible into parts but apprehended as persistently resisting deformation”? Still, this attempt at describing possible semantic differences between the words is quite interesting and therefore worth mentioning, especially since it is quite contrary to the traditional classification of all and whole in terms of divisibility (cf. Section 3.3.4.4). There will be reason to come back to Sapir’s presentation of a part–whole relationship and possible semantic differences between variants with and without of in Section 3.3.4.1 below.

Totality vs. large quantity, intensity etc.
Some scholars have implied that all and whole do not always contribute much meaning to a noun phrase. For instance, Quine finds these words “logically redundant” (cited in Aldridge 1982:16) and Sapir (1930:17) uses the term “pseudo totalizer”, observing that, sometimes, all is an “explicitly definite totalizer”, whereas in other cases perhaps it is not. All men are mortal, for instance, might just paraphrase Men are mortal, all in this generic sense being a class-indicator rather than a true totalizer. Similarly, the definite article could, according to Huddleston & Pullum (2002:376), replace all in sentences such as (3:38) and (3:39), even though the totality concept is slightly weakened in the latter:

(3:38) All students who have failed (= The students who…)

(3:39) We spent all day at the beach (= We spent the day…)46.

Huddleston (1984:253) writes that “putting all before the emphasises, reinforces the meaning of totality, rather than introducing it”. Similarly, R. Hudson (1990:286) suggests that the contribution of all to the noun phrase is here not semantic, but rather pragmatic, stressing the completeness aspect of the NP.

I would like to take Huddleston’s and R. Hudson’s ideas one step further by claiming that in some cases, all does not even express totality at all. In its original, prototypical function, all either introduces or emphasises the totality meaning; however, it can also fulfil another communicative function. Let us look at the noun phrase all the flowers. In a sentence such as (3:40), all is clearly a marker of totality, introducing the “completeness aspect” mentioned by R. Hudson. In this instance, we are talking about all the flowers, not just some of them.

(3:40) Are all the flowers perennial or just some of them?

Consider next the song title Where have all the flowers gone? Here, all does not seem to express totality meaning, but indicates that we are thinking of a large number of flowers. This nuance would not have been expressed had the quanti-
fier been left out (as in Where have the flowers gone?). Therefore, the quantifier is not redundant, as suggested by, for instance, Quine and Huddleston & Pullum. The hypothesis of totality meaning vs. large-quantity meaning can also be connected to the fact that all functions as a plural marker – that is saying something about quantity in general rather than expressing totality – in informal second person pronouns you all, you-all, y’all (Quirk et al 1985:344; Wales 1996:73, see Section 3.3.4.3). Stress can probably be at play in the difference between totality and large-quantity meaning, so that the quantifier does not carry stress when used with large-quantity meaning, while it typically does when the totality interpretation is intended (see further below)47. In many cases, a possible test for checking whether an instance of all has totality or large-quantity meaning is the following:

(a) For totality meaning to add not just some etc.:

ING has in effect purchased the Barings name, and nearly all of the active businesses […] (IND95) → ‘not just some (of the businesses)’

(b) For large-quantity meaning to replace all with many, extensive etc.:

[…] for all the fine words, this government would raise taxes after an election victory […]. (IND95) → ‘in spite of the many fine words’

The seemingly double function of all resembles two different structures expressing duality. A noun phrase such as both /the/ children emphasises totality, but a noun phrase like the two children does not (Quirk et al 1985:259). This difference can be expressed in other languages as well, although they may have other ways of making the distinction. In Swedish, for instance, the difference is expressed by a combination of phonology and syntax. With totality meaning proper, båda and bägge (‘both’) introduce the noun phrase and the pronoun carries stress, as in ’båda de andra böckerna (‘both the other books’). On the other hand, båda/bägge can also be used without stress and then occur after the definite determiner, as in de båda ’andra böckerna (‘the two other books’). In this case the pronoun does not emphasise the totality of the noun phrase (Teleman et al 1999 II:377f). This can also be compared with the double function of another quantifier, some. There is one function where some is stressed and the pronunciation is [sʌm], as in (3:41), and another where some [sʌm] is unstressed, as in (3:42).

(3:41) There is 'some coffee [but not enough for everybody].

(3:42) Would you like some 'coffee? [rather than, for instance, tea]

These two functions resemble those of all described above.

47 Unfortunately, this phonological aspect could not be studied in the corpus material since the spoken corpora used have not been annotated for prosodic features.

48 The English corresponding construction (the two) can also be directly translated into Swedish: de två andra böckerna.
Teleman et al (1999:372f) bring up the totality meaning of *all* in the context of plural determiner + possessive attribute in Swedish. In *alla Svenssons böcker* (‘all Svensson’s books’), *all* has totality meaning proper49, whereas in *Svenssons alla böcker* (‘all possible books’), the totality meaning is said to be “weakened” (what I refer to as “large-quantity meaning”). Weak totality meaning is also at play in noun phrases including certain adjectives that express multitude, as in *alla möjliga böcker* (‘all possible books’), where the meaning is similar to *diverse böcker* (‘sundry books’). The authors do not, however, mention the fact that much more frequent constructions – without a possessive attribute or an adjective like *möjlig* (‘possible’) – can also have weak totality meaning in Swedish, as exemplified by the Swedish translation of the song title quoted above (3:43):

(3:43) Vart har *alla blommorna* tagit vägen? (‘Where have all the flowers gone?’)

Although the two duality constructions (*both/two*) are mentioned in most English school and reference grammars, the meaning of *all* is seldom discussed in grammars of the English language, apart from the idea about *all* being redundant. One exception is Jespersen (1933:186), who comments on a particular type of *all* construction. He writes that “the meaning of *all* is weakened” in sentences such as (3:44):

(3:44) They understand that good management makes *all the difference* 50 […].

(IND95)

Jespersen interprets the noun phrase as ‘a great deal of difference’ (my emphasis), which can be compared with my hypothesis of a large-quantity meaning. Moreover, Putseys (1985:372) points to the meaning of *all* in sentences like (3:45):

(3:45) That ugly little house was *all the home* (that) I ever had.

Putseys does not talk about this example in terms of weak totality meaning, but defines its meaning as ‘exclusively, only’51.

In Section 7.4.3 I will suggest that totality meaning is more likely with certain types of elements occurring in the NP or its near co-text. This group of elements (referred to in this study as “focus markers”) comprises other quantifiers (*all /of the many/ten books*), negations (*not all /of the books*), approximators (*nearly all /of the books*), exceptions (*all the books except one*) plus a number of other, more or less subtle words signalling totality.

Is the difference between totality meaning and large-quantity meaning reflected in the choice of variant? Compare *Are all the flowers perennial?* and *Where have all the flowers gone?* with corresponding noun phrases including *of*.  

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49 However, it would also be possible to use this word order in large-quantity meaning, if the stress were on the noun (*böcker*) rather than on the quantifier (*alla*).

50 The phrase *make all the difference* was excluded from my study as a fixed expression.

51 Similarly, Long (1961:336) writes that in sentences such as *That’s all we ask, all* “implies that the totality it represents is small”.

63
Where have all of the flowers gone? sounds unidiomatic, whereas Are all of the flowers perennial? is not. The of variant seems to be a more natural alternative when the quantified noun phrase expresses totality meaning rather than large-quantity meaning, as illustrated in Figure 3.6. It is also possible that there is a meaning scale, rather than an absolute dichotomy, thus the arrows at the extremes of the line.

<table>
<thead>
<tr>
<th>Totality meaning</th>
<th>Large-quantity meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are all the flowers perennial?</td>
<td>Where have all the flowers gone?</td>
</tr>
<tr>
<td>Are all of the flowers perennial?</td>
<td>Where have all of the flowers gone?</td>
</tr>
</tbody>
</table>

**Figure 3.6. The meaning of quantifiers in NPs with all**

We will return to the hypothesis about totality meaning and the all of variant in Section 7.4.3.1.

In some contexts, all might also add an emotional aspect to the meaning of the NP. In (3:46) all expresses totality rather objectively:

(3:46) Clearly, not all these problems have gone away. [only some of them]  
(IND95)

In (3:47) the speaker expresses a more subjective attitude, in this case worry, sadness or the like.

(3:47) It was only when she arrived – she was so small and weak that it felt like we had another baby – that suddenly it hit me. *All those little mouths to feed!* *All those responsibilities!* (IND95)

Labov (1984:48ff) suggests that all and a few other quantifiers (e.g. no and everybody) can sometimes be used pragmatically for expressing intensity, rather than totality. Consider the use of all in (3:48).

(3:48) I didn’t bring none of my clothes back … I left ‘em all down there.  
(Labov 1984: 48, my emphasis)

Here the quantifier clearly refers to my clothes in the previous sentence, so it is not an intensifying adverbial as in I knocked him all out in the street. Looking at a wider context, however, it is clear that the speaker does not refer to all her clothes, since in the interview she is not naked. Therefore, the sentence involves “cognitive contradictions” (Labov 1984:ibid). Labov explains this paradox in the following way:
All universal quantifiers are bound in an implicit set of ‘things that count’ or ‘things that are worthy of mention’. [...] To deal with (14c) [example 3:48 above] we would have to interpret ‘things that count’ as ‘clothes that are needed for more than a few days’. The clothes that Dolly Ripley [the speaker] is wearing, and the few that she needs for a short stay in New York City, are perhaps not ‘worth counting’ in evaluating the statement, I left all my clothes down there. [...] This pragmatic approach accepts the meaning of universal quantifiers that is conventional for sentence grammar, and tries to show how the apparent illogic of usage is the result of interaction with a larger context52. [...] I will use the term ‘loose interpretation’ to mean a sense of a universal quantifier that focuses only on the whole and makes no division among the members of the class, with no attention to possible exceptions. The term ‘strict interpretation’ will apply to a sense of universal quantifiers that conforms to logical practice and specifically rules out exceptions. (Labov 1984:49f).

Labov also brings up phrases like all the time, where all would normally be interpreted “loosely”, since a sentence like (3:49) is logically impossible (cf. Section 7.3.2):

(3:49)  He eats all the time and don’t even get fat. (Labov 1984:53)

Similarly, in cases like The baby was crying all night, the noun phrase really means something like “what seemed like all night’ or ‘most of the night’53, with all used in a kind of intensifying rather than true totalising function (Chesterman 1991:67). In many cases such as these, intensification is not an appropriate label for the meaning of all, and perhaps the hypothesised large-quantity meaning would be a better description. Interestingly, all the time and the whole time are often classified as fixed expressions in dictionaries, having a rather metaphorical meaning of ‘continuously, very often’, sometimes with a negative connotation of irritation (cf., for instance, Longman 2003, s.v. all determiner, predeterminer 1, and whole adj 1). Still, it is probably quite possible to use all the time with totality meaning proper, which is strengthened by the fact that the corpus included cases with of, as in (3:50).

(3:50)  On the other hand he knows that [...] he wasted his talent in his teens and early twenties by wanting to have a good time all of the time. (IND95)

52 Another example given by Labov (1984:48f) is you ain’t never been no place. Here, the negative quantifier no is used, like all above, in a hyperbolic way. It is not to be interpreted as if the person has not been anywhere at all (which is a logical impossibility) but simply that he or she has not been to “any place that counts as far as places worth being to are concerned”.

53 Referring to Lyons (1977:456), Chesterman remarks that all can sometimes have a more determinative than quantitative function, as in Which sweets do you want? All of them. (1991:4, my emphasis).
In light of the discussion of different meanings of *all* \(^{54}\), it is obvious that the semantic concept of *all* is a very complex one. Therefore the idea of *both* being a mere dual variant of *all* in semantic terms, as expressed by, for instance, Sapir (1930:16) and Jespersen (1933:186), can clearly be refuted. It could be argued, however, that if *all* occurs in various functions, *all1*, *all2*, *all3* etc., then *both* is a dual variant of one of these. Not only the semantics, but also the syntax of *all* is in some respects quite different from that of *both*.

### 3.3.4 Variation patterns – syntactic and semantic aspects

As mentioned in Section 1.2, this investigation takes four different variation patterns into account, repeated here in a shorter form:

- presence or absence of the preposition *of*
- presence or absence of the definite article
- alternating positions of the quantifier
- alternating lexical elements (*all/whole*)

In this section we will look more closely at these four patterns.

#### 3.3.4.1 Variants with and without *of*

*All*, *both* and *half* differ from other quantifiers in that *of* is optional in definite noun phrases\(^{55}\). Whereas we can make a choice between saying *all/both/half the children* or *all/both/half of the children*, we cannot choose between saying *most/*many/*some the children* and *most/many/some of the children*. Only the latter construction is possible with such quantifiers (Langacker 1999:75). *All*, *both* and *half* cannot be used in *of* constructions lacking a definite determiner (*all of the/these/my children* but not *all of children*). This restriction is often called “the Partitive Constraint” (Reed 1996:149).

As illustrated in Figure 3.7, there are (at least) two ways of analysing quantified NPs including *of*, referred to as “fractional partition” in Quirk et al (1985:258) and as a “(partitive) fused-head construction” (see 3.1.1.1) in Huddleston & Pullum (2002:333, 376). In the first analysis, used by both Quirk and Huddleston & Pullum, the quantifier is the head of the NP and the *of* phrase is some kind of postmodification or complement. In the second analysis, the noun in the *of* phrase is the head.

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\(^{54}\) It is also possible that *whole* can have a more pragmatic function. In phrases such as *the whole point* and *the whole matter*, where the stress is on the noun rather than on *whole*, it is sometimes difficult to perceive a true totality meaning.

\(^{55}\) According to Quirk et al (1985:373), the *of*-phrase is preferred to the *of*-less one when another quantifier precedes the noun in the NP (e.g. *all of the many boys*), especially in American English (see Section 7.4.3).
Reed (1996:147) uses the terms “matrix NP” or “full partitive NP” when referring to noun phrases with *of*. Furthermore, she regards them as consisting of two noun phrases. The whole NP is the matrix NP and the part following *of* is embedded, in line with analysis (a). Previously, Jackendoff (1968:422f) expressed the same view, in distinguishing between words like *some* and *all* in pronominal use, when the quantifier occurs (i) alone or with a following *of* phrase, as in *some /of the men/,* and (ii) in adjectival use, when the quantifier directly precedes a noun, as in *some men*. The idea of the quantifier being the head of the noun phrase seems reasonable, since, as Jackendoff shows, it can actually stand on its own, as in (3:51) and (3:52), as long as it is specified from the context.

(3:51) Two path-breaking icons of the post-war theatre were produced in Sarajevo during the siege. *Both* had their own particular contextual ironies, […] (IND95)

(3:52) Six million of Poland’s pre-war population of 32 million died. Almost *half* were Jews. (IND95)

Within generative grammar *of* constructions have been explored in terms of possible transformational rules (cf. Aldridge 1982:82). Seppänen & Seppänen (1986:169f, 175) use a rule of *of* dropping to explain why *both the children* and *both of the children* can mean the same thing. They refer to the possibility that an NP like *three children* is as a transformation from [THREE OF CHILDREN]. According to this rule, *both /the/ children* would be a transformation from [BOTH OF CHILDREN]. However, considering the fact that the *all* and *both* variants including *of* are attested much later than those without, a rule involving an *of*-less form as the underlying structure is more motivated. In fact, 90 years ago, Poutsma (1914)\(^56\) expressed the possibility of the quantifier rather than the quantified noun being the headword, not only in NPs with *all of*, but also in *of*-less noun phrases.

When *all* and *both* stand before a plural noun modified by the definite article, or an adnominal (pro)noun, as in *All (both) the (my, these, my brother’s) children sat at the table*, they may be considered as substantival pronouns or numerals, to which the following noun is related as a kind of apposition. Apposition may be considered to represent genitive inflection, as will be seen from

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56 Poutsma (1914:217) also suggests the possibility of *all and both* in fact being adverbials, since these words can also appear in adverbial positions, as in *the children have all (both) come home*, what is today referred to as floating quantifiers (see Section 3.3.4.3).
the fact that the preposition of is occasionally placed before the plural noun: All of these tribes had the same language. (Poutsma 1914:216f)

Similarly, Allan (1999:26) regards not only NPs with of, but also of-less constructions, such as all the children, as consisting of two noun phrases rather than one. This disregards the function of of, an idea which can be questioned, especially in light of the possibility of a distinction between totality meaning and large-quantity meaning of all being connected to all of vs. all.

The other approach to defining the syntax of of phrases is advocated by Sinclair (1991:82f), who rejects the traditional classification of of as a preposition, since of phrases are used in so many functions that differ from typical prepositional phrases. When occurring in an NP, a prepositional phrase is typically a postmodifier (or complement) of the preceding noun. Of phrases are seldom described in the literature as behaving any differently. Sinclair (ibid) argues, however, that very often, an of phrase is used in an NP where the noun following of could be regarded as the most important word. Examples of such phrases are the bottle of port, millions of cats and both of them. Sinclair’s classification is quite convincing, since the “the omission of N2 [i.e. the noun following the preposition] does the greatest damage to coherence”. For instance, if, in some cases, all and whole are more or less redundant (cf. 3.3.3.2), the noun following of is certainly the most natural headword, at least from a semantic point of view. On the other hand, all, both and half can also stand on their own, so that Sinclair’s example both of them could be ellipted to just both, in which case the quantifier constitutes the head of the NP. Headedness is indeed a complicated issue, and it may be that both these analyses can be applicable depending on the circumstance. We will return to this topic in Section 7.3.3.

Another important issue pertaining to the choice between variants with and without of is grammatical synonymy (see Section 2.1.2). In constructions like all of the children, of has often been regarded as a meaningless grammatical particle, especially within most generative approaches. Generativists have frequently supported their arguments with examples of seemingly synonymous pairs like the machine’s humming/the humming of the machine (Langacker 1999:73), disregarding that of can have different functions. Reed (1996:165) also believes that variants with and without of mean the same thing, so that words like all and both have a partitive interpretation whether the partitive structure is overt, as in both of the children, or not, as in both /the/ children 57.

The meaninglessness of of has been questioned. Aldridge (1982:204), for instance, points to its semantic function as ”linking the overt quantifier with the limited universe of discourse”. Admittedly, the multitude of functions that of has (cf. Sinclair’s discussion above) leads him to confess that he is sometimes “tempted to conclude that it does no more than establish the broadest possible relationship between items” (ibid:205). Still, he tentatively suggests a difference between variants with and without of, relating it to the fact that other quantifiers (like many, each etc.) require of in combination with definite noun phrases. He

57 Apart from Sapir’s brief comment (see Section 3.3.3.2), no accounts of possible semantic differences between the whole vs. the whole of have been found in the literature.
hypothesises that in noun phrases without of (as in all the children), we are imagining “an undifferentiated whole, whereas if we retain it [as in all of the children], we are conceptualising the set as made up of distinct individuals” (ibid:208, see also J. Hudson 1998:54). Support is taken, inter alia, from the fact that of cannot be deleted after numerals (e.g. two of the children), which are inherent markers of individuality. The argumentation is, as the author admits, somewhat vague and would probably require some further consideration. Also, it only concerns plural noun phrases.

Huddleston & Pullum (2002:434) find a possible subtle difference in meaning between half and half of, since “the plural is possible, however, in the partitive construction: both halves of the apple. This indicates that the two variants are not absolutely equivalent: the partitive allows half to be interpreted in a more physical sense as ‘half-portion’” (cf. 3.3.1.3).

Langacker, in line with his general cognitive grammar principles, also argues against the meaninglessness of of. In his view, the difference between all and all of is that with all of, the notion of subpart–whole is more salient in the speaker’s mind than otherwise (Langacker 1991b:113). Langacker makes another reflection with respect to NPs with all vs. NPs with all of:

Unlike the other quantifiers, all profiles a mass whose relation to the reference mass is one of coincidence58, i.e. it exhausts the reference mass. Thus for all, but not for other quantifiers, the sub-part relation between the two masses fails to qualify as a proper one […] It is hardly surprising, then, that for this quantifier in particular the language might evolve an alternative construction lacking of […] (Langacker 1999:75)

The idea of an of-less variant “evolving” can be questioned, however, since, as we saw in Section 3.3.1.1, all of is a much more recent variant than that without of. Another objection could be that half, which can be used just like all and both without an of construction, does not fulfil the totalising function that all and both do, so half does not profile a mass that corresponds to the entire reference mass, but rather resembles constructions like some of and much of. But if the hypothesis that half the has developed from the nominal construction a/one half of the (see Section 3.3.1.3) is correct, half constitutes a special case, not really comparable with all and both. It is unfortunate that Langacker does not even mention half.

Sapir (1930:11), although observing semantic differences between syntactic variants in the case of all and whole (see Section 3.3.3.2) concludes:

It is not claimed for a moment that the ordinary English uses of ‘the whole’, ‘all of’, ‘the whole of’, and ‘all’ necessarily correspond to our exacting distinctions, merely that they tend to do so. In actual practice there is considerable confusion.

58 The same applies to both, which Langacker does not mention.
3.3.4.2 Variants with and without the definite article

There are variables where a quantifier can be used either with or without the definite article without any obvious difference in meaning:

- all men/activity vs. all the men/activity (with specific reference)
- all day vs. all the day
- both men vs. both (of) the men

Noun phrases including all in combination with a plural or mass noun without a definite article or other determiner typically have generic reference, as in (3:53).

(3:53) All men are created equal. (Quirk et al 1985:259)

Givón (1993:251) states that “unless used with a definite determiner […] it is inherently generic, or non-referring.”. Halliday (1994:182) also considers all to be non-specific. The literature does, however, provide examples of all in clearly specific situations, as illustrated by the following examples.

(3:54) All men in this room are secret policemen. (Allan 1999:10)

(3:55) All activity in the saloon area stops dead. (Putseys 1985:382)

Both these examples include postmodification and it is possible that a specific interpretation of an NP with simple all (without a determiner) is more likely when the NP is postmodified. Similarly, in NPs with temporal nouns, there is one variant with and one without the definite article, even though the latter is infrequent (Putseys (1985:382; Swan 1995:69). According to Quirk et al (1985:69), “in the negated expression I haven’t seen him all day, only the zero form is used”.

An NP with all and a plural or mass noun and no determiner can be either specific or generic, and is generic in the normal case. In contrast, both is always specific, regardless of whether it is combined with a definite determiner (as in both the children) or not (as in both children). Besides the of-dropping transformation (cf. Section 3.3.4.1), Seppänen & Seppänen (1986:175, 183) introduce a rule of the-dropping which is “optional after both [as in both children], blocked after all [since the dropping of the generally implies a change in meaning from specific to generic, as in all children] and obligatory after the other quantifiers [e.g. *any the boys].”

In the grammatical literature, the simple both variant (as in both children) is generally introduced as an alternative to the variant with the definite article. Leech (1989:66), for instance, writes that “we can omit the after both” (my emphasis, see also, for instance, Seppänen & Seppänen 1986:169f; Berry 1997:138). From a diachronic perspective, this is a natural approach, as simple both is a later variant than both the. From a synchronic, quantitative and pedagogical perspective, however, both the would best be presented as an alternative to simple both, since the latter is so much more frequent than the former (see Section 5.1.1.2).
In certain cases a knock-out effect (see Section 2.1.3) affects the variation in NPs with both. This happens when the NP has restricted reference, that is when there are only two possible alternatives in the world (as with twins, halves etc.). Both dictionaries and the corpus material suggests that the definite article is not used in those cases; consequently the only valid alternative is simple both, as in both halves. Two types of noun tend to have a special status in this case. When the NP head refers to a body part or is a word expressing kinship (e.g. parents 59), then a possessive determiner, as in both my eyes/parents, is sometimes a valid alternative (cf. Quirk et al 1985:258)60). Heine (1997:85f) refers to these two noun types as being “inalienable possessions”, since they “cannot normally be separated from their owners”. So, consequently there are four different groups of NPs with both and a plural noun:

- both – both the – both of the (in NPs with non-restricted reference)
- both these/my – both of these/my (in NPs with non-restricted reference)
- both – both my – both of my (in NPs with restricted reference where the noun denotes body parts or kinship)
- both (in NPs with restricted reference, where the noun does not denote body parts or kinship)

3.3.4.3 Alternating positions of the quantifier

There are two cases of alternating positions of the quantifier in the study:

- a half vs. half a
- all of us/them vs. we/they...all

After a few words on a half and half a, the main part of this section will be devoted to the phenomenon called “floating quantifiers”.

A half vs. half a

As we saw in 3.3.1.3., a half is the oldest variant in this variable. In Jespersen’s (1909–49:308) view, the half a variant may have originated from cases where half is an adverb, comparing such noun phrases with those including quite (quite a…).

Berry (1997:70f) believes that the two variants in fact have slightly different meanings: half a is used for when an amount is seen as part of a whole (half a bottle out of a whole bottle). In contrast, a half is used to indicate an established unit (e.g. a half-bottle). It seems that this distinction holds for some nouns, e.g. bottle, as in Berry’s example, whereas a semantic distinction is more problematic with nouns like hour. Is a half-hour a more established unit than half an hour?

59 Some words can both denote kinship and have a more general meaning, such as children. It is only when the context involves parents and their children that possessive determiners, as in both (of) their children, can be used. In another context, where parents are not in focus, both (of) the children would be a more natural alternative to both children.

60 There must be some kind of restriction in terms of definiteness and salience here, since the simple both form is only natural when the “owner” is situationally salient in the discourse (cf. von Heusinger (1997:8f) referred to in Section 3.1.4.2).
This possible semantic distinction will be discussed in Sections 7.3.6 and 7.4.3.2 below.

Floating quantifiers
A particularly interesting type of quantifier construction is the phenomenon called floating quantifiers. This term is used for cases where a quantifier (all, both or each) modifying the plural subject of a clause “floats away”. It occurs either between an auxiliary and the main verb, as in (3:56), or directly precedes a main verb, if there is no auxiliary, as in (3:57) (cf., for instance, Berry 1997:83; Quirk et al 1985:126, 258).

(3:56) [...] if we keep talking while you keep fishing, the fish will all be gone and there will be nothing left to talk about’. (IND95) (cf. All /of/ the fish will be gone...)

(3:57) The banks all said: “But Mr Lloyd, nothing like this has been tried before.” (IND95) (cf. All /of/ the banks said...)

The quantifier is sometimes placed between the noun phrase and the auxiliary (as in We both were working late), but this usage is rare and perhaps not entirely accepted (Quirk et al 1985:126). Hoeksema (1996:58) suggests a third variant, when a clause contains more than two auxiliary verbs. So, in fact there are three different positions of the quantifier, as in (3:58a-c):

(3:58a) We all should have been drinking tea.

(3:58b) We should all have been drinking tea.

(3:58c) We should have all been drinking tea.

There are a number of syntactic constraints on how floating quantifiers can be used. They cannot occur between a main verb and a direct object (*The men saw all the accident), they cannot float from the main clause to the subordinate clause of a sentence (*The boys said that it was all raining), and so forth (O’Grady 1982:520f). It should further be remembered that the construction with a floating quantifier is mainly used in plural noun phrases, even though O’Grady (1982:538) points out that all can also float when the head of the noun phrase is a mass noun, as in The linen has all been washed. The phenomenon of floating quantifiers used with singular NPs is seldom discussed in the literature.

Within generative grammar, a floating quantifier construction has traditionally been regarded as the result of a transformation from a deep structure where the quantifier is contained within the subject noun phrase, as in [ALL THE FISH WILL BE GONE] (cf., for instance, O’Grady 1982:522 and Hoeksema 1996:64). This perspective has influenced the terminology and descriptions in other approaches to grammar as well. Quirk et al (1985:382) write that “When all, both

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61 The floating quantifier construction must not be confused with cases where all functions as an intensifying adverb (as in He is all upset.) (Quirk et al 1985:260).
and *each* are *postposed* (my emphasis) [...] they appear in the position of a medial adverb.” Aldridge (1982:209) uses the term “post-positioning” and Berry (1998:32) the term “delayed pronouns”. All this terminology (‘floating’, ‘postposed’, ‘delayed’ etc.) implies that the construction where the quantifier introduces the noun phrase is the unmarked variant and the floating construction the marked one. Berry (ibid), however, recognises that this might be an erroneous interpretation. Hoeksema (1996:64f) claims that a number of problems arise with the traditional generative view. It is also rejected by the generativists Haegeman & Guéron (1999:231). They assume instead that the underlying structure is something like [HAVE + [ALL THE GIRLS] BOUGHT THE BOOK], and that in the ordinary case (all the girls have bought the book) the whole NP ([ALL THE GIRLS]) is moved while in the case of a floating quantifier construction (the girls have all bought the book), only [THE GIRLS] is moved.

In my opinion, two facts contradict the view of the floating quantifier as the marked variant. First, this form is attested much earlier than the of form, both with *all* and with *both*. Second, the floating quantifier is far more frequent overall than the other variant. Frequency is not the only criterion relevant to markedness (rather a symptom of it), but it is often discussed in relation to this complicated notion (cf. Comrie 1996:6ff).

Another approach is the one where floating quantifiers are analysed as adverbials “which serve as operators on the verb phrase or parts thereof” (Hoeksema 1996:74). This would explain why the quantifiers can be used in sentence-medial position and some other characteristics typical of floating quantifiers (cf. O’Grady 1982:523; 535ff, Hoeksema 1996:74). In my view, however, this analysis of *all* is not convincing, since *all* seems to be quite tightly connected to the NP even though it is placed in another part of the clause. Also cf. Quirk’s observation in Footnote 61, where adverbial *all* is contrasted with the quantifying pronoun *all*.

Jespersen (1933:185), Reed (1996:167), Huddleston & Pullum (2002:376) and others offer yet an alternative interpretation: they claim that floating quantifiers are a mere reduction of a partitive construction with redundant material, as in (3:59). The longer variant exists in Present-day English, but is rare (cf. Section 5.1.3).

(3:59) *The children are both (of them) hungry.*

In the literature, the syntactic option of floating is usually only treated in relation to the three words *all, both* and *each*, and not with other quantifiers. According to Aldridge (1982:209), this can be related to the fact that these three quantifiers can all be used in appositional constructions of the type illustrated in (3:60). This is generally not possible with other quantifiers without a semantic change.

(3:60) *The men, all of them, carried shotguns. (my emphasis)*

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62 Long before the generativists, Poutsma (1914:336) talked about *all* being shifted to another place (thus expressing the same idea: that the floating quantifier is the marked type).
Floating quantifiers is a phenomenon that occurs in other languages as well. The leading Swedish reference grammar (Teleman et al 1999), for instance, refers to floating quantifiers in terms of their clausal function as “free predicatives” (Teleman et al 1999 II:249). This term is fairly free of associations of markedness. The authors also comment on the classification as floating quantifiers, suggesting that this term might be less appropriate since there is not always a corresponding variant with a noun phrase introduced by *all* or *both*, cf. example (3:61):

(3:61) *Kalle, Stina and Lisa have all left for China. (*All Kalle, Stina and Lisa have left for China.)*

So far, only NPs with a noun as head have been accounted for. The NP head can, however, also be a personal pronoun, as in (3:62) and (3:63). The alternative is a noun phrase including *of*63.

(3:62) *We are all black but we are not one people. (IND95) (cf. All of us are…)*

(3:63) *We all know what is acceptable. (IND95) (cf. All of us know…)*

As mentioned above, floating is seldom discussed with respect to singular NPs. With personal pronouns, however, floating is frequently used with the third person singular pronoun *it*, as in (3:64)64.

(3:64) *I realise now that *it all* seems very naive. (IND95) (cf. All of *it* seems… )

When the floating construction includes a personal pronoun, this may function as a grammatical object, as in (3:65), or a prepositional complement, as in (3:66). This is not possible when *all* is used with a noun (cf. 3:67 and 3:68).

(3:65) *The police gave *us* all little slips of green paper. (IND95) (cf. The police gave *all* of us…)*

(3:66) *He is the master of *us all*. (IND95) (cf. … the master of *all* of us.)*

(3:67) *The police gave the people all little slips of green paper. (cf. The police gave *all* of the people…)*

(3:68) *He is the master of *the people* all. (cf. …the master of *all* of the people.)*

63 In earlier forms of the English language, a construction with *all* preceding the pronoun was used, as in *All we are Australians* (Jespersen (1933:185). This construction does not, however, seem to be used in Present-day English.

64 Some NPs (e.g. *It all depends how you define major* (IND95)) can be ambiguous between an adverbial *all* reading (‘it depends entirely…’) and an NP quantifying *all* reading (‘all of it depends’) (cf. Footnote 61). In such cases we need more contextual information to decide which interpretation is the best one, and sometimes not even that may be enough.
The NP type where the quantifier is connected to a personal pronoun (we all) rather than a noun (the children all) is seldom dealt with in the literature on floating quantifiers; an exception is Quirk et al (1985:382). R. Hudson does not even regard it as a type of floating quantifier, since “it is clear that these words [personal pronoun + all, both etc.] constitute a phrase” (R. Hudson 1990:283). As far as the us/you/them all construction (i.e. the one used in object and prepositional complement function) is concerned, R. Hudson’s interpretation seems to be correct. When used in the subject function, however, we/you/they ... all can indeed occur in different positions with respect to the auxiliary, just like full NPs (with a noun as head).

A knock-out effect of a syntactic character (cf. 2.1.3) is involved in the choice between a floating quantifier and the of variant. In a minor clause such as a short answer, as in (3:69), only the variant with of is possible (Swan 1995:35, 111):

(3:69) ‘How many of her customers’, I wondered, ‘acquired their funds illicitly’? ‘All of them,’ she replied without hesitation. (IND95) (*They all.)

Investigations of quantifier floating have mainly concerned their syntax rather than their semantics. J. Hudson suggests that floating all is used for emphasis or intensification of a noun phrase, rather than for expressing quantification, as in I think the boys had all an advantage in that... (J. Hudson 1998:55). This remark could be compared with Labov’s ideas about all sometimes having an intensifying rather than quantifying function (see Section 3.3.3.2 above). It could further be hypothesised that with generic reference, the floating construction is more likely with a predicative verb that expresses a subjective attitude, as in (3:70) rather than an objective fact, as in (3:71).

(3:70) Men are all the same.

(3:71) ?Men are all mortal.

3.3.4.4 Issues pertaining to the choice between all and whole
This final section brings up various issues pertaining to the choice between all and whole, both universal quantifiers used (mainly) to express totality. Haspelmath (1995:379) shows their close relationship cross-linguistically: “all’ frequently comes from ‘whole’ by way of a kind of metaphor by which a plural aggregate is treated conceptually like a single object”. We will first look at three concepts, “type of quantity”, “countability” and “divisibility”, all three of which relate to NPs with plural, mass and singular count nouns in general. We will then proceed to the topic of animacy in NPs with collective nouns and geographical names before ending with a brief note on NPs with temporal nouns\(^65\).

\(^{65}\) In the discussion of number, countability, divisibility and animacy of the noun in the noun phrase, it should be noted that it is the combination of word and referent that is intended, even though either of these components may be more important than the other under certain circumstances. As Quine (1960:90ff) observes, qualities of this kind cannot be considered merely in
**Type of quantity**

It is important to remember that *all* (and indeed also *half*) has in fact two clearly different semantic functions, even though both relate to totality. These functions are manifested syntactically in the ability of *all* (and *half*) to combine with plural, singular and mass\(^{66}\) nouns. In contrast, *both* only combines with plural nouns\(^{67}\) and *whole* usually with singular nouns. Sweet (1898:85) makes an important distinction between “continuous quantity”, expressed by words such as *size, big* and *much*, and “discrete/broken quantity”, expressed by, for instance, *number, numerous* and *many*. The continuous interpretation (what Aldridge 1982:233 calls “unitary” meaning) of *all* is at play in noun phrases where the quantifier is combined with a mass noun, as in (3:72), or a singular count noun, as in (3:73). Here, *all* refers to the complete amount (cf. Putseys 1985:372).

(3:72) Mr Dalyell and other critics contend the Government is engaged in a cover-up to put *all* the blame for Lockerbie on Libya. (IND95)

(3:73) They are a mortal danger for Algeria and for *all the Arab world*. (IND95)

However, in plural noun phrases, as in (3:74), *all* generally refers to number rather than to amount. Here, we talk about discrete/broken quantity (what Aldridge 1982:232 calls “distributive” meaning\(^{68}\), i.e. ‘every member or separate part of’ (Putseys 1985:372).

(3:74) Here the cultural snobbery was confined to homosexuals, and *all the heterosexuals* were philistines. (IND95)

Sometimes *all* in a plural NP has unitary meaning, as in (3:75), where *all* does not refer to number of lives but rather to the “wholeness” of them.

(3:75) Many of these patrons will have known each other *all their lives*[….

(IND95)

It is only when *all* has unitary meaning that an NP with *whole* is a possible alternative (e.g. *their whole lives*). *Whole* always has unitary meaning and can therefore never be used in a plural NP with distributive meaning. *All* in plural noun

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terms of either words or referents, since different types of words (e.g. *shoes, footwear*) can be used to refer to the same “stuff” in the world.

\(^{66}\) “Mass noun” is only one of several different terms which have been used in the literature to refer to the group of nouns that are not countable. Other terms are “noncounts”, “uncountables” and “unbounded nouns” (Svensson 1998:12). This is perhaps not the best term, since not all uncountable nouns are masses (e.g. *furniture*) (ibid). However, since it is well established in the literature and less awkward than many of the other terms, it will be used throughout this study.

\(^{67}\) Some language systems make a further distinction between “dual” (‘two’) and “plural” (‘more than two’), as mentioned by Huddleston & Pullum (2002:334). They also declare that “there are few places in English where a feature dual is relevant (e.g. in *both* and *either*), but the number system itself simply contrasts singular and plural (‘more than one’).

\(^{68}\) The unitary-distributive distinction can be at play in NPs with *both* as well, even though the distributive meaning tends to be used more frequently (Huddleston & Pullum 2002:377).
phrases can be ambiguous, as in (3:76), in that it can either mean ‘all taken together’ (unitary meaning) or ‘all taken separately’ (distributive meaning). This is problem discussed in logic and formal linguistics (Jespersen 1933:185).

(3:76) All the boys are stronger than their teacher. (Jespersen 1933:185).

Countability and divisibility
There is another important distinction relating to quantifiers, the one between count and mass nouns, even though many words can be used with both interpretations, depending on the context (Huddleston & Pullum 2002:334). Syntactically, mass nouns are mainly used with singular agreement in verbs (The equipment is...), determiners (this equipment) and pronouns (the equipment ... it). Quantifiers like all and some are, however, used with both plural and mass nouns, (all books – all equipment, some books – some equipment), probably owing to the semantic correspondences between them. Barrett (1953:137), for instance, observes that both plurals and mass nouns are “divisible but not multiplicable, the only difference being that plural concepts can be divided exactly into complete units of themselves, while mass concepts can only be divided into fractions of themselves”. Similarly, what people perceive as mass nouns can in fact be interpreted as blurred aggregations of individual items, which become indistinguishable to our eyes or minds (P. Svensson 1998:107, 127).

Apart from temporal NPs, all is quite rare with singular count nouns, as in (3:77) (Quirk et al 1985:259f; Huddleston & Pullum 2002:375).

(3:77) For the first time ever, it did not buy all the new government debt [...] (IND95)

Whole is clearly the preferred alternative, whereas in combination with mass nouns “the whole of is less preferred and the whole is unacceptable” (Quirk et al 1985:260). Similarly, Sapir writes that:

In English, totality of an individualized object tends to be expressed as in ‘the whole table’, ‘the whole land was annexed’; and totality of an indefinitely massed object as in ‘all the milk has turned sour’, ‘all the land was inundated’ (1932:11).

Aldridge (1982:230) states that “whole cannot be used with mass nouns, except in the special sense paraphrasable as unmodified, pure”.

When all is used with a singular count noun, the noun tends to be divisible, just like plurals and mass nouns (Quirk et al 1985:259f; Swan 1995:35; Huddleston & Pullum 2002:375). Klégr (1987:28) describe divisible nouns as referring to “formless, extended and homogeneous” entities, typically used with all, whereas indivisible ones refer to “something viewed as having definite form,

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69 It is only in this meaning that all can be substituted by each or every (Each of the boys was stronger...).

70 Another similarity is that both can occur as the head of noun phrases without modification (Svensson 1998:19).
limits or articulation”, typically used with whole 71. Huddleston & Pullum (2002:375) provide the following reflection in relation to all and singular nouns:

Universal quantification with count singulars involves quantification over parts, just as in the non-count case. The morning [in all morning] is a period of time that can be subdivided into smaller periods, just as sugar can be subdivided into smaller quantities of sugar. The count singular use is therefore restricted to cases where there is some relevant subdivision.

One typical group of divisible singular nouns is collective nouns, such as family and government. All can be used with family, as in (3:78), since family can be thought of in terms of individual family members. (Quirk et al 1985:259).

(3:78) After the funerals, all the surviving family met for a meal. (IND95)

Another group is temporal nouns, which are divisible into smaller units, as in the example described by Huddleston & Pullum above. An NP such as *all her brother, however, would be ungrammatical (Huddleston & Pullum 2002: 375).

The concept of divisibility is not, however, entirely straightforward. A problematic issue is what can be regarded as divisible and what cannot. Collective and temporal nouns are clearly divisible, and a noun like book is quite easily imagined as divisible into chapters. On the other hand, most things can be regarded as divisible in some way; a chair, for instance, though generally thought of as indivisible, could be divided into the parts from which it has been constructed. One possible definition is that the noun should be divisible into similar parts72 (e.g. the chapters of a book or the tracks of a CD album) rather than into different parts (e.g. the body parts of a human being or the different tools in a tool kit). This is the definition adopted in the analysis of divisibility in the singular count nouns occurring in the corpus material (see Section 7.3.3). Quirk et al (1985:260) further claim that the possibility of combining all with divisible singular count nouns mainly concerns abstract nouns. They are more sceptical towards constructions including concrete nouns (e.g. ?all the book73), except (possibly) if the quantifier rather than the noun is stressed (as in I haven’t read ‘all the book). Quirk et al (ibid) give all of the book as a perfectly natural alternative to the whole book, so the all of variant is obviously quite different from the one without of (Quirk et al 1985:260). We will come back to this in Section 7.3.3.

As mentioned above, whole is the dispreferred alternative with mass nouns, since this quantifier generally is used for an indivisible unit (Quirk et al 1985:260). There are exceptions, however, such as the more or less fixed phrase the whole truth (Huddleston & Pullum 2002:375, see Section 7.3.2). Here, one

71 Cf. Sapir’s (1930:8f) classification of constructions with all and whole in terms of divisibility, where he gives all the table as an example of “a normally undivided existent”, whereas the whole table is regarded as “divisible into parts but resisting such division” (see Section 3.3.3.2).
72 Just as in the case of mass nouns, this similarity concerns kind rather than size.
73 Interestingly, Quirk et al (1985:260) categorise the noun book as a divisible noun, although regarding it as not compatible with all, because of its concrete nature. Klégr (1987:28), however, gives book as an example of an indivisible noun, “having definite form, limits or articulation”.

78
could perhaps argue that *truth* is seen as a definable, indivisible unit (generally the truth of statements concerning a particular case in court) rather than an unlimited mass. This is in line with Huddleston & Pullum’s (2002:337) explanation in terms of abstract vs. event instantiation of certain nouns. Some nouns, e.g. *discussion*, can have either an abstract mass interpretation, as in (3:79), or be used with an individuating function to refer to a particular event, i.e. a count noun, as in (3:80).

(3:79) Labour likes *all the discussion of community* – it’s territory the Tories do not know how to fight on. (IND95)

(3:80) *The whole discussion* about the exact amount cannot be concluded unless we have the next volume of the report […] (IND95)

**Animacy**

According to Dahl & Fraurud (1996:47), the systematic exploration of animacy and its relation to grammatical systems is a fairly recent research area. One example of this relation relevant to the present study is the link between syntactic function and animacy. Subjects (especially in transitive constructions) are more likely to be animate than objects, and indirect objects are more likely to be animate than direct objects (ibid:47ff).

Animacy is usually discussed either in terms of an animate–inanimate dichotomy or a hierarchy of degree of animacy, from HUMAN to ANIMAL to INANIMATE (ibid:47; Yamamoto 1999:2). Yamamoto (1999:14, 22) stresses that the hierarchy is best analysed as a prototype system, where “(individual) human beings” are at the core. The distinction between animate and inanimate is therefore fuzzy, and one reason, observed by Dahl & Fraurud (1996:62), is that “we have the possibility of sometimes treating inanimate entities as persons”. Typical examples are metonymical extensions of geographical names, as in (3:81), and collective nouns, as in (3:82).

(3:81) Now, *all America* hopes painful chemotherapy needed for the lung cancer will yield a similar result. (IND95)

(3:82) *Not all the Shadow Cabinet* were watching on Sunday evening. (IND95)

A noun of this type can sometimes be conceptualised as denoting a body of individuals that can initiate actions (e.g. make decisions), have emotions etc. Yamamoto (1999:16ff) refers to such cases as having “inferred animacy”. In his corpus investigation of animacy in English and Japanese, however, the tokens were mainly classified as inanimate, since “organisations and geographical entities/local communities are not living things but social units, and, in this sense, they are not ‘animate’ in the light of animacy in the literal sense or ‘animacy per se’” (ibid 138f). The only instance he analyses them as animate is when some individuals speak for their companies, countries etc. (ibid 139). In contrast, Levin (2001:126) classified all his tokens of collective nouns as animate, regardless of their syntax, i.e. if they occurred with singular or plural agreement in verbs and pronouns. In the literature on collective nouns, the difference between choosing
singular agreement, as in (3:83), and plural agreement, as in (3:84), is often described to be a difference in the speaker’s perspective, i.e. whether the focus is on the collective as a (typically administrative, thus inanimate) entity or the individuals in the group 74.

(3:83) Critics argue that the Government is not a neutral umpire, but is tied to a number of controversial policies […] (IND95)

(3:84) He says straight out that the government are all mafia. (IND95)

Similarly, a geographical name can either refer to a geographical or political area, as in (3:85), or to its inhabitants (or representatives of its inhabitants, such as a government or a football team) 75, as in (3:86).

(3:85) To make matters more confusing, this brand of Smirnoff, unlike all the others, is actually distilled in Russia. (IND95)

(3:86) Russia has offered up to 20,000 troops but has insisted that they will not come under direct Nato control. (IND95)

In my analyses of animacy in quantified NPs, I have followed neither Yamamoto nor Levin. Instead, I distinguish between animate and inanimate cases by looking at markers of animacy, such as verbs for thinking, feeling and acting (see Section 7.3.4). I also distinguish between “animacy proper” and “inferred animacy”.

Neither Dahl & Fraurud nor Yamamoto bring up syntactic variation in quantified NPs in relation to animacy, but both geographical names and collective nouns are brought up by the comprehensive reference grammars. There are three ways of forming NPs with geographical names and a totaliser: all Finland, all of Finland and the whole of Finland 76 (Quirk et al 1985:260). Quirk et al (ibid) further remark that the zero construction is rather formal and is used for the animate interpretation, where the NP referent is seen as the population, as in All Paris welcomed the General. Swan (1995:38) writes that “we can use all with place names […] to mean ‘every part of’, ‘the whole of’”, as in “All London was

74 The grammar of collective nouns is not a universal grammatical feature. In Swedish, for instance, where verbal inflection according to number is not used nowadays, the difference between the two perspectives can instead be expressed syntactically by means of inflection in a predicative adjective, as in Familjen var intresserad (‘The family was/were interested-SING’) vs. Familjen var intresserade (‘The family was/were interested-PLUR). In many languages plural agreement is never or very seldom used (Levin 2001:39f).

75 Yamamoto (1999:139) suggests that there is a difference between this construction and an NP with a nominalised adjective, as in after the Russians invaded Afghanistan (IND95), which has a higher degree of individuation than the NP in (3:86). Judging from the corpus examples presented here, this difference does not seem to be absolute, since there seems to be little difference between the two examples as far as individuation is concerned.

76 Note that whole can only be used in its nominal function (not *the whole Finland). A plausible explanation for this is that geographical names normally do not take a definite determiner when preceded by a modifying adjective (cf. *the beautiful Italy etc.), and whole is never used without a determiner.
"talking about her affairs". This definition is fairly vague, but the example implies that, like Quirk et al, he is, in fact, thinking of the population rather than the geographical area. *The whole of Paris* can be used in not so formal situations about the population, but more often is used for the area indicated by the geographical name (Quirk et al 1985:260).

We saw above that another area where animacy and grammar interact is in agreement with collective nouns. Agreement is usually examined with respect to verbs, personal pronoun and relative pronouns, whereas quantifiers are less seldom mentioned as agreement markers. Huddleston & Pullum (2002:375), however, suggest that *all* foregrounds the individual people in a collective, while *whole* has more of a unifying effect; therefore, it is more likely when the NP referent is regarded as a more abstract, inanimate entity. As a consequence, *all* should be more compatible with plural agreement of the predicate verb than *whole*. This is corroborated by Levin (2001:124) (see also Section 6.1).

**Time division in NPs with temporal nouns**

J. Hudson (1998:119) makes an interesting attempt at explaining the use of *all* vs. *the whole* in NPs with temporal nouns, viz. that *all* is only a valid alternative to *the whole* when the noun refers to a natural category of time (see Table 3.6).

### Table 3.6. Quantifiers in NPs with temporal nouns (based on J. Hudson 1998:119)

<table>
<thead>
<tr>
<th>the whole</th>
<th>all/the whole</th>
<th>the whole</th>
</tr>
</thead>
<tbody>
<tr>
<td>second, minute, hour</td>
<td>morning, evening, afternoon day, night</td>
<td>decade, century</td>
</tr>
<tr>
<td>week</td>
<td>month(^{77})</td>
<td></td>
</tr>
<tr>
<td>season, winter, summer, term year</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

“Days, nights, mornings and evenings, months, seasons, and years can be directly perceived without measuring instruments since they are non-arbitrary measurements of time defined according to the movements of the planets” (J. Hudson 1998:119). Although these words and concepts are perhaps “natural” to a higher extent, a human is needed to impose a somewhat arbitrary limit: for example, when does a morning begin and end? This problem is not dealt with by J. Hudson. J. Hudson further assumes that the “natural” nouns have a longer history than the man-made ones. Why *all* should be more natural with the natural time expressions is not quite clear from her argumentation (J. Hudson 1998:120). The explanation of the fact that *week* and *term* can be used with *all* is, in Hudson’s view: that *week* is based on two other natural categories, days and nights, and that *term* is based on the natural seasons (J. Hudson 1998:119). My viewpoint is that *decade* and *century* are based on natural categories in the same way as *year*. However, nouns based on another natural category, such as *century, decade, term* and *week*, were categorised as arbitrary.

\(^{77}\) *Month* is a borderline case, but since it is related to the rotation of the moon, it is categorised as natural by J. Hudson.
3.4 Summary

This chapter has provided an overview of how the English noun phrase, quantifiers in general, and (with more specification) *all*, *whole*, *both* and *half* in particular have been described and discussed in the linguistic literature. This has been done both from a syntactic and a semantic point of view. The first section focused on the noun phrase: its different parts (head, determiners and modifiers) and the many syntactic functions that the NP can take on, e.g. subject, object, prepositional complement and adverbal. The section also presented an alternative analysis of the noun phrase, as a determiner phrase (the DP-analysis), whereby the determiner is seen as the most important part. The final sections discuss some central concepts associated with the noun phrase: reference (specific and generic), definiteness and animacy. Section 3.2 gave a brief outline of various aspects of quantification within three theoretical branches of linguistics: formal semantics, cognitive grammar and generative grammar.

Section 3.3 examined *all*, *whole*, *both* and *half* from various perspectives. We first looked at the words diachronically and established the first attestations of the variants in the OED. The historical part also proposed a hypothesis for a grammaticalisation process for *half the*. Next, some syntactic aspects, classification problems, and syntactic differences between the words were considered. I concluded that in spite of *all*, *both* and *half* often being treated as if they were very similar, there are, in fact, several syntactic differences between them.

We then moved to semantic aspects, the first of which was definiteness. *All*, *whole*, *both* and *half* are sometimes labelled “indefinite”, sometimes “definite” and sometimes neither in school and reference grammars. It is possible that definiteness is not intrinsic to the quantifiers themselves, but rather a quality that depends on the context. The section on totality showed that there may be other semantic and pragmatic functions for *all* besides the totality meaning proper, such as a large-quantity meaning (my suggestion) and an intensifying meaning (Labov and others). The third part brought up the different variation patterns analysed in the present study and discussed them from syntactic and semantics perspectives. The topics here concerned, among other things, variation between NPs with *of* and NPs without *of*, floating quantifiers, countability, and animacy.

Quantifiers in general and *all* in particular involve many interesting aspects. We will have reason to return to the topics raised in this chapter when analysing the linguistic factors in Chapter 7. Before the presentation of the results of the corpus investigation, the next chapter provides an overview of the material and method used for the study.
4. Method and material

4.1 A corpus-based approach

Corpora, that is collections of authentic text, have a long and established history of use in linguistic research. In the sixties some pioneers started to use computers for the storage of corpora. It is only in recent decades, however, that computerised corpora have become widely available. Corpus linguistics has experienced a veritable boom since then; more and larger corpora have been created and search software has become more sophisticated yet easier to use. As a direct consequence, more and more linguists within various traditions use computerised corpora. The common denominator is that corpora help us detect facts about language use that our intuition fails to notice (cf. Sinclair 1991:39; Biber et al 1998:3). This is particularly important when the researcher’s native tongue differs from the language being investigated.

There is a plethora of areas within linguistics where corpora can be a useful tool: syntactic and lexical variation and change, lexicography, text linguistics and many more. A practical application is the improvement of reference works and teaching materials. The pedagogical aspect has been emphasised by e.g. Mindt (1997:50), who states that “corpus-based studies of grammar geared to foreign language teaching can do much to bring the teaching of English into better accordance with actual language usage”. Frequency analyses will, for instance, help writers of materials for lower levels decide what features should be given more focus than others (Kennedy 1992:365f; 1998:290; Sinclair 1997:31) and corpus-based information about, for instance, language variation can help advanced learners towards near-native proficiency.

There can also be dangers in using corpora. The speed with which computers produce thousands of examples, the enormous number of words behind the figures and the neat concordance lines provided may give the incorrect impression that what appears on the computer screen is the whole truth. However, we must not simply replace one authority (a dictionary or a grammar) with another (the corpus); results should always be interpreted with caution and a critical mind. The question of representativeness, for instance, is an important and difficult one (cf. Kennedy 1998:72). Chomsky certainly had a point when, in Syntactic Structures, he criticised corpora for not being representative: “any natural corpus will be skewed” (1957:159). Indeed the corpora of today are much larger and more complex than they were at that time, but it is still impossible to claim that a corpus is representative, since the very concept of representativeness is so complicated to define. Who, for instance, speaks a kind of English that is...
representative of the rest of the English-speaking population? Do we produce and receive more spoken language or more written language (Kennedy 1998:68ff)? However, for the same reason, it is equally impossible to claim that a corpus is not representative. The choice that is made when a corpus is created, or when a particular corpus is chosen for a particular study, is always to some extent a subjective choice from the total (and endless) population of linguistic utterances. Still, in a sense, a corpus at least yields more objective results than if we rely exclusively on intuition.

Ever since Chomsky’s *Syntactic Structures*, corpus linguists and so-called “armchair linguists” (cf. Fillmore 1992:35), those who rely on introspective data only, have argued about which method is more useful. Another issue of debate concerns whether corpus linguistics involves a theory in its own right, or whether it is just another linguistic method. Kennedy (1998:7) is one of those who hold that corpus linguistics is not a theory, but rather a tool that can be used by scholars within many different schools of linguistics. This view is questioned by Tognini-Bonelli (2001:1), who argues that the use of corpora has offered linguists a quite new understanding of language. She distinguishes between two types of corpus linguistics: corpus-based research and corpus-driven research(cf. G. Francis 1993). Within the first type, towards which Tognini-Bonelli (2001:65ff) is critical, corpora are mainly used for corroborating pre-existing theories, simply replacing introspective data with something else. In studies of this kind, she maintains, corpus data that do not fit the researcher’s hypotheses are often ignored. Tognini-Bonelli (2001:84ff) instead advocates the use of corpus-driven research, where the researcher starts out without pre-existing theories (i.e. an entirely inductive method). The corpus is then in focus from the start and the researcher is committed to the integrity of the data. If the data does not fit one’s hypothesis, then the hypothesis must be changed. In practice, an entirely inductive corpus approach is virtually impossible, since each question one asks the corpus must originate in some previous ideas (Stubbs 1996:46f). Most linguists (including myself), however, tend to use the term “corpus-based” with less negative connotations than Tognini-Bonelli does, regarding a study as corpus-based if corpus data are used to either corroborate or refute a hypothesis.

In this investigation corpora are used in two different ways. In some cases, I start out with previous claims made by other linguistic scholars (e.g. Quirk et al 1985) or writers of usage guides (e.g. Swan 1995), or I have a hypothesis based on my own intuition. The corpus data are then used to corroborate or refute these claims and hypotheses. In other cases, I go direct to the corpus data to see whether previously not discovered patterns can be found. The second method of working with the material is obviously more corpus-driven (in Tognini-Bonelli’s terminology). However, also in those cases where there is a pre-existing hypothesis, I am highly committed to the integrity of the data. Consequently, if the data do not fit the hypothesis, this is accounted for and discussed.
4.2 Corpus material

Five different corpora were used, for two reasons: (i) in order to compare regional varieties and spoken versus written English, and (ii) in order to minimise the risk of obtaining skewed results with respect to overall distribution, regardless of region or medium, owing to bias in a particular corpus. Table 4.1 shows the different corpora used.

Table 4.1. Corpora used in the study

<table>
<thead>
<tr>
<th></th>
<th>American English</th>
<th>Australian English</th>
<th>British English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corpus Size</td>
<td>Corpus Size</td>
<td>Corpus Size</td>
</tr>
<tr>
<td>Conversation</td>
<td>LSAC 5 M</td>
<td>-</td>
<td>BNC 8 M</td>
</tr>
<tr>
<td>Newspaper text78</td>
<td>NYT95 53 M</td>
<td>SMH95 37 M</td>
<td>IND95 43 M</td>
</tr>
</tbody>
</table>

Abbreviations: LSAC = Longman Spoken American Corpus; NYT95 = The New York Times on CD-ROM, 1995; SMH95 = The Sydney Morning Herald on CD-ROM, 1995; BNC = The British National Corpus (the dialogue component); IND95 = The Independent on CD-ROM, 1995; M = million words.

There are several reasons for using newspaper corpora (or archives as, for instance, Kennedy (1998:57) prefers to call databases that were not compiled for linguistic purposes). First, I was interested in looking not just at the two most widely explored regional varieties of English (British and American), but also at another variety. At the time of the material collection, *The Sydney Morning Herald* was the only non-British/American English material available to me. A second reason was that newspapers, being read by so many people, are likely to be influential language-wise. As Bell (1991:1) writes: “Media are dominating presenters of language in society. Within the media, news is the primary language genre.” Biber et al (1999:16) point to the usefulness of newspaper corpora in the research into regional variation, since they “provide one of the best reflections of American English v. British English dialect differences79 in writing”. They are therefore more suitable than, for instance, academic prose, which is “typically written for an international audience with relatively little influence from the national dialect of the author”. A further reason was that the two existing comparable corpora of recent British and American written text (FLOB and Frown80) were too small to yield enough tokens for some of the variables of interest in this study.

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78 The figures on number of words in the newspaper corpora are from Minugh (2000:63).
79 It is hoped that IND95, although published in England, will give a sufficiently fair reflection of the use of quantifiers in the whole of Britain, not just in England, and that, similarly, NYT95 and SMH95 will give a fair picture of quantifier use in the U.S. and Australia.
80 These two corpora were compiled according to the same principles as the well-known LOB and Brown corpora, one-million-word corpora with material from the 1960s. FLOB and Frown therefore comprise the same text categories but with material from the 1990s (also see 2.4).
Two corpora of spoken English were used for comparison between the written and spoken media: the Longman Spoken American Corpus (LSAC) and the greater part of the spoken component of the British National Corpus (BNC). The spoken component of the BNC is divided in two different ways. First, the corpus contains one “demographic” part, which mainly consists of every-day conversation, and one “context-governed” part, which is comprised of more planned talk in the form of lectures, sermons, business meetings etc. Second, the corpus is divided into “dialogue” (both natural conversation and context-governed conversation) and “monologue” (Aston & Burnard 1998:31). LSAC contains only dialogue material, both natural conversation and more context-governed text types, which cannot be separated by the researcher. As a consequence, I chose to use the dialogue part of the BNC, thus excluding monologue, rather than using the demographic part, which would have resulted in all context-governed conversation having been excluded. This decision is an attempt at using corpora of spoken British and American English that are as comparable as possible, given the material available. Unfortunately, no corpus of spoken Australian English was available at the time of the material collection.

There are a great number of different registers of both written and spoken language (cf. e.g. Biber 1988) that could have been used as material in the present study. Nevertheless, conversation and newspaper language are both, as pointed out by Biber et al (1999:9), among the most familiar kinds of speech and writing, since most people regularly talk spontaneously to other people and (at least in the western world) read newspapers. In many ways, Biber suggests, they are each other’s opposites, newspapers being carefully edited, relatively objective presenters of information and conversation being spontaneous, unedited, personal and interactive (ibid). On the other hand, newspaper text is generally more similar to conversation than some other written channels, and considered a “fast” genre, where linguistic changes are reflected relatively quickly (Mair (1998:155, see Section 2.4). Furthermore, newspapers contain a great deal of “spoken” (although often edited) language in the form of dialogue from interviews. One should also remember that both conversation and newspaper text contain a number of different subregisters with different language styles.

4.3 Procedure

4.3.1 Corpus queries

The first step was to find quantified noun phrase types exhibiting syntactic variation. A number of school and reference grammars were consulted, and Quirk et al (1985: 253f, 376f, 388) proved to be the most useful source in this respect. After an initial pilot study, a list of corpus queries was compiled. The complete list of variables is to be found in Appendix A. The following list is a less fine-grained presentation of the different types of variables analysed.

81 Another objective and carefully edited register is of course academic prose, but no large corpus of written American English is yet available.
• *all/whole, both* and *half* in combination with a common noun (singular count, mass or plural) (e.g. *all the children* vs. *all of the children*, *both boys* vs. *both the boys*, *half my book* vs. *half of my book*)

• *all*, *both* and *half* in combination with a demonstrative pronoun (e.g. *all these* vs. *all of these*)

• *all* and *both* in combination with a personal pronoun (e.g. *we (…) both vs. both of us*)

• *half* in combination with the indefinite article and a singular noun or numeral (e.g. *half a bottle* vs. *a half bottle*)

• *all/whole* in combination with a geographical name (e.g. *all China* vs. *all of China* vs. *the whole of China*)

• *all/whole* in combination with a temporal noun (e.g. *all morning* vs. *the whole morning* 82)

• *both* in combination with a noun expressing body parts or kinship (e.g. *both (of my) eyes*)

The group of NPs with temporal nouns is a subgroup of the variable with *all/whole* and singular count nouns. They were separated from the larger group owing to their showing a different variation pattern, including a variant without the definite article, as in *all morning*. The same applies to *both* with a noun for body parts or kinship, since in this case a possessive determiner is the only possible alternative, not the definite article.

Searches were carried out by means of the concordance program *Wordsmith* and/or by means of special software coming with certain corpora (see Appendix C for details about the different search procedures). Since all the corpora used (except the BNC) are syntactically untagged, the searches were made for lexical words (e.g. *all + of + the*). Virtually all standard-English variables involving the quantifiers *all, whole, both* and *half* accounted for by Quirk et al (1985) will be covered in the present study. Exceptions are described in Section 4.3.2 and Appendix B.

### 4.3.2 Exclusions

Some variables, variants and tokens were excluded for various reasons. First, one whole variable was excluded:

• *all*, *both*, *half/*of/* + PROPER NOUN IN THE GENITIVE + COMMON NOUN* (as in *all /*of/* John’s friends*)

The reason is that, in the case of *all*, it would be very difficult to extract tokens of the first of the variants (simple *all*) from the corpus material, since *all* is such a frequent word and there is no other keyword to use in a corpus query. This problem would not have existed, had the corpora used been tagged for syntax. In

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82 These are words that express particular units of time, so the group does not include *all the time.*
consistency with the all variable, instances of both and half in NPs with proper nouns in the genitive were also excluded from the study.

Second, in one of the variables (all/of + PLURAL NOUN), one possible variant was excluded for the same reason:

- simple all + PLURAL NOUN (as in All children came to school today)

Most frequently, this construction has generic reference (cf. Quirk et al 1985:259), but it can also be used with specific reference, as in the example above. In those cases, it is an alternative to the all/of the variants. One possible variant was also excluded in two other variables:

- DETERMINER + PLURAL NOUN … all (floating quantifier) in subject function (as in The children were all happy), as an alternative to all + DETERMINER + PLURAL NOUN and all of + DETERMINER + PLURAL NOUN
- the + PLURAL NOUN … both, (floating quantifier) in subject function (as in The children were both happy), as an alternative to both + PLURAL NOUN, both the + plural NOUN and both of the + PLURAL NOUN

In all the cases above, including them in the study would have entailed too much manual work with semantic analysis of the co-text. For this reason, they were excluded. The fact that not all alternative variants have been included need be taken into account in the interpretation of the results.

Third, a number of tokens generated by the corpus queries had to be excluded because their syntactic structure did not correspond to the structure investigated, as exemplified in (4:1):

(4:1) Last week it happened, but [not at all] [the way] I had expected. (SMH95)

Similarly, in the case of half a/an vs. a half, those tokens were excluded where the noun phrase included a noun in the genitive (not a measurement word) and the quantifier determined the head noun of the matrix NP rather than the genitive noun, as in (4:2)

(4:2) But in the experiment, adolescent hamsters were placed in the cage of a mature one, thus violating its territory, for an hour a day over a week’s time – about half a hamster’s adolescence. (NYT95)

The reason for the exclusion is that the a half variant cannot be used in this case (*a half hamster’s adolescence). Cases of a half X were excluded in constructions like pounds 3.50 a half-pint, since the indefinite article is here used in the same way as an in 20 miles an hour etc. The half a/an variant is out of the question and competition cannot occur.

Fourth, tokens where competition was ruled out by a knock-out factor were also excluded from the statistics, since the relationship between variants is always 100–0 in such cases (see Section 2.1.3). All of these cases are accounted for in Appendix B. One of these is exemplified in (4:3). Here, some requires an of construction, with the consequence that all the victims cannot be used.
(4:3) Fire experts say that if the door had been accessible or the sprinkler system had worked, *some or all of the victims* might have escaped before being overcome by smoke and carbon monoxide. (NYT95)

Fifth, a number of tokens were excluded from the statistics as fixed expressions (see further Section 2.1.4), as in examples (4:4) and (4:5).

(4:4) Walter and his crew, featuring Augustin Rodriguez as his ultra-smooth sidekick, start searching for Gwen *all the while* investigating a case of international computer bank fraud. (SMH95)

(4:5) Getting you into the shop is *half the battle*. (SMH95)

The basis for the classification as fixed expressions was (i) that they could be found in one or more dictionaries consulted, and (ii) that there was no variation in the corpus material. All fixed expressions are accounted for in Appendix B. As mentioned in Section 2.1.4, some expressions, even though regarded as fixed expressions in dictionaries, were included since they showed variation in the corpus material. NPs that belong to this group are also accounted for in Appendix B.

Finally in the variable with *all* and a personal pronoun (e.g. *all of us* vs. *we ... all*), a number of tokens were excluded for practical reasons. This was the case when the NP included a postmodifier, since, in the floating quantifier variant (*we... all*), the search procedure would be complicated owing to the fact that a postmodifier can be infinitely long. Therefore, all tokens (of both variants) were excluded when containing a postmodifier.

**4.3.3 Sampling**

For the comparison of frequencies of syntactic variants overall, regionally and according to (written or spoken) medium in Chapters 5 and 6, all tokens found and considered relevant were used. In the majority of the linguistic factors presented in Chapter 7, however, samples from the total “population” of the tokens found in the British and American newspaper corpora were used in all cases where a variable yielded more than 100 tokens per corpus and variant. The greater part of the study of linguistic factors required manual analysis of each individual token, and it would have taken far too long to go through all these thousands of tokens.

Bell, when sampling newspaper language, used a method referred to as “the constructed” week:

> [...] the technique involves selecting days by a random process from several weeks to make up a composite week of days from

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83 In order to avoid using the word *sample* ambiguously, I use “population” to refer to the entire material (of a particular variable) from the two newspaper corpora, fully aware that this is a sample itself, i.e. a sample of the total population of all linguistic utterances.
five (for a Monday to Friday universe) or six (Monday–Saturday) different weeks (Bell 1991:23).

Bell’s method could have been used with the newspaper corpora. For the research conducted in this study, however, it would have been unnecessarily complicated; words like all, both etc. are not likely to be affected by the time of the year, whereas certain vocabulary (e.g. relating to Christmas or concerning sports practised only during parts of the year) definitely can be. Instead the following sampling method was used:

- For each variable (e.g. \[ all + PLURAL\ NOUN \]), a stratified\(^{84}\) sample of 200 tokens per variant\(^{85}\) was created. That is, if a variable comprised two variants (e.g. all and all of), there were 400 tokens in the samples, if the variant comprised three variants (e.g. all, all of and whole), 600 tokens were sampled and so on.

- For practical reasons, not all the five corpora were used for the samples. However, half of the tokens (100 per variant) were taken from The New York Times and half from The Independent. Factors that seem to influence the choice of variant were discernible in more than one corpus. The reason for choosing the newspapers rather than the spoken corpora was that spoken text is often more complicated to analyse, especially from a syntactic point of view.

- In order to randomly select tokens for each variant (e.g. \[ all + PLURAL\ NOUN \]), all tokens (the keyword plus its surrounding text) from each of the two newspaper archives were collected in one file each. These files were then resorted (in the Wordsmith search program) in alphabetical order after the fifth word to the left of the keyword. Thereafter, the first 100 tokens of each concordance list were extracted.

The reason for using stratified samples rather than proportional samples is that for many of the variables one of the variants was in an overwhelming majority. Had a proportional sample (for instance 400 tokens per variable) been used, there would have been very few tokens of some of the variants (e.g. 390 all and 10 all of). This would probably have obstructed observations about the possible influence of linguistic factors on the choice of variant.

Besides the sampling of tokens from the entire corpus material, another kind of exclusion was carried out for the analysis of linguistic factors. In order to be able to take as many factors as possible into account, a selected choice of variables from Chapters 5 and 6 was made. For instance, in the case of NPs with personal pronouns (all of us vs. we/us all), only the tokens with all (not those with

\[^{84}\] In a stratified sample the number of tokens is the same for each variant, regardless of how many tokens there are in the total population. The opposite is a proportional sample, where the proportions between variants are the same as in the total population.

\[^{85}\] In cases where a certain variant occurred less than 200 times, all tokens were used, and the analysis was adapted to this circumstance.
both) were included. Similarly, in NPs with demonstrative pronouns as heads, only the tokens with all were included. All excluded cases are accounted for in Section 7.1.

4.3.4 Data analysis

The overall frequency distribution is presented in Chapter 5. Here, the main purpose was to discover the predominant form of each variable, and to assess whether some variants are very rarely used. As mentioned above, a large number of examples were excluded as fixed expressions. In order to ensure that these deletions did not affect the results, I conducted a few frequency counts where the fixed expressions were included. Chapter 6 presents the results of the studies of non-linguistic factors: the first part compares British, American and Australian English, and the second part deals with the spoken and the written material.

The investigative process had the following format. After extracting samples of 200 tokens per variant (half British, half American), all the sample tokens were imported into a database program (FileMaker Pro). Here, all the tokens were classified in terms of various linguistic aspects (e.g. syntactic function in the clause, the presence or absence of focus markers). For each variable, the distribution of syntactic variants in one category was compared with the distribution in the other category or categories. For instance, if we look at a certain factor (e.g. the presence of X) and find – in the two 100-tokens samples – that the distribution between all and all of is 40-20 in one category (presence of X) and 60-80 in the other (absence of X), it can be assumed that there is a positive correlation between all and the first category and between all of and the second category (see further, Section 7.1). According to the null hypothesis (the expected frequencies provided there is no correlation at all between categories and variants), in each category the number of tokens would be the same for each syntactic variant. In other words, judging by the data, this particular factor (presence of X) influences the choice of variant.86

Now consider the following – constructed but hopefully clarifying – example. In a stratified sample of 400 tokens from the variable [all /of] + PLURAL NOUN, 200 tokens are of the of-less all form, whereas 200 are of the all of form. In the total ”population” (10,000 tokens), there are 90% all (9,000 tokens) and 10% all of (1,000 tokens). The sample tokens are then analysed for the presence of focus markers (such as nearly preceding the quantifier) in the NP or its near co-text. The analysis yields the result presented in Table 4.2.

86 When there were fewer than 100 tokens of a particular variant in a particular variable, the frequencies were normalised to 100 on the basis of their internal distribution into different categories. For instance, if one variant comprises only 50 tokens and these are distributed over two categories (14 in category A and 36 in category B), the normalised frequencies will be 28 and 72 respectively. This measure makes it easier to compare the low-frequency variants with the 100-token samples of higher-frequency variants. We must, however, be aware that normalised frequencies may give a skewed picture of reality. For the chi-square testing, only absolute figures were used.

87 Observe that, as mentioned in Section 2.1.2, only the correlations observed in both American and British English are presented in tables and graphs, while correlations found in just one variety are merely mentioned in the running text.
Table 4.2. Outcome of an analysis of the correlation between the presence of a focus marker and all (constructed example)

<table>
<thead>
<tr>
<th></th>
<th>all</th>
<th>all of</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>+FM</td>
<td>50</td>
<td>25%</td>
<td>150</td>
</tr>
<tr>
<td>−FM</td>
<td>150</td>
<td>75%</td>
<td>50</td>
</tr>
</tbody>
</table>

+FM = the presence of a focus marker, −FM = the absence of a focus marker

At first sight, the figures suggest that all of is more frequent than simple all under the +FM condition (when a focus marker precedes the quantifier). This would, however, be an erroneous conclusion. If it is assumed that the distribution of the sample reflects the distribution of the total “population”, simple all would still be more frequent in the total “population” (25% of 9,000 is 2,250) than all of (75% of 1,000 is 750) under the +FM condition.

What the figures do show is that the +FM condition promotes the use of all of. Under the +FM condition, all of is used in 75% of the cases, while according to the null-hypothesis it would be used in 50% of the cases. Similarly all is used in 75% of the cases under the −FM condition. In other words, it could be argued that there is a positive correlation between +FM (presence of FM) and all of and a negative correlation between +FM and simple all. This correlation may not have been so easily spotted if absolute figures had been used, since simple all is so much more frequent than all of. In Chapter 7 the same procedure will be used with real figures.

The results of the analyses of linguistic and non-linguistic factors were tested by means of the chi-square significance test. This test checks the likelihood of a correlation between a variant and a factor category occurring by chance (in which case the null-hypothesis is not falsified) or not. If the test yields a small p-value (e.g. 0.01) there is less than a one-in-100 chance that a correlation has occurred by chance. Thus a relationship between factor and variant may exist. The lower the value, the smaller the likelihood that the difference is a matter of chance, but the significance borderline is often placed at 0.05 (one chance in 20).

One problem of using significance tests with very large figures is that even small differences may seem to be highly significant. On the other hand, this could also be regarded as something positive, since with a very large material one can detect differences that would have gone unnoticed had the material been smaller. It is important to keep in mind, however, that the only thing that statistical significance really tells us is that it is unlikely that a difference in frequency is random; it says nothing about whether this difference is important or about how it could be explained.

Besides yielding information on which correlations between variants and factors were statistically significant (and therefore relevant to discuss), the chi-square test can be used to compare the relative strength of different correlations (see Chapter 8). The basis for the claims about relative correlation strength was

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88 As mentioned in Footnote 87, only correlations occurring in both IND95 and NYT95 were included in the presentation of linguistic factors. The figures from the British and the American material were conflated in the significance test, and the respective frequencies were sometimes quite different even though the same tendency was observed in both corpora.
the phi coefficient, which is the standard instrument for measuring the strength of correlations with this type of data. A table in Appendix E provides the exact phi coefficient for all the statistically significant correlations.

For the type of analysis used in this study, where the isolated effect of one factor category at a time was investigated, the chi-square test was best performed on four-cell tables. In many cases in the material, there were only two variants and two factor categories, which makes the significance testing straightforward; if one variant correlates with one factor category, the other variant automatically correlates with the other, as illustrated in Table 4.3.

Table 4.3. Four-cell table used for testing the correlation between two variants and a two-category factor

<table>
<thead>
<tr>
<th></th>
<th>Variant X</th>
<th>Variant Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor category A</td>
<td>+</td>
<td>–</td>
</tr>
<tr>
<td>Factor category B</td>
<td>–</td>
<td>+</td>
</tr>
</tbody>
</table>

An example of this is the correlation between the all + PLURAL NOUN variable (two variants: all and all of) and the “presence of a focus marker” factor (two factor categories: +FM and −FM), where all of correlates with +FM and all correlates with −FM.

In many cases, the picture was more complex, either because there were three or more variants (four with all/whole + SINGULAR COUNT NOUN) or because there were three or more factor categories. In order to be able to use four-cell tables in the test, variants or factor categories (and in some cases both) had to be conflated.

When there were more than two variants and a two-category factor and I wanted to measure the correlation between Variant X and one of the factor categories, the remaining variants were conflated, This is illustrated in Table 4.4.

Table 4.4. Four-cell table used for testing the correlation between Variant X and Factor category A with a two-category factor

<table>
<thead>
<tr>
<th></th>
<th>Variant X</th>
<th>Variant Y+Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor category A</td>
<td>+</td>
<td>–</td>
</tr>
<tr>
<td>Factor category B</td>
<td>–</td>
<td>+</td>
</tr>
</tbody>
</table>

Using this methodology we can say something about the significance and strength of the correlation between Variant X and Factor category A. An example is all/whole + MASS NOUN (three variants: all, all of and whole) in relation to the presence of a focus marker (two factor categories: +FM and −FM), where +FM correlated with all of.

When there were only two variants but a multi-category factor, I conflated those factor categories that were not in current focus and could then say something about the correlation between Variant X and Factor category A (see Table 3.5).
Table 4.5. Four-cell table used for testing the correlation between Variant X and Factor category A with a multi-category factor (only two variants)

<table>
<thead>
<tr>
<th>Variant X</th>
<th>Variant Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor category A</td>
<td>+</td>
</tr>
<tr>
<td>Factor category B+C etc.</td>
<td>–</td>
</tr>
</tbody>
</table>

An example is the correlation between variants in the variable *all + PLURAL NOUN* (two variants: *all* and *all of*) and syntactic function, where the corpus material included tokens in six categories; however, only two of them (subject function and prepositional complement function) correlated positively with variants. So when, for instance, testing the correlation between *all* and the subject function, all other functions (object, prepositional complement etc.) were conflated.

Finally, the most complicated case occurs when there are both more than two variants and more than two factor categories, as in Table 4.6. Here, both variants and categories have to be conflated.

Table 4.6. Four-cell table used for testing the correlation between Variant X and Factor category A with a multi-category factor (more than two variants)

<table>
<thead>
<tr>
<th>Variant X</th>
<th>Variant Y+Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor category A</td>
<td>+</td>
</tr>
<tr>
<td>Factor category B+C etc.</td>
<td>–</td>
</tr>
</tbody>
</table>

An example is the correlation between the *all/whole + GEOGRAPHICAL NOUN* variable (three variants: *all*, *all of* and *the whole of*) and syntactic function. When testing the correlation between the *all* variant and the subject function, all other functions were conflated, and so were the *all of* and *the whole of* variants.

A few more observations should be made. First, as mentioned above, in most cases where there were more than two variants, each variant in turn was tested in relation to a particular factor category. In a few cases, however, two variants exhibited very similar correlation patterns and no separation was made. The reason is that clear correlations could otherwise appear as less significant and also relatively weaker (compared with other correlations). An example is the *both + PLURAL NOUN* variable, where *both the* and *both of the* were conflated in the significance testing of a correlation with the modifier factor, since they had very similar correlation patterns. Had *both the* and *both of the* been tested in isolation, simple *both* and *both of the* would have been conflated in the first case (*both the*) and simple *both* and *both the* in the second (*both of the*); consequently this would have weakened the significance and strength of the correlation.

Second, when analysing correlations with one variant and/or factor category at a time, the same data were used several times in cases where there were more than two variants and/or factor categories. If the <0.05 alpha level is used in the chi-square test, we accept that there is a one-in-20 risk that the correlation has occurred by chance. If that should be the case, and the same data is used more than once, this happens again and again. To minimise the risk of repeatedly re-
porting on correlations which have occurred by chance, the <0.01 level was applied as a standard. Instances where only the <0.05 level was reached were included in the presentation, but marked as less statistically significant.

Third, it should be kept in mind that the figures used for the chi-square test are total figures in the case of variation according to region and medium. Conversely, in most of the cases of linguistic factors they are 200-token samples for each variant (100 per corpus). In those cases where the material comprised fewer than 200 tokens of a particular variant, normalised frequencies were used in the bar charts and tables in Chapters 7 and Appendix D (see Section 7.1). However, only absolute figures were used when testing correlations by means of the chi-square test. One reason for this is that it must always be certified that the expected frequency in a cell is more than. Normalised frequencies can give a skewed picture.

### 4.4 Methodological problems

One very general problem that any corpus linguist interested in language variation will encounter is how to find comparable corpora of, for instance, different regional varieties of a language. Since it would be too expensive and too time-consuming for each researcher to compile a special corpus for every research question, one will often have to make do with already existing corpora, compiled according to different principles and sometimes perhaps not very comparable at all (cf. Lindquist & Levin 2000, Kilgarriff 2001). The problem has to be taken into account in the interpretation of results.

Investigating spoken language by means of corpora is another problematic area. Corpora of spoken material are much less frequent. In most cases, they are smaller and not so easily available as written corpora, owing to extensive transcription costs. Furthermore, transcription is not always entirely trustworthy, as a certain amount of hearing and spelling mistakes can be included. It can further be discussed how “natural” corpora of “natural conversation” really are, when recordings have been made non-surreptitiously, for ethical reasons, as is the standard procedure today. To what extent do people change their linguistic behaviour when they know that they are being recorded? This fact ought not to be particularly important in a study of variation concerning items like those analysed here. One would expect that the “tape-recorder factor” would be more influential when it comes to participants’ use of certain vocabulary items, such as swearwords or stigmatised non-standard grammatical features (such as double negations).

A problem regarding the written text material is the fact that many newspapers and publishing companies use style guides (particular to each “house style”), thereby standardising their authors’ language. This too has to be remembered in variation research. On the other hand, if one finds variation with respect to the particular variable at issue, one must conclude that house style editing has not taken place or has not been effective. The newspapers used as material were contacted and asked about their use of style guides. Only The New York Times

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89 Misprints and spelling mistakes may of course occur in written sources as well.
answered (in spite of repeated queries to *The Independent* and *The Sydney Morning Herald*). Their style guide did not include anything that concerned the use of quantifiers investigated in this thesis.

Another drawback of using newspaper corpora to look at regional variation (related to the previous problem) is that most newspapers, as pointed out by Bell (1991:12), use material not produced by the papers’ own journalists, but acquired from news agencies or other newspapers. The material may come from other parts of the English-speaking world, skewing the quantitative data on regional variation. It is also the case that local writers rewrite material from other papers. Furthermore, part of the text material in a newspaper corpus consists of spoken dialogue written down (in interviews). Judging from the material used here, there are few differences in the use of quantifiers between spoken and written English (see further Section 6.2). One could of course speculate as to whether there would have been more differences had another type of written language been analysed in the study.

The use of newspaper text on CD-ROM also involves certain technical problems brought up by Minugh (1997:79). The search software of these computer corpora was not made for linguistic research but for information retrieval, a fact that makes searches for some words and structures complicated. The CD-ROM search programs coming with some newspapers do not allow searches for very frequent function words, which are treated as “noise words” or “stop words”. This means that, when searching for *all, both* and *half* in these newspapers, other measures had to be taken (see Appendix C).

With the newspaper corpora (especially *The New York Times*), searches often yield duplicate tokens. These were excluded from the material to as large an extent as possible. If there are few tokens to a search, the deletion is seldom problematic. This is because one can easily spot redundant examples if they are sorted in alphabetical order on the word to the left or right of the keyword. In searches yielding thousands of lines of very similar structures, the problem is less easily solved, since duplicate lines may turn up very far away from each other. The method used here was to sort the concordance lines on the fifth words to the left and right of the keyword. This revealed at least most duplicate lines that were initially undetected.

Finally, a problem occurs with the linguistic factors. For some of these, the analysis is straightforward and objective, as in the case of the presence or absence of an adjacent *of*. In other cases, the analysis is a matter of more or less subjective interpretation. Divisibility (see Sections 3.3.4.4. and 7.3.3) and animacy (3.3.4.4. and 7.3.4.) are examples of such cases. I have tried to at least explain and motivate my choices, thereby allowing the reader a fair chance of understanding the reasoning behind them.

### 4.5 Summary

This chapter has served as a background for the empirical analyses that will be presented in the following three chapters (5–7). We started out by concluding that computerised corpora provide a convenient source of material for the research into syntactic variation in natural language. There are, however, different
views about whether corpus linguistics is a whole theory or just a methodological tool and about how corpora should be used.

Section 4.2 gave a brief presentation of the corpora used in the study: three newspaper archives – British, American and Australian – and two corpora of spoken English, one from Great Britain and one from the U.S. This was followed by a more extensive section on the procedure used for the extraction of data from the corpora, the sampling of material for the analyses of linguistic factors and the analysis itself. Complete lists of variables included and excluded are available in the appendices. The chapter ended with a discussion of certain problems concerning the material and the use of it. One such problem is the disadvantage of comparing data from different corpora.
5. Overall frequency distribution of variants

This chapter presents the results of the study of overall frequency distribution of NPs with *all*, *whole*, *both* and *half*. The main purpose was to find out whether some variants were more frequent than others overall. As discussed in section 2.1.3 and 2.1.4, fixed expressions and the result of knock-out effects were excluded from the study. However, the decision about which constructions to include and which to leave out is to some extent subjective. Therefore, Section 5.2 compares figures for a few of the variables with figures where the fixed expressions were included.

5.1 Results

This section presents the results in the form of tables showing the absolute number of tokens in all the corpora taken together, the number of tokens per ten million words and the relation between the variants expressed in percentages. Each table is followed by authentic corpus examples illustrating the different syntactic variants, in order to make the interpretation of the tables easier. The variables will be presented in the following order: NPs with *all/whole* and common nouns, NPs with *both* and common nouns, NPs with *half* and common nouns, NPs with *all/both/half* and demonstrative pronouns, NPs with *all/both* and personal pronouns, NPs with *half*, the indefinite article and a singular noun/numeral, NPs with *all/whole* and geographical names, and finally the two semantically restricted subgroups: (i) NPs with *all/whole* and temporal nouns and (ii) NPs with *both* and nouns denoting body parts or kinship.

5.1.1 NPs with common nouns

A general observation concerning all the variables with common nouns is that the variants with *of* were less frequent than the *of*-less variants. These results corroborate indications in reference grammars, where *of* constructions are generally introduced as possible alternatives (see, e.g., Quirk et al 1984:258). Similarly OED (s. v. *all* adj. 6 and *both* adj. 6) considers *all of* and *both of* to be rare. A common knock-out effect occurred in cases where the NP was preceded by a

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90 In this chapter, there will be no discussion of individual examples; they were merely included for illustration of the table contents.
quantifier + or (as in some or all...). Here the of variant is the only valid alternative (see Appendix B), and such tokens were excluded from the statistics.

5.1.1.1 NPs with all/whole and common nouns

Tables 5.1 to 5.3 show the frequencies of NPs with all/whole and a determiner in combination with singular count nouns, mass nouns and plural nouns (in that order). The reason for separating these three groups is that they exhibit different variation patterns. Singular count nouns (and, to some extent, mass nouns) are used with whole whereas plural NPs generally are not (unless with a different meaning). Moreover, whole is predominant with singular count nouns, while all predominates with mass nouns, so not distinguishing between singular count nouns and mass nouns would have yielded misleading figures.

Let us first look at all in combination with a singular count noun in Table 5.1. In this variable, one particular phrase, all the way, was extremely frequent. It could not be excluded as a fixed phrase, however, since there were also examples of all of the way, the whole way etc. Instead, figures where noun phrases with way (all the way, all of the way, the whole way) have been excluded are given in brackets.

<table>
<thead>
<tr>
<th>Table 5.1. NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of tokens</strong></td>
</tr>
<tr>
<td>all + DETERMINER + SINGULAR COUNT NOUN</td>
</tr>
<tr>
<td>all of + DETERMINER + SINGULAR COUNT NOUN</td>
</tr>
<tr>
<td>DETERMINER + whole + SINGULAR COUNT NOUN</td>
</tr>
<tr>
<td>the whole of + DETERMINER + SINGULAR COUNT NOUN</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

---

91 Where a sentence was ambiguous between a singular count noun and a mass noun reading (e.g. some NPs with the noun discussion), the token was included in the group with the most natural quantifier, i.e. mass nouns if it was a token with all and singular count nouns if it was a token with whole. This results in circular reasoning, but these cases were very few.

92 It should be observed that NPs with temporal nouns (e.g. all the day, the whole night) are not included in this frequency count but presented separately below (5.1.6.1).

93 Throughout the study the figures also include cases where one or more modifying adjectives precede the noun, as in all the nice children.

94 A number of tokens of various types, e.g. all the this while and for all the world as if, were excluded as fixed expressions (see Appendix B).

95 A number of tokens of various types, e.g. the whole gamut and the whole truth, were excluded as fixed expressions (see Appendix B).

96 Here and throughout, the total sum is given as 100% also in those case where the percentages for each variant add up to 99 or 101 because they have been rounded off (to avoid decimals in the table). The rounding process also means that very low absolute figures sometimes result in 0%, as in Table 5.2.
The variants are illustrated in (5:1) to (5:4).

(5:1) And you go to the, the dole office and they have and they have all the alphabet out there, and you, you go for the letter which is the first letter of your last name. (BNC)

(5:2) Throughout all of his career, Dwyer never lost his sense of humour and, oddly enough for one so successful in the coaching caper, he was a particularly human sort of bloke. (SMH95)

(5:3) She spends her whole life looking out the window watching who’s going up and down. (BNC)

(5:4) The police say that the numbers are between 50 and 150 for the whole of the borough. (IND95)

In this variable, DETERMINER + whole was predominant (82% with all the way excluded), which is in line with the claim, made by Quirk et al (1984:259) and Putseys (1984:388f), that whole is more natural than all in combination with a singular count noun. The corpora also contained almost four thousand instances of all + DETERMINER, a variant which Quirk et al (1985:259, 381) suggest is formal and only used with divisible nouns. However, as mentioned above, in cases where the determiner was the definite article, the all the way phrase constituted the majority of the cases. There were also a large number of tokens of the all my/his etc. life construction. This variable will be further discussed in terms of divisibility in Section 7.3.3.

In Table 5.2 we find the frequencies for all/whole in combination with a mass noun.

<table>
<thead>
<tr>
<th>NPs with all/whole, DETERMINER and MASS NOUN</th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>all + DETERMINER + MASS NOUN(^{97})</td>
<td>18402</td>
<td>93%</td>
</tr>
<tr>
<td>all of + DETERMINER + MASS NOUN</td>
<td>982</td>
<td>5%</td>
</tr>
<tr>
<td>DETERMINER + whole + MASS NOUN</td>
<td>400</td>
<td>2%</td>
</tr>
<tr>
<td>the whole of + DETERMINER + MASS NOUN</td>
<td>12</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19796</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Examples (5:5) to (5:8) illustrate the four variants.

(5:5) I mean that’s where all the action is. (LSAC)

(5:6) Let me stuff all of this stuff in here first. (LSAC)

\(^{97}\) A number of tokens of various types, e.g. all the rage and and all that jazz, were excluded as fixed expressions (Appendix B).
(5:7) The Shoreline East was begun by executive order, not legislative action, ‘so there’s this whole uneasiness over whether efforts by the legislature can save the service,’ Mr. Aniskovitch said. (NYT95)

(5:8) ‘Imagine grabbing the whole of the water in your hand and forearm’, says David […] (IND95)

In the case of mass nouns, the form with the of-less all variant predominated as expected (93%), slightly more than the whole variant did in NPs with a singular noun. Interestingly, there were also 395 instances of whole combined with mass nouns, a variant which Quirk et al (1985:260) regard as “unacceptable”. However, this is again a case of a recurrent phrase, the whole time, which was a frequent NP type, although in this case the other alternatives (all the time and all of the time) were frequent as well. The all of variant was about as frequent proportionally as in the variable with singular count nouns. The form with the whole of was very rare with mass nouns (only 13 instances in all). In this variant, there were no tokens of NPs where the determiner was a demonstrative or possessive determiner, only NPs with the definite article.

Table 5.3 shows how the two variants of the variable with all in combination with a plural noun were distributed in the corpus material.

Table 5.3. NPs with all, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>all + DETERMINER + PLURAL NOUN</td>
<td>3367</td>
<td>90%</td>
</tr>
<tr>
<td>all of + DETERMINER + PLURAL NOUN</td>
<td>3556</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>37193</td>
<td>100%</td>
</tr>
</tbody>
</table>

In (5:9) and (5:10) we see examples of the variants.

(5:9) Bihac fulfils all those Balkan prejudices, its history a tale of betrayal and unfortunate geography, of local warlords, political intrigue and greed. (SMH95)

(5:10) We don’t want to miss all of the people falling down. (NYT95)

This variable has only two variants, since whole in combination with a plural has a unitary rather than distributive meaning99. As with the other variables described, the of variant is the less frequent alternative. The use of all vs. all of in plural NPs can further be compared with NPs with mass nouns (disregarding whole variants which were quite rare). Finally, note that the of form was slightly more frequent with plurals than with mass nouns. This variable will be discussed again in Section 6.1.1 in relation to regional variation.

98 Tokens of /and/ all these/those kind, sort of /+ things were excluded as fixed expressions.
99 In the expression all (of) our/your/their lives, all has unitary rather than distributive meaning as well (see 3.3.4.4), competing with our whole lives. Those tokens were excluded. It is possible that all is used with this meaning with other nouns as well, but it would have been too time-consuming to analyse all the 37,193 examples in the material.
5.1.1.2 NPs with *both* and common nouns
The next two tables give the figures for NPs with *both* and the definite article or a demonstrative/possessive determiner. A distinction was made between NPs with the definite article and NPs with a demonstrative or possessive determiner. The reason for this separation is that the simple *both* variant (as in *both children*) is usually presented in the literature as an alternative to the former only (e.g. Seppänen & Seppänen 1986:169f; Berry 1997:138). A particular subgroup contains simple *both* and *both* with a possessive determiner in combination with a noun denoting body parts or kinship (see Section 5.1.6.2). These tokens were excluded from the frequencies here. Table 5.4 shows the variable with *both* *THE DEFINITE ARTICLE* and its alternative variants.

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>both</em> + PLURAL NOUN</td>
<td>10782</td>
<td>97%</td>
</tr>
<tr>
<td><em>both the</em> + PLURAL NOUN</td>
<td>201</td>
<td>2%</td>
</tr>
<tr>
<td><em>both of the</em> + PLURAL NOUN</td>
<td>118</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11101</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

Examples of the three variants are given in (5:11) to (5:13).

(5:11) The drifters came in to *both piers* and on a Saturday night, the village was a busy place. (BNC)

(5:12) Pierre van Hooijdonk scored *both the goals* for Celtic. (IND95)

(5:13) *Both of the authors* contribute to Horticulture magazine, and Mr. Winterrowd is the author of ‘Annual for Connoisseurs,’ yet I can’t find seams in this text; it is written in a single voice. (NYT95)

There was a clear predominance for the zero form (97%), and the variants with *both the* and *both of the* were infrequent (2% and 1% respectively). This result can be contrasted to the description in Leech (1989:66) that *both the boys* “can be replaced” (my emphasis) by *both boys*; similarly, many other grammars present the three variants as if they were equally common. This is clearly misleading since *both* is the totally predominant variant. Remember also the knock-out effect described in 3.3.4.2, i.e. that the *both the* and *both of the* forms are not used if the NP has restricted reference, as in *both halves* (also see Section 5.1.6.2).

The other variable including *both* and a plural noun is presented in Table 5.5.

---

100 A number of tokens of various kinds, e.g. *in both cases and the best of both worlds*, were excluded as fixed expressions (see Appendix B).
Table 5.5. NPs with both, DEMONSTRATIVE/POSSESSIVE DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>both these, my etc. + PLURAL NOUN</td>
<td>567</td>
<td>66%</td>
</tr>
<tr>
<td>both of these, my etc. + PLURAL NOUN</td>
<td>295</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>862</td>
<td>100%</td>
</tr>
</tbody>
</table>

Examples (5:14) and (5:15) illustrate the two variants.

(5:14) There is good reason for both these attitudes. (SMH95)

(5:15) [...] well I’ll call up both of those folks. (LSAC)

With a possessive or demonstrative determiner following both, the of variant was quite frequent, used in 34% of the cases, (also see 5.1.6.2). This variable exhibited clear regional variation, which will be discussed in 6.1.1 below.

5.1.1.3 NPs with half and common nouns

Let us now turn to NPs with half combined with determiners and common nouns. In consistency with the presentation of all/whole and a common noun, the tokens were separated according to number and countability, even though there are no restrictions with respect to variation here. Table 5.6 shows half in combination with a singular count noun.

Table 5.6. NPs with half, DETERMINER and SINGULAR COUNT NOUN

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>half + DETERMINER + SINGULAR COUNT NOUN(^{101})</td>
<td>2827</td>
<td>80%</td>
</tr>
<tr>
<td>half of + DETERMINER + SINGULAR COUNT NOUN</td>
<td>722</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>3549</td>
<td>100%</td>
</tr>
</tbody>
</table>

The two variants are exemplified by (5:16) and (5:17).

(5:16) A few months ago the construction of a rail link caused the closure of half the airport when a tunnel collapsed. (IND95)

(5:17) See, the thing is, we only pay half of the budget from the actual faculty, [...] (LSAC)

The half of variant was used in 20% of the cases in NPs with singular count nouns.

The frequency distribution for the variable with half and a mass noun is presented in Table 5.7.

---

\(^{101}\) Tokens of half the battle were excluded as fixed expressions.
Table 5.7. NPs with *half*, DETERMINER and MASS NOUN

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>half</em> + DETERMINER + MASS NOUN</td>
<td>769</td>
<td>81%</td>
</tr>
<tr>
<td><em>half of</em> + DETERMINER + MASS NOUN</td>
<td>179</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>948</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Example sentences are given in (5:18) and (5:19).

(5:18) Drizzle with remaining olive oil and sprinkle with *half the brown sugar* and salt. (SMH95)

(5:19) In some programs, more than *half of the money the agency spends* goes to contractors. (NYT95)

The frequency distribution between *half* and *half of* was virtually the same as with singular count nouns.

Table 5.8 finally shows the distribution in the variable with *half* and a plural noun.

Table 5.8. NPs with *half*, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>half</em> + DETERMINER + PLURAL NOUN</td>
<td>1910</td>
<td>61%</td>
</tr>
<tr>
<td><em>half of</em> + DETERMINER + PLURAL NOUN</td>
<td>1197</td>
<td>39%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3107</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Examples (5:20) and (5:21) illustrate the variants.

(5:20) I don’t even know *half the models* by heart. (LSAC)

(5:21) Mr. Murphy vigorously disputes the contention that he is a racist, saying that he parted on good terms with Mr. Griffith’s mother, and that *half of his clients* are black. (NYT95)

Interestingly, the *of* form was about twice as frequent in plural noun phrases as in the NPs with singular count nouns and mass nouns. It should be noted, however, that there were fairly great discrepancies between the regional varieties (see Section 6.1.1) and also between different types of central determiners (see 7.2). We can finally conclude that the *of* form was more frequent in the *half* variable than in the *all* and *both* variables. One possible explanation is that *all of* and *both of* are comparatively recent forms, whereas *half of* has existed much longer (cf. 3.3.1 above).

5.1.2 NPs with demonstrative pronouns

The next presentation of frequency distribution concerns NPs with *all*, *both* and *half* where the head is a demonstrative pronoun rather than a noun. We will first
look at all three of them, starting with all in Table 5.9, and then discuss them after the tables.

**Table 5.9. NPs with all and DEMONSTRATIVE PRONOUN**\(^{102}\)

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>all this/that/these/those</td>
<td>7521</td>
<td>85%</td>
</tr>
<tr>
<td>all of this/that/these/those</td>
<td>1325</td>
<td>15%</td>
</tr>
<tr>
<td>Total</td>
<td>8846</td>
<td>100%</td>
</tr>
</tbody>
</table>

Examples (5:22) and (5:23) illustrate the variants with and without of.

(5:22) It would be easy to dismiss all this as a backwater of policy in one of the lesser departments of state. (IND95)

(5:23) You mean all of these are for me? (LSAC)

Table 5.10 shows the frequencies for the two variants with both and a demonstrative pronoun.

**Table 5.10. NPs with both and DEMONSTRATIVE PRONOUN**

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>both these/those</td>
<td>37</td>
<td>34%</td>
</tr>
<tr>
<td>both of these/those</td>
<td>73</td>
<td>66%</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>100%</td>
</tr>
</tbody>
</table>

Here are two examples of both in combination with a demonstrative pronoun.

(5:24) In both these he had notable success. (IND95)

(5:25) You got a hundred on both of those? (BNC)

The frequency distribution for half in combination with a demonstrative pronoun is presented in Table 5.11.

**Table 5.11. NPs with half and DEMONSTRATIVE PRONOUN**

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>half this/that/these/those</td>
<td>157</td>
<td>40%</td>
</tr>
<tr>
<td>half of this/that/these/those</td>
<td>235</td>
<td>60%</td>
</tr>
<tr>
<td>Total</td>
<td>392</td>
<td>100%</td>
</tr>
</tbody>
</table>

Examples of the variants are given in (5:26) and (5:27).

---

\(^{102}\) A third variant, the whole of this/that, as in If you sold the whole of this that’s the earning and you’ve got to do this excuse me, in three weeks, occurred twice in the spoken British corpus
(5:26) Yeah, they’re having to sell some of it because they’re going from like a five thousand square foot house to almost half that and um, […] (LSAC)

(5:27) I don’t even think I’ve done half of these yet. (BNC)

The variant with of was more frequent when the head of the NP was a demonstrative pronoun rather than a common noun (cf. with Tables 5.1 to 5.4 above). This can be compared with Quirk et al’s (1985:373) somewhat vague description that of is “often preferred” with demonstrative pronouns. The statement seems more valid as far as NPs with both and half are concerned (compared to NPs with all), since in the material there was a fairly great difference between the quantifiers as regards the frequency of the of constructions (15% with all, 66% with both and 60% with half). As for the tokens with both, however, the number of tokens was quite low: only 107 tokens in all for both these/those and both of these/those. We will return to these variables in Section 6.1.2, since they (especially NPs with both) exhibited regional variation.

5.1.3 NPs with personal pronouns

From NPs with demonstrative pronoun as heads, let us now move on to all and both in combination with personal pronouns, one variant of which is referred to as the floating quantifier when occurring in the subject function (see 3.3.4.3). Only plural noun phrases were included in the study, even though the variable also occurs in the third person singular (it all and all of it). The reason for this is that in several cases it was very difficult to decide whether all belonged to the NP as a quantifier or whether it was an adverbial modifying the verb phrase (as in It all depends how you define major, IND95). As mentioned above, all tokens of you all and all of you were excluded owing to you all sometimes being used as a simple plural form of you, without having any quantifying function at all.

 Frequencies for NPs with all are presented in Table 5.12.

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>we/us, they/them all</td>
<td>16937</td>
<td>89%</td>
</tr>
<tr>
<td>all of us, them</td>
<td>2174</td>
<td>11%</td>
</tr>
<tr>
<td>Total</td>
<td>19111</td>
<td>100%</td>
</tr>
</tbody>
</table>

Examples (5:28) and (5:29) illustrate the two variants.

(5:28) They think they can all be helped by others. (NYT95)

(5:29) Yeah all of us had to audition. (BNC)

In table 5.13, we see the frequencies for the two variants with both.

---

107 There is also a third alternative in subject function, a combination of the two other constructions, as in They are all of them happy (see Section 3.3.4.3 above) and a non-standard alternative, the both of them (see Section 6.2).
Table 5.13. NPs with both and personal pronoun

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>we/us, you, they/them both</td>
<td>3257</td>
<td>81%</td>
</tr>
<tr>
<td>both of us, you, them</td>
<td>779</td>
<td>19%</td>
</tr>
<tr>
<td>Total</td>
<td>4036</td>
<td>100%</td>
</tr>
</tbody>
</table>

The two variants are illustrated in (5:30) and (5:31).

(5:30) And that’s what I need to ask you both. (LSAC)

(5:31) So I’m gonna ask both of you for a word specially in a moment to describe what it was like for that girl in the jungle. (BNC)

The tables show that the we/us (...) all/both variant was far more frequent (88% with all and 81% with both) than the variant with of. Remembering (cf. Section 3.3.4.3) that in the literature, the floating quantifier has generally been considered the marked variant (or at least that is the conclusion that can be drawn from the labelling of the phenomenon), this is quite interesting, as markedness and frequency of usage are often considered to be related. It should be remembered, however, that, in the literature, floating quantifiers have mainly been brought up in relation to NPs with a noun as the head of the NP rather than a pronoun as is the case here. The former is not analysed in this study, so we do not know the frequency of the floating construction (e.g. the children were all…) compared to the “unmarked” alternative (e.g. all /of the children were…). The variable with personal pronouns also exhibited some regional variation, which will be discussed in Section 6.1.3.

It should further be kept in mind that the variables with personal pronouns were affected by a knock-out effect. The we/us (...) all/both variant was never used in minor clauses, such as short answers and appositions (see Appendix B).

5.1.4 NPs with half, the indefinite article and a singular noun or numeral

NPs with half, the indefinite article and a singular noun/numeral usually have two variants (see Table 5.14). The following sentences illustrate the two variants.

(5:32) Let’s make it half an hour, okay? (BNC)

(5:33) A half-hour before kickoff, he was in the training room being rubbed down by a physical therapist. (NYT95)

104 The same form as described in Footnote 103 occurs with both as well, They are both of them seaworthy (see section 3.3.4.3 above).
Table 5.14. NPs with half, THE INDEFINITE ARTICLE and SINGULAR NOUN/NUMERAL

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>half a/an</td>
<td>6089</td>
<td>78%</td>
</tr>
<tr>
<td>a half</td>
<td>1685</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7774</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The more recent half a/an variant (cf. 3.3.1.3) was far more frequent (80%) than the a half form (20%). There were 1506 instances of a half in the material, so the description in Quirk et al (1984:388) that a half “occurs occasionally” (my emphasis) seems to be an understatement. This is one of the cases where there was clear regional variation in usage, which is discussed in the next Chapter (6.1.4). Furthermore, a knock-out effect influenced some of the variation. In cases where the quantified NP directly preceded another noun, as in a half-hour journey, and the indefinite article determines the second rather than the first noun, only the form with the indefinite article first is possible (*half an hour journey).

5.1.5 NPs with all/whole and geographical names

The frequencies for the variants within the variable with geographical names are given in Table 5.15.

Table 5.15. NPs with all/whole, /THE DEFINITE ARTICLE and GEOGRAPHICAL NAME

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>all + GEOGRAPHICAL NAME</td>
<td>125</td>
<td>16%</td>
</tr>
<tr>
<td>all of + GEOGRAPHICAL NAME</td>
<td>405</td>
<td>52%</td>
</tr>
<tr>
<td>the whole of + GEOGRAPHICAL NAME</td>
<td>250</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>780</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Examples of the variants are given in (5:34) to (5:36).

(5:34) If the United States recognises all Jerusalem as the capital of Israel, that will end the peace process. (IND95)

(5:35) So is there no AC in all of Albuquerque? (LSAC)

---

105 There is also a non-standard variant, a half a (see further Section 6.2).
106 A number of tokens of various kinds, e.g. a half-back and a half-smile were excluded as fixed expressions (see Appendix B).
107 Cases where the geographical name was preceded by the definite article (as in all of the United States) were excluded. “The definite article” in the table heading refers to cases of the whole of.
108 In the material from NYT95, the normal search procedures could not be used, a fact that might have affected the results. See further Appendix C.
The most frequent form overall was *all of*, which was used in half of the cases. The second most frequent variant is *the whole of* (33%), whereas the form with simple *all* is the least frequent of the three (16%). This is also the variant which Quirk et al (1984:260) consider to be more formal than the other two. In the light of this claim we will return to the construction in Section 6.2 to see if there are differences between speech and writing. This is also one of the cases where there was regional variation in the corpus material (see Section 6.1.5).

### 5.1.6 Subgroups

Finally, we will look at semantically restricted subgroups of a few of the larger groups (Sections 5.1.1.1; 5.1.1.2), i.e. *all/whole* with singular count nouns and *both* with plural nouns. The first subgroup comprises *all/whole* with temporal nouns, and the second comprises *both* with nouns for body parts or kinship.

#### 5.1.6.1 NPs with *all/whole* and temporal nouns

First, Table 5.16 presents the frequencies for the variable with temporal nouns.

<table>
<thead>
<tr>
<th></th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + TEMPORAL NOUN</td>
<td>5062</td>
<td>92%</td>
</tr>
<tr>
<td><em>all the</em> + TEMPORAL NOUN</td>
<td>43</td>
<td>1%</td>
</tr>
<tr>
<td><em>all of the</em> + TEMPORAL NOUN</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td><em>the whole</em> + TEMPORAL NOUN</td>
<td>402</td>
<td>7%</td>
</tr>
<tr>
<td><em>the whole of the</em> + TEMPORAL NOUN</td>
<td>15</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5525</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The five alternatives are illustrated in (5:37) to (5:41).

(5:37) The debate dragged on *all day* before Mr. Dole interrupted it. (NYT95)

(5:38) [...] I said goodnight Charlie, he say (sic) goodnight and that’s the only thing he said to me *all the weekend*. (BNC)

(5:39) A shoulder injury caused him to miss virtually *all of the next season* [...]. (IND95)

---

109 The study comprises temporal nouns for parts of the day (e.g. *morning, night*), days of the week (e.g. *Monday*), seasons (e.g. *summer*) and such nouns as *week, month, season* and *term*. These nouns may also be preceded by a modifier, as in *all next season*.

110 Tokens of *all day, night* etc. *long* were excluded as fixed expressions.
(5:40) I think she would be available the whole day. (LSAC)

(5:41) ‘The trauma team spent almost the whole of the night trying to find a suitable bed and were simply unable to do so,’ he said. (IND95)

This is the variable in the study that the largest number of possible variants. In the literature, all, all the and the whole are generally the only alternatives presented, and indeed there were very few instances of all of the and the whole of the (only 3 tokens of the former and 15 of the latter) in the material. All the was also infrequent (43 tokens, 1%). Moreover, simple all (without of and the definite article) was the clearly predominant variant (92%) with the whole in second place (7%). The data thus support Putney’s (1984:389) statement that all is preferred to whole in NPs with temporal nouns. This variable also showed regional variation, which will be discussed in Section 6.1.6.1. Again, some tokens were excluded due to a knock-out effect, viz. quantified temporal noun phrases occurring in newspaper advertisements, where only the simple all form was used (see Appendix B).

5.1.6.2 NPs with both and nouns for body parts or kinship

The second subgroup is related to the two variables with both and a plural noun, since the variants in this group are (i) simple both (from the variable with the definite article) and (ii) both in combination with a possessive determiner (with or without of). They are combined with nouns that refer to body parts (like eyes or arms) or kinship (like parents). There are also other nouns that may be used either with a possessive noun or the definite article, depending on the context. These were, however, included in the both (/of/the) + PLURAL NOUN variable above. The results of the frequency study are presented in Table 5.17.

Table 5.17. NPs with both, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS OR KINSHIP

<table>
<thead>
<tr>
<th>Type of Noun</th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>both + NOUN FOR BODY PARTS/KINSHIP</td>
<td>766</td>
<td>77%</td>
</tr>
<tr>
<td>both + POSSESSIVE DETERMINER + NOUN FOR BODY PARTS/KINSHIP</td>
<td>185</td>
<td>19%</td>
</tr>
<tr>
<td>both of + POSSESSIVE DETERMINER + NOUN FOR BODY PARTS/KINSHIP</td>
<td>39</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>990</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Examples (5:42) to (5:44) illustrate the three variants.

(5:42) And I certainly love the way that both eyes are catching those lovely highlights! (BNC)

(5:43) In the bathroom, Powles smashed a wine glass and cut both his wrists with the broken glass. (SMH)
(5:44) I never heard of it either and he has it tattooed on both of his arms.
(LSAC)

If these figures are compared with those in Table 5.3 (both – both the – both of the), simple both is less predominant here (70% compared to 97% above). On the other hand, the simple both form is not always a natural choice (see Section 3.3.4.2). Finally, there was regional variation, described in Section 6.1.6.2.

## 5.2 Fixed expressions

The fact that the definition of fixed expressions is problematic was discussed in Section 2.1.4. In this study, fixed expressions were excluded from the statistics since competition between variants is eliminated in those cases, according to dictionaries and the corpus material. In order to examine what consequences the exclusion of fixed expressions had on the results, this section presents a few tables giving figures both with and without fixed expressions included.

The first example concerns NPs with all and whole in combination with a singular count noun, where phrases such as for all the world as if and the whole gamut were excluded (see Appendix B for a complete list of the constructions excluded). Table 5.18 illustrates the difference between figures where fixed expressions were excluded and where they were included.

### Table 5.18. Figures for all/whole, DETERMINER and SINGULAR COUNT NOUN with fixed expressions excluded and included

<table>
<thead>
<tr>
<th></th>
<th>Fixed expression excluded</th>
<th>Fixed expression included</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of tokens</td>
<td>Per cent</td>
</tr>
<tr>
<td>all + DETERMINER + SING. COUNT NOUN</td>
<td>3903</td>
<td>26%</td>
</tr>
<tr>
<td>all of + DETERMINER + SING. COUNT NOUN</td>
<td>325</td>
<td>2%</td>
</tr>
<tr>
<td>DETERMINER + whole + SING. COUNT NOUN</td>
<td>10557</td>
<td>70%</td>
</tr>
<tr>
<td>the whole of + DETERMINER + SING. COUNT NOUN</td>
<td>392</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15177</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Number of tokens</td>
<td>Per cent</td>
</tr>
<tr>
<td>all + DETERMINER + SING. COUNT NOUN</td>
<td>4492</td>
<td>25%</td>
</tr>
<tr>
<td>all of + DETERMINER + SING. COUNT NOUN</td>
<td>325</td>
<td>2%</td>
</tr>
<tr>
<td>DETERMINER + whole + SING. COUNT NOUN</td>
<td>12501</td>
<td>71%</td>
</tr>
<tr>
<td>the whole of + DETERMINER + SING. COUNT NOUN</td>
<td>392</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17710</td>
<td>100%</td>
</tr>
</tbody>
</table>

What happens when fixed expressions are included is that the whole strengthens its position as the predominant variant by one per cent, from 70% to 71%, whereas two of the other variants recede by one per cent each (from 26% to 25%.
for *all* and 3% to 2% for the *whole of*). The percentage for *all of* did not change at all.

The second example regards *all* in combination with mass nouns, such as *all the fashion* (see Appendix B for a complete list). In Table 5.19 we can see that the inclusion of previously excluded fixed expressions does not change the relative figures although it strengthens the predominant variant in absolute figures with 207 tokens.

**Table 5.19. Figures for *all/whole*, THE DEFINITE ARTICLE and MASS NOUN with fixed expressions excluded and included**

<table>
<thead>
<tr>
<th>Fixed expression</th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + DETERMINER + MASS NOUN</td>
<td>18402</td>
<td>93%</td>
</tr>
<tr>
<td><em>all of</em> + DETERMINER + MASS NOUN</td>
<td>982</td>
<td>5%</td>
</tr>
<tr>
<td>DETERMINER + <em>whole</em> + MASS NOUN</td>
<td>400</td>
<td>2%</td>
</tr>
<tr>
<td><em>the whole of</em> + DETERMINER + MASS NOUN</td>
<td>12</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19796</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed expression</th>
<th>Number of tokens</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + DETERMINER + MASS NOUN</td>
<td>18609</td>
<td>93%</td>
</tr>
<tr>
<td><em>all of</em> + DETERMINER + MASS NOUN</td>
<td>942</td>
<td>5%</td>
</tr>
<tr>
<td>DETERMINER + <em>whole</em> + MASS NOUN</td>
<td>395</td>
<td>2%</td>
</tr>
<tr>
<td><em>the whole of</em> + DETERMINER + MASS NOUN</td>
<td>13</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19959</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The main reason for choosing these particular groups of fixed expressions in this part was that they included a sufficiently large number of tokens to be potentially relevant (although they, in fact, did not affect the original figures very much).

The fixed expressions were excluded as a safety precaution, but the results show that they could have been included without any great effects on the results. Why then does the exclusion or inclusion of fixed expressions affect the results to such a small extent? In the case of *all/whole* with singular nouns, the excluded fixed *all* and *whole* expressions divided neatly in proportions similar to the free expressions. In other cases, the fixed expressions are of the predominant variant, e.g. *all* in NPs with mass nouns and simple *both* in the [*both /of the/ + PLURAL NOUN*] variable. The reason as to why the exclusion of fixed expressions does not affect the results in these cases is that the most frequent variant is so totally dominating.
5.3 Summary

This chapter has presented the first empirical part of the study, giving the overall frequency distribution of variants in each of the variables. In the majority of cases, one variant was predominant, and in a few cases the other variants were only marginally used, such as the *both /of/ the* variants, which were only used in a few per cent of the cases. It is important to keep in mind, however, that the fact that one variant predominates does not immediately entail that this variant is the most appropriate one in all contexts. It might very well be that there are contexts where a rarely used variant is the only (or at least the best) alternative. There were also some cases where there was more balance in the use of two or more syntactic variants. Some claims in the literature were corroborated, e.g. that the *of* variant is less frequent than the one without *of* in NPs with common nouns, and that *of* is more frequent when the head of the NP is a demonstrative pronoun rather than a common noun. From this presentation of overall frequency distribution, we will move on to the investigation of two non-linguistic factors: region and medium.
6. Non-linguistic factors

We will now move on to the analysis of factors influencing the choice of variant, beginning with region and medium. The chapter starts by looking at how the variants were distributed according to region (6.1), and then moves on to distribution in spoken vs. written English (6.2).

6.1 Distribution according to region

This section deals with regional variation in three newspaper corpora: The New York Times (1995) for American English, The Sydney Morning Herald (1995) for Australian English and The Independent (1995) for British English. Generally, the regional differences found in the written material were also found in the spoken material. I provide comments for those variables where this was not the case. The differences between the varieties were significant at the 0.01 level (according to the chi-square test) unless otherwise indicated. For each of the significant cases, a phi coefficient expressing the strength of the correlation (0 = no correlation, 1 = perfect correlation) is given in Appendix E, Table E1 (see further Section 4.3.4).

It has been claimed that variants with of (as in all of the children) are more frequent in AmE than in BrE (e.g. Swan 1994:35; Berry 1997:81) and that a half (as in a half hour) is more frequent in AmE than in BrE (Benson et al 1996:21; Berry 1997:70f). Are these and other suggestions in the literature corroborated by the corpus results? Are there other, hitherto undetected, differences in frequency between regional varieties? We will begin with NPs with common nouns.

6.1.1 NPs with common nouns

Table 6.1 shows the frequencies for all, both and half in NPs with plural nouns, where the same tendency occurred with all three words. As noted in Section 5.1.1.1, NPs with all in combination with a common noun were separated into singular count, mass and plural NPs, owing to their different variation patterns. I have only included the plural nouns here (and similarly with half), in order to avoid presenting too many tables. This is also the noun type where the greatest difference between the varieties was observed. NPs with both were, like in Chapter 5, divided into two variables, one with simple both and alternatives with the definite article and another with demonstrative/possessive determiners. In-

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111 Remember that no spoken AusE material was used in the study.
teresting figures commented on in the text will be marked with bold type in the tables here and throughout the rest of the study.

Table 6.1. NPs with all/both/half, DETERMINER and PLURAL NOUN in different regional dialects

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>all + DETERMINER + PLURAL NOUN(^{112})</td>
<td>12732</td>
<td>85%</td>
<td>7529</td>
</tr>
<tr>
<td>all of + DETERMINER + PLURAL NOUN</td>
<td>2254</td>
<td>15%</td>
<td>665</td>
</tr>
<tr>
<td>Total</td>
<td>14986</td>
<td>100%</td>
<td>8190</td>
</tr>
<tr>
<td>both + PLURAL NOUN</td>
<td>5531</td>
<td>99%</td>
<td>2351</td>
</tr>
<tr>
<td>both the + PLURAL NOUN</td>
<td>19</td>
<td>0%</td>
<td>52</td>
</tr>
<tr>
<td>both of the + PLURAL NOUN</td>
<td>60</td>
<td>1%</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>5610</td>
<td>100%</td>
<td>2421</td>
</tr>
<tr>
<td>both these, my etc. + PLURAL NOUN</td>
<td>150</td>
<td>50%</td>
<td>136</td>
</tr>
<tr>
<td>both of these, my etc. + PLURAL NOUN</td>
<td>150</td>
<td>50%</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>100%</td>
<td>181</td>
</tr>
<tr>
<td>half + DETERMINER + PLURAL NOUN(^{113})</td>
<td>845</td>
<td>54%</td>
<td>442</td>
</tr>
<tr>
<td>half of + DETERMINER + PLURAL NOUN</td>
<td>726</td>
<td>46%</td>
<td>230</td>
</tr>
<tr>
<td>Total</td>
<td>1571</td>
<td>100%</td>
<td>672</td>
</tr>
</tbody>
</table>

The table shows that the of variant was most frequent in AmE and least frequent in BrE with all three quantifiers (all, both and half), thus corroborating the statements in the literature referred to above. Judging from the results of the corpora, Swan’s (1994:35) claim that “American English usually has all of” (my emphasis), is far too strong, however; simple all is clearly predominant also in most of the AmE material.

In the both + PLURAL NOUN variable, the simple both form was most predominant in the American material and both the was slightly more frequent in

\(^{112}\) The same kind of correlation (all – BrE, all of – AmE) recurred in the all/whole + MASS NOUN variable of. Another regional difference worth reporting on is that the whole of was almost exclusively used in the British corpora (NYT95: 8 tokens vs. IND95: 162 tokens and similarly in the spoken corpora).

\(^{113}\) The correlation between the of-less form and BrE and the of-form and AmE recurred in the half + SINGULAR COUNT NOUN variable.
BrE than in AmE and AusE. Both of the was very infrequent, used in only 1% of the cases, regardless of regional variety. Swan (1994:109) writes that “in American English, both of is usual”, without any further comments. Since both of the is so infrequent it is not likely that he is thinking of constructions like these, but rather NPs with other types of determiners (e.g. both of these pronouns), or perhaps with demonstrative pronoun as heads (e.g. both of these) (see further in the next section).

### 6.1.2 NPs with demonstrative pronouns

The next table (6.2) shows the regional variation in NPs with all, both and half in combination with demonstrative pronominal heads.

#### Table 6.2. NPs with all/both/half and demonstrative pronoun in different regional varieties

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>all this/that/these/those</td>
<td>1678  78%</td>
<td>1276  86%</td>
<td>2292  90%</td>
</tr>
<tr>
<td>all of this/that/these/those</td>
<td>478   22%</td>
<td>203   14%</td>
<td>260  10%</td>
</tr>
<tr>
<td>Total</td>
<td>2156  100%</td>
<td>1479  100%</td>
<td>2552  100%</td>
</tr>
<tr>
<td>both these/those</td>
<td>6     32%</td>
<td>7    37%</td>
<td>17  63%</td>
</tr>
<tr>
<td>both of these/those</td>
<td>13    68%</td>
<td>12   63%</td>
<td>10  37%</td>
</tr>
<tr>
<td>Total</td>
<td>19    100%</td>
<td>19  100%</td>
<td>27  100%</td>
</tr>
<tr>
<td>half this/that these/those</td>
<td>62   41%</td>
<td>61   48%</td>
<td>29  47%</td>
</tr>
<tr>
<td>half of this/that these/those</td>
<td>89   59%</td>
<td>65   52%</td>
<td>33  53%</td>
</tr>
<tr>
<td>Total</td>
<td>151   100%</td>
<td>126  100%</td>
<td>62  100%</td>
</tr>
</tbody>
</table>

In Section 5.1.2 we noted that of was more frequent in NPs with a demonstrative pronoun as head than in NPs with a determiner and a noun. This difference recurred in all three newspaper corpora (cf. Table 6.1). As in the variables with common nouns as heads, the of variant was most frequent in the American material and least frequent in the British material. The greatest difference occurred in the both variable, but the tokens were very few. Furthermore, the correlation between both and BrE and between both of and AmE+AusE was only significant at the <0.05 level. The correlation in the variable with half was not statistically significant.

### 6.1.3 NPs with personal pronouns

There was also some regional variation in the variable with all and personal pronouns, as in they ... all vs. all of them. The results for NPs with all and both are presented in Table 6.3.
Table 6.3. NPs with all/both and PERSONAL PRONOUN in different regional dialects

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>we/us, they/them all</td>
<td>4078</td>
<td>83%</td>
<td>2357</td>
</tr>
<tr>
<td>all of us, them</td>
<td>863</td>
<td>17%</td>
<td>374</td>
</tr>
<tr>
<td>Total</td>
<td>4941</td>
<td>100%</td>
<td>2731</td>
</tr>
<tr>
<td>we/us, you, they/them both</td>
<td>865</td>
<td>77%</td>
<td>368</td>
</tr>
<tr>
<td>both of us, you, them</td>
<td>255</td>
<td>23%</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>1120</td>
<td>100%</td>
<td>461</td>
</tr>
</tbody>
</table>

The variant with of was most frequent in AmE and least frequent in BrE. To my knowledge, this variation is not discussed in the literature on floating quantifiers, and as can be seen, the difference was not so great. Perhaps this is just another case of of variants being more frequent in AmE.

6.1.4 NPs with half, the indefinite article and a singular noun or numeral

The most conspicuous case of regional variation concerns the distribution of half a/an and a half in the different regional varieties, as presented in Table 6.4.

Table 6.4. NPs with half, THE INDEFINITE ARTICLE and SINGULAR NOUN or NUMERAL in different regional dialects

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>half a/an</td>
<td>1841</td>
<td>59%</td>
<td>1176</td>
</tr>
<tr>
<td>a half</td>
<td>1254</td>
<td>41%</td>
<td>175</td>
</tr>
<tr>
<td>Total</td>
<td>3095</td>
<td>100%</td>
<td>1351</td>
</tr>
</tbody>
</table>

According to Benson & et al (1986:21) and Berry (1997:70f), a half is more frequent in AmE than in BrE. This was corroborated by the corpus data: the a half variant was far more frequent in AmE (40%) than in the BrE (6%) and AusE (13%).

As described in Section 3.3.1.3, the a half variant was first attested in 835 and half a not until 1377. We do not know how long it took for the latter to be firmly established, but let us hypothesise that a half lived on as the most frequent form for several hundred years after the first attestation of half a. It may thus have been the most frequent form when the English language was exported to the other side of the Atlantic, and may thereafter have lived on in American English.
This is a process observed for other linguistic features of English, such as the word *fall* and the phrase *I guess* (Crystal 1995:93).

Moreover, Berry’s (1997:70f) suggestion that there is a difference in meaning between the two syntactic variants (see 3.3.4.3) is quite interesting in the light of the present findings: Do Americans refer to established units more often than people speaking British English? It is conceivable that some speakers regard the two as having different meanings, but that a process of dialectal conventionalisation, i.e. “when certain possibilities become conventionally established” in a dialect, has taken place (Langacker (1988:38), see Section 2.1.2).

### 6.1.5 NPs with *all/whole* and geographical names

Another case of regional variation which I have not seen described in the literature was detected in the variable with geographical names (Table 6.5).

**Table 6.5. NPs with *all/whole*, *THE DEFINITE ARTICLE* and GEOGRAPHICAL NAME in different regional dialects**

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>all + GEOGRAPHICAL NAME</td>
<td>N 55</td>
<td>% 16</td>
<td>N 18</td>
</tr>
<tr>
<td>all of + GEOGRAPHICAL NAME</td>
<td>258</td>
<td>77%</td>
<td>73</td>
</tr>
<tr>
<td>the whole of + GEOGR. NAME</td>
<td>21</td>
<td>6%</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>100%</td>
<td>146</td>
</tr>
</tbody>
</table>

*All of* was the predominant form in the AmE material (78%), whereas *the whole of* predominated in the BrE material (59%). The AusE material adhered to the AmE preference for *all of* (50%), even though *the whole of* was frequent here as well (38%). Simple *all* was the least frequent variant in all three corpora.

### 6.1.6 Subgroups

In this section, we will look at three subgroups, two of them previously discussed in Chapter 5 (NPs with *all/whole* and a temporal noun and NPs with *both* and a noun for body parts or kinship), and one more (NPs with *all/whole* and a collective noun).

#### 6.1.6.1 NPs with *all/whole* and temporal nouns

Table 6.6 shows the results of the comparison of different variants with temporal nouns in the regional varieties.

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114 In the material from NYT95, the normal search procedures could not be used with the simple *all* variant. This might have affected the results to some extent. See further Appendix C.
Table 6.6. NPs with *all/whole, /THE DEFINITE ARTICLE/ and TEMPORAL NOUN in different regional dialects

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td><em>all</em> + TEMPORAL NOUN</td>
<td>1812</td>
<td>95%</td>
<td>752</td>
</tr>
<tr>
<td><em>all the</em> + TEMPORAL NOUN</td>
<td>2</td>
<td>0%</td>
<td>9</td>
</tr>
<tr>
<td><em>all of the</em> + TEMPORAL NOUN</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td><em>the whole</em> + TEMPORAL NOUN</td>
<td>103</td>
<td>5%</td>
<td>53</td>
</tr>
<tr>
<td><em>the whole of the</em> + TEMP. NOUN</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1917</td>
<td>100%</td>
<td>815</td>
</tr>
</tbody>
</table>

There were small differences generally between the varieties, the simple *all* variant being a little more frequent in AmE than in the other varieties. Benson et al. (1986:21) write that *all the* is a Briticism. Since this variant is so infrequent overall, it is of course difficult to judge whether there are any real differences between the varieties. However, when comparing absolute figures it can at least be concluded that *all the* was most frequent in BrE (18 instances, 4 per 10 M words), less frequent in AusE (9 instances, 2 per 10 M words) and least frequent in AmE (2 instances, 0.3 per 10 M words). There was also a difference in the use of *the whole* between the spoken American material and the other corpora. We will return to this in Section 6.2.

6.1.6.2 NPs with *both* and nouns for body parts or kinship

The second subgroup also exhibited regional variation, as illustrated in Table 6.7.

Table 6.7. NPs with *both, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS OR KINSHIP in different regional dialects

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td><em>both</em> + NOUN FOR BODY PARTS/KINSHIP</td>
<td>322</td>
<td>78%</td>
<td>179</td>
</tr>
<tr>
<td><em>both my etc.</em> + NOUN FOR BODY PARTS/KINSHIP</td>
<td>61</td>
<td>15%</td>
<td>26</td>
</tr>
<tr>
<td><em>both of my etc.</em> + NOUN FOR BODY PARTS/KINSHIP</td>
<td>30</td>
<td>7%</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>413</td>
<td>100%</td>
<td>208</td>
</tr>
</tbody>
</table>

The form with *of* was more frequent in AmE than in the other variants, whereas *both my* was particularly frequent in BrE and simple *both* in AusE.
6.1.6.3 NPs with all/whole and collective nouns

One more subgroup (of the all/whole + SINGULAR COUNT NOUN variable), not discussed in Chapter 5, should be mentioned, since it shows a particularly interesting case of regional variation. The tokens in this group were not separated from the larger group, since the variants are the same. It is just treated here as a special case of all/whole in combination with singular count nouns.

Levin (2001:124) found that all with collective nouns, like family and government, is more frequent in BrE than in AmE, while whole, on the other hand, is more frequent in AmE than in BrE. This study, which used the same corpus material but took a larger number of different collective nouns (in fact all found in the material) into account, corroborated these results, as illustrated in Table 6.8.

Table 6.8. NPs with all/whole, DETERMINER and COLLECTIVE NOUN in different regional dialects

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Sydney Morning Herald</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>all + DETERMINER + COLLECTIVE NOUN</td>
<td>22</td>
<td>7%</td>
<td>62</td>
</tr>
<tr>
<td>all of + DETERMINER + COLLECTIVE NOUN</td>
<td>21</td>
<td>7%</td>
<td>15</td>
</tr>
<tr>
<td>DETERMINER + whole + COLLECTIVE NOUN</td>
<td>280</td>
<td>87%</td>
<td>120</td>
</tr>
<tr>
<td>Total</td>
<td>323</td>
<td>100%</td>
<td>197</td>
</tr>
</tbody>
</table>

All was indeed more frequent with collective nouns in BrE (24%) and (especially) AusE (31%) than in AmE (6%), whereas whole was more frequent in AmE (88%) than in BrE (73%) and AusE (61%). A plausible explanation of the more frequent use of all in BrE and AusE is that all is mainly used to indicate individual members of a group. When referring to individuals, BrE speakers use plural agreement (in verbs and pronouns) with collective nouns more often than Americans do. It seems likely that BrE speakers should thus use all more often as well. This argumentation is in line with Huddleston & Pullum (2002:375), who claim that all foregrounds the individual members of a group, while whole focuses more on the entity.

6.1.7 General observations

It was mentioned in Section 2.2.1 that differences between AmE and BrE are often presented in a categorical way in the literature, suggesting that differences are absolute, i.e. that one variant only exists in BrE and the other only exists in AmE. As for the use of quantifiers, some authors are categorical, such as Benson et al (1986:21) who state that a half is an Americanism, and that all the day is a Briticism. Others are more balanced, such as Berry who writes that the a half variant is “more common in American English than British English” (Berry 1997:81). We can see from the results that there were no absolute differences between regional varieties in the corpora. Furthermore, the same syntactic variant
generally predominated in all three varieties, such as simple both (as in both children). The only exceptions were NPs with geographical names and NPs with both and a demonstrative pronoun, where different variants predominated in the different varieties. In the latter of these, the figures were too low to be reliable. In some cases an alternative form was far more frequent in one variety than in another, for example a half and the variants with of in American English, even though the same form (half a/an in this case) predominated in both.

Finally, a general observation regarding Australian English can be made. In Section 2.2.1 it was remarked that AusE shares features of both BrE and AmE, owing to its British origin and later to its American influence in the form of media etc. (cf. Peters & Fee 1999:135f). The results of the analysis of quantifiers corroborate this, since in most cases the figures for AusE lie between those of the BrE and the AmE material (cf. Estling Vannestål 2001a). Quite often the AusE figures were closer to those of one of the varieties, generally BrE. So, judging from the present material, Australians resemble BrE speakers more than AmE speakers in their use of quantifiers.

6.2 Distribution in spoken and written English

Biber et al (1999:277) point to an interesting difference in distribution between all and both across different registers. In their corpus research they found that all was far more frequent in conversation and fiction than in academic discourse, whereas the opposite was true of both. The authors explain this fact with reference to the need for precision in academic discourse (both being more precise than all), while conversation and fiction “have a tendency to opt for more categorical expressions (especially all)”. Chapter 3 reported on some more specific statements concerning the formality of particular syntactic variants (all + SINGULAR COUNT NOUN, both of, a half and all + GEOGRAPHICAL NOUN). We will begin by comparing these with the corpus data. Since no spoken AusE was included in the material, the tables presented only show figures from AmE and BrE. The differences were significant at the 0.01 level unless otherwise indicated (see Appendix E, Table E2, for phi coefficients).

First, Quirk et al (1985:381) claim that all in combination with a singular count noun is more formal than a construction with whole. Since NPs with the definite article and NPs with other determiners proved to exhibit rather great differences in the spoken corpora, they will be separated in the presentation. Table 6.9 shows the frequencies for NPs with the definite article.
Table 6.9. NPs with *all/whole*, THE DEFINITE ARTICLE and SINGULAR COUNT NOUN in the written and spoken material

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td><em>all the</em> + SINGULAR COUNT NOUN</td>
<td>736 (22%)</td>
<td>626 (16%)</td>
</tr>
<tr>
<td></td>
<td>(87) (3%)</td>
<td>(97) (3%)</td>
</tr>
<tr>
<td><em>all of the</em> + SINGULAR COUNT NOUN</td>
<td>90 (3%)</td>
<td>28 (1%)</td>
</tr>
<tr>
<td></td>
<td>(88) (3%)</td>
<td>(28) (1%)</td>
</tr>
<tr>
<td><em>the whole</em> + SINGULAR COUNT NOUN</td>
<td>2466 (75%)</td>
<td>3173 (80%)</td>
</tr>
<tr>
<td></td>
<td>(2465) (93%)</td>
<td>(3159) (92%)</td>
</tr>
<tr>
<td><em>the whole of</em> + SINGULAR COUNT NOUN</td>
<td>11 (0%)</td>
<td>162 (4%)</td>
</tr>
<tr>
<td></td>
<td>(11) (0%)</td>
<td>(162) (5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3303 (100%)</td>
<td>3989 (100%)</td>
</tr>
<tr>
<td></td>
<td>(2651) (100%)</td>
<td>(3446) (100%)</td>
</tr>
<tr>
<td></td>
<td><strong>LSAC</strong></td>
<td><strong>BNC</strong></td>
</tr>
<tr>
<td></td>
<td>(spoken AmE)</td>
<td>(spoken BrE)</td>
</tr>
<tr>
<td><em>all the</em> + SINGULAR COUNT NOUN</td>
<td>477 (43%)</td>
<td>159 (18%)</td>
</tr>
<tr>
<td></td>
<td>(56) (8%)</td>
<td>(56) (7%)</td>
</tr>
<tr>
<td><em>all of the</em> + SINGULAR COUNT NOUN</td>
<td>11 (1%)</td>
<td>7 (1%)</td>
</tr>
<tr>
<td></td>
<td>(11) (2%)</td>
<td>(11) (1%)</td>
</tr>
<tr>
<td><em>the whole</em> + SINGULAR COUNT NOUN</td>
<td>625 (56%)</td>
<td>661 (73%)</td>
</tr>
<tr>
<td></td>
<td>(609) (90%)</td>
<td>(658) (82%)</td>
</tr>
<tr>
<td><em>the whole of the</em> + SINGULAR COUNT NOUN</td>
<td>0 (0%)</td>
<td>78 (9%)</td>
</tr>
<tr>
<td></td>
<td>(0) (0%)</td>
<td>(78) (10%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1113 (100%)</td>
<td>905 (100%)</td>
</tr>
<tr>
<td></td>
<td>(676) (100%)</td>
<td>(803) (100%)</td>
</tr>
</tbody>
</table>

Nothing in this corpus material corroborates Quirk et al’s statement. In the three newspaper corpora and the spoken British corpus, the relative frequency of *all the*, compared to the other syntactic variants, is quite similar (18% for the spoken British corpus, 22% and 16% for the newspapers). Interestingly, in the American spoken corpus, the use of *all* with singular count nouns is much more frequent than elsewhere (43%). The reason for this is the even greater predominance of the *all the way* phrase in the spoken American corpus compared to the other corpora. When NPs with *way* are excluded, there is very little difference between the corpora as regards the use of *all the*.

In Table 6.10, we see the frequency distribution for the variants in the variable with *all/whole*, a demonstrative or possessive determiner and a singular count noun.

---

115 Tokens with *all the way* excluded are given in brackets.
Here, however, *all* was more frequent in the newspaper corpora than in the spoken American material (35–42% in the newspapers and 19% in LSAC). Meanwhile, *all* was in fact predominant (73%) in the spoken British material (BNC). Three of the writers of *A Comprehensive Grammar of the English Language* (Quirk et al 1985) are British (and the fourth is from Sweden, where BrE has traditionally been more influential than AmE in the teaching of English). Therefore it is quite strange that the results of the comparison of the American material should be in line with their suggestion that *all* is more formal than *whole*, whereas the results of the comparison of the British material point in the other direction (i.e. *all* was more frequent in speech than in writing). A large number of the examples in the BNC consisted of two particular phrase types (*all my/his etc. life* and *all this/that lot*). With these tokens disregarded, the differences are a little less conspicuous. Nevertheless, *all this/my etc.* was still much more frequent in the spoken British material than in the other three corpora.

Next, the OED (s.v. *both* adj. 6) considered *both of* in combination with a determiner to be “colloquial”. One could therefore expect this variant to be more frequent in speech than in writing. *Both of* with the definite article was very infrequent in the spoken material, occurring only seven times in LSAC and five times in BNC. The form was slightly more frequent compared to the other syntactic variants (simple *both* and *both the*) in the spoken American material than in the written material, but since the figures were so low and the differences
not statistically significant, I refrain from concluding that the results corroborate OED’s claim. It should also be remembered that the information in OED is not very up-to-date (although it is not known when this particular entry was written) and over time, some previously “colloquial” forms also enter the written medium. The OED claim also concerned demonstrative determiners. Apart from the variant with of being more frequent in the American than in the British material in both media, of was indeed more frequent in speech. Again, however, the figures were low, and the differences were not statistically significant.

Putseys (1984:379) writes that a half is more formal than half a, while Longman (2003) refers to a half as a form typical of spoken American English. The syntactic variants are presented in Table 6.11.

Table 6.11. NPs with half, the indefinite article and singular noun or numeral in the written and spoken material

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>half a/an</td>
<td>1841</td>
<td>59%</td>
</tr>
<tr>
<td>a half</td>
<td>1254</td>
<td>41%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3095</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>LSAC</th>
<th></th>
<th>BNC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>half a/an</td>
<td>191</td>
<td>68%</td>
<td>745</td>
<td>95%</td>
</tr>
<tr>
<td>a half</td>
<td>90</td>
<td>32%</td>
<td>39</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>281</td>
<td>100%</td>
<td>784</td>
<td>100%</td>
</tr>
</tbody>
</table>

In the British corpus material, there was no difference between speech and writing, a half occurring in 5% of BrE speech, and in 6% of BrE newspaper text. In AmE, a half was more frequent in the newspaper text (40%) than in the spoken material (32%), corroborating Putseys’ claim.

Simple all with a geographical name (as in All Paris welcomed the general) is further considered formal by Quirk et al (1984:260). In the British material, simple all was more frequent in writing than in speech, which might indicate that the form is felt to be more formal. There was, however, an opposite tendency in the American material. Finally, the figures were very low (too low to be submitted to the significance test), so it would be unwise to jump to conclusions.

Let us now move on to the subgroups. First, there was a small difference between speech and writing in the American corpora concerning NPs with temporal nouns (Table 6.12). As we saw in Table 6.6, there were virtually no differences in distribution between the newspapers. In the spoken corpora, however, the whole was more frequent in the spoken AmE material than elsewhere.
Table 6.12. NPs with *all/whole*, /THE DEFINITE ARTICLE/ and TEMPORAL NOUN in the spoken material

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + TEMPORAL NOUN</td>
<td>1812</td>
<td>1276</td>
</tr>
<tr>
<td><em>all the</em> + TEMPORAL NOUN</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td><em>all of the</em> + TEMPORAL NOUN</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><em>the whole</em> + TEMPORAL NOUN</td>
<td>103</td>
<td>110</td>
</tr>
<tr>
<td><em>the whole of the</em> + TEMPORAL NOUN</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1917</td>
<td>1414</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>LSAC</th>
<th>BNC</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + TEMPORAL NOUN</td>
<td>472</td>
<td>750</td>
</tr>
<tr>
<td><em>all the</em> + TEMPORAL NOUN</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td><em>all of the</em> + TEMPORAL NOUN</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><em>the whole</em> + TEMPORAL NOUN</td>
<td>81</td>
<td>55</td>
</tr>
<tr>
<td><em>the whole of the</em> + TEMPORAL NOUN</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>559</td>
<td>823</td>
</tr>
</tbody>
</table>

There was also a difference according to medium in the variable with *both* and a noun denoting body parts or kinship. Table 6.13 shows the correlation.

Table 6.13. NPs with *both*, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS OR KINSHIP in the written and spoken material

<table>
<thead>
<tr>
<th></th>
<th>The New York Times</th>
<th>The Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td><em>both</em> + NOUN FOR BODY PARTS/KINSHIP</td>
<td>322</td>
<td>78%</td>
</tr>
<tr>
<td><em>both my</em> + NOUN FOR BODY PARTS/ KINSHIP</td>
<td>61</td>
<td>15%</td>
</tr>
<tr>
<td><em>both of my</em> + NOUN FOR BODY PARTS/ KINSHIP</td>
<td>30</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>413</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>LSAC</th>
<th>BNC</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>both</em> + NOUN FOR BODY PARTS/KINSHIP</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td><em>both my</em> + NOUN FOR BODY PARTS/ KINSHIP</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td><em>both of my</em> + NOUN FOR BODY PARTS/ KINSHIP</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>38</td>
<td>33</td>
</tr>
</tbody>
</table>
The table indicates that the simple *both* form is more frequent in written than in spoken English, since it correlated positively with both the American and the British newspaper material. Also note that *both my* was proportionally more frequent in the spoken British material, but on the other hand there were few tokens in the spoken corpora.

As far as non-standard variants are concerned, there are two variants that are sometimes accounted for in the literature as mainly belonging to spoken language. Both these can be regarded as containing redundant material. The first one is *the both of us* etc. as an alternative to *we ... both* and *both of us* (cf. Huddleston & Pullum 2002:377), which was found in 17 cases in the corpus material (the spoken corpora and in interviews in the newspapers). The second variant is *a half a*, observed by Jespersen (1909–49:361) and Svartvik & Sager (1996:275). The latter point out that this form is “very colloquial” (my translation). In my material, it was used in as many as 156 cases, mainly in the AmE corpora (73 in the spoken AmE corpus and 46 in NYT95). Still, it should be noted that a corpus of spoken language necessarily contains false starts and misprints, and *a half a* could be an example of such features in some of the cases. Examples (6:1) and (6:2) illustrate the non-standard variants.

(6:1) Doctor said he’ll send for *the both of us*, right? (BNC)

(6:2) Well, you’re pretty far out. *A half an hour* out of the city. (LSAC)

The conclusion drawn from the study of medium (conducted on BrE and AmE material only) is that there were very little difference between the spoken and the written material. There were some tendencies, but in most cases, either the figures were low or a difference occurred in only one of the varieties. One interpretation of the results is that there is indeed little difference between speech and writing in the use of quantifiers. Another explanation could be that the registers used were too similar to reveal differences, for instance because newspaper text includes so much dialogue. Perhaps the greatest difference between spoken and written language with respect to quantifiers is that noted by Biber, referred to above, viz. that *all* is more frequent in speech and *both* in writing.

### 6.3 Summary

This chapter dealt with two non-linguistic factors influencing the choice between two or more syntactic variants: region and medium. Section 6.1 reported on differences between British, American and Australian English. Here it was concluded that two statements about regional differences in the use of quantifiers were corroborated by the corpus results. First, *of* forms are generally more frequent in AmE than in BrE, and, second, the *a half* variant is used more often in AmE than in BrE (where *half an* predominates). Moreover, a few previously undetected regional differences were reported on. The idea that AusE, which has been influenced by both BrE and AmE, takes an intermediate position between the two varieties, was confirmed. From the results, it could, however, be concluded that Australians resemble British speakers more than Americans in their
use of quantified NPs. In the study of spoken and written material (conducted on BrE and AmE material only) no great differences were detected, a fact which may have different reasons.
7. Linguistic factors

The third aim of this study was to test a number of hypotheses about how linguistic factors in the noun phrase and its surrounding co-text influence the choice of variant in the quantified NP types. The underlying assumption was that there are indeed such correlations. We will move gradually from factors internal to the NP (determiners, head and modifiers) to factors concerning elements outside the NP and then to the NP in its relation to the clause in which it occurs. Some of the factors call for explanations, which will be given in each of the sections. Some of the factors were investigated in all of the variables, while others were only relevant to one or a few of these (see Table 7.1 below). The following factors will be analysed (and presented in the same order):

1. Type of central determiner in the NP
2. Factors relating to the NP head
   a. noun vs. demonstrative pronoun as head
   b. number and countability
   c. divisibility in NPs with singular count nouns
   d. animacy
   e. natural vs. arbitrary time division in NPs with temporal nouns
   f. type of “head” in NPs with half, the indefinite article and a singular noun or numeral
3. The presence of certain elements in the NP or its near co-text
   a. modifiers
   b. an adjacent of
   c. focus markers
4. Syntactic function of the NP

7.1 Introduction

The term “linguistic factor” is used to refer to the different linguistic characteristics of the NP and its co-text that might influence the choice of variant. “Category” is used for the groups into which a particular factor is divided. For instance, in the factor “the presence of an adjacent of”, the categories are “no of”, “of within the NP” and “of preceding the NP” (Figure 7.1).
So as to examine as many linguistic factors as possible, I selected certain variables from those presented in Chapter 5 (see Table 7.1). All three variables with all and a common noun were included, plus the subgroup with temporal nouns, since these variation patterns look so different. As for NPs with both, the both (i/of/the) + PLURAL NOUN variable and the subgroup with nouns denoting body parts or kinship were analysed. As for NPs with half, only the group with plural nouns was included, since the variation is the same for NPs with singular, plural and mass nouns. In NPs with demonstrative pronouns as head as in all (of) these, only those with all (not NPs with both and half) were included. The same applies to NPs with personal pronouns, as in all of us/we all. In both these variables, it was hoped that all would be a good representative for the other quantifiers, since they occur in the same kind of constructions and had fairly similar variation patterns. The variables with half, the indefinite article and a singular noun or numeral and with all/whole and a geographical name were all included in the analyses.

It should also be observed that not all of the linguistic factors accounted for above are relevant to each of the variables. In a few cases, a factor is only relevant to one single variable (see the list at the beginning of this chapter). Number and countability is a special case, since it compares variables with each other rather than factor categories within a variable. Table 7.1 shows the factors where several variables were investigated, each one marked with a plus sign. Note that the variables are condensed in the table, so that, for instance, all/whole + SINGULAR COUNT NOUN has four variants: all + DETERMINER, all of + DETERMINER, DETERMINER + whole and the whole of + DETERMINER. Similarly, all + PERSONAL PRONOUNS has two variants: all of us and we (…) all.

In the variable with all/whole and singular count nouns, tokens with way were excluded from the samples, since the phrase all the way was so dominating in the material, and also because there are very few instances of all of the way and the whole way. Another very frequent phrase was all my/his etc. life, but since there were also quite a few cases of all of my/his etc. life and my/his etc. whole life, the tokens were included. The same applies to the all/whole and mass noun variable, where the whole time was predominant in the whole variant. Here too, there were quite a few instances of alternative variants, all the time and all of the time, so these tokens were not excluded.
### Table 7.1. Linguistic factors relevant to more than one variable

<table>
<thead>
<tr>
<th>Type of det.</th>
<th>Ani-macy</th>
<th>Modifiers</th>
<th>An adjacent of</th>
<th>Focus markers</th>
<th>Synt. function</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all/whole</em> + SING. COUNT</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>all/whole</em> + MASS NOUN</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>all</em> + PLURAL NOUN</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>both</em> + PLURAL NOUN</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td><em>half</em> + PLURAL NOUN</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>all</em> + DEM. PRONOUN</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>all</em> + PERSONAL PRONOUN</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>half</em> + THE INDEF. ART.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>all/whole</em> + GEOGR. NAME</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><em>all/whole</em> + TEMP. NOUN</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td><em>both</em> + NOUN F. BODY PARTS etc</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

For this part of the study, only material from *The New York Times* and *The Independent* was used. When the number of tokens of a particular variant exceeded 100 in either of the newspaper archives, 100 tokens per corpus were sampled according to the procedure accounted for in Section 4.3.3. When the frequency of a variant in a corpus was lower than 100, all these tokens were used. Three of the factors constitute a special case: type of central determiner, noun vs. demonstrative pronoun as head and number and countability. For these, all tokens occurring in the corpus were included since they had been separated in the corpus queries, where particular words (e.g. *all* + *the* and *all* + *this*) had to be searched for.

For each variable, the distribution of variants in one category was compared with the distribution in the other category or categories (see Section 4.3.3). Such comparison in a constructed example is illustrated in Table 7.2 and 7.3, the former exemplifying a case of correlation and the latter of non-correlation.

---

116 In these cases, the frequencies were normalised to 100 on the basis of their internal distribution into different categories. Thus, for instance, if one variant comprises only 50 tokens and these are distributed over two categories (14 in category A and 36 in category B), the normalised frequencies will be 28 and 72 respectively. This measure makes it easier to compare the low-frequency variants with the 100-token samples of higher-frequency variants. Of course, we must be aware that normalised frequencies may give a skewed picture of reality. For the chi-square testing, only absolute figures were used.
Table 7.2. Constructed example of frequencies with correlation between the presence of X and Variant 1

<table>
<thead>
<tr>
<th></th>
<th>Variant 1</th>
<th>Variant 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of X</td>
<td>40</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Absence of X</td>
<td>60</td>
<td>80</td>
<td>140</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

So how should this (and the following) table be interpreted? If a certain factor (e.g. the presence of X) is analysed and the distribution of the two variants is 40–20 in the presence of X and 60–80 in the absence of X, it can then be assumed that there is a positive correlation between the presence of X and Variant 1, and consequently also between the absence of X and Variant 2 (Table 7.2).

According to the null hypothesis, i.e. the expected frequencies when there is no correlation at all between categories and variants (Table 7.3), the number of tokens would be the same for each variant: for instance, 40–40 and 60–60.

Table 7.3. Constructed example of frequencies with no correlation

<table>
<thead>
<tr>
<th></th>
<th>Variant 1</th>
<th>Variant 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of X</td>
<td>40</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Absence of X</td>
<td>60</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>200</td>
</tr>
</tbody>
</table>

In other words, it can be concluded that, judging by the data in Table 7.2, this particular linguistic factor (the presence of X) influences the choice of variant to some extent. It should be remembered that a correlation found between such a linguistic factor and a variant only implies that the likelihood for a certain choice is greater than otherwise, not that a certain form is required. The chi-square test was used to test the significance of all correlations. In the presentation, the correlations were significant at the <0.01 level unless otherwise indicated. The relative strength of the correlations as they appear in terms of phi coefficients (see Section 4.3.4) will be discussed in Chapter 8. The phi coefficients are given in Appendix E, Table E3.

When different factors are explored, it sometimes happens on closer inspection that two seemingly independent factors turn out to be related to each other. This means that the correlation between one variant and a particular factor is caused by the correlation between this variant and another linguistic factor. There are some examples of such dependency in the material. Two different factors may also cancel each other out, so that a factor that should have exhibited a correlation does not do so because another linguistic factor works in the opposite direction.

The following model will be used for the presentation of the results. In cases where there was a correlation in both the British and the American samples with respect to a particular linguistic factor, frequencies demonstrating this tendency are shown in a bar chart. Observe that the frequencies from the two corpora were conflated in the graphs and also when tested for significance, but the separate figures (British/American) can be found in tables in Appendix D. In these tables,
correlations are presented in bold type and normalised frequencies in italics. If no correlation was found, or if tendencies pointed in different directions in the two corpus samples, this will only be mentioned briefly in the text. It should be taken into account that there is a small risk of missing relevant information by paying little attention to tendencies that were only spotted in one of the corpora. As the aim was to find correlations that occur regardless of regional variety, I decided that this was the best method (also see Section 2.1.2). Finally, it should be remembered that a correlation may always be a matter of chance, even when evidenced in both corpora and even if statistically significant.

We will now go through all the various linguistic factors in turn. The first factor of study is the type of central determiner in NPs with common nouns.

7.2 Type of central determiner in the NP

In NPs with all/whole, both and half combined with a common noun, four different types of central determiners can follow the quantifier: (i) the definite article, (ii) a possessive, (iii) a demonstrative and (iv) a specifying genitive construction. In the case of both, there are three variables with different variation patterns (both vs. both the vs. both of the; both these/my vs. both of these/my; both vs. both my vs. both of my, the latter regarding NPs with nouns denoting body parts or kinship, see Section 3.3.4.2). These variables cannot really be compared with each other. The focus in this section is thus on comparable variables: NPs with all/whole and NPs with half.

The presentation of type of central determiner differs from those where other linguistic factors are involved, in that the whole material, not samples, was used here, as described above. The graphs, which also look different from those in the rest of the chapter (columns and rows reversed), illustrate the relative difference (in percentages) between the determiners in the distribution of variants117. In NPs with all and mass nouns, there were no statistically significant differences between the determiners. As far as all and plural nouns is concerned, there was a significant correlation between all of and a possessive determiner and a genitive phrase in the American material, which did not recur with statistical significance in BrE.

The first bar chart (Figure 7.2) shows the distribution of the four variants in NPs with all/whole and single count nouns. Since the figures in the charts are percentages (based on the average of the frequencies in the British and American material) and the corpora contained very few genitives, the latter were excluded from the graph.

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117 For methodological reasons, in genitive constructions the statistics only comprise tokens where the genitive is preceded by the definite article, a possessive determiner or a demonstrative determiner (not those where the genitive is a proper noun). Had these been included, the frequencies would have been larger. However, this does not necessarily mean that the relations between the variants would have been affected.
Figure 7.2. Type of central determiner in NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN

There were clear differences between the different types of determiners. The whole variant predominated most in NPs with the definite article, as in (7:1), and was least frequent in NPs with a possessive determiner.

(7:1) ‘The whole question this season was going to come down to me and Kevin being healthy,’ he said. (NYT95)

The all variant was much more frequent in NPs with a demonstrative determiner, as in (7:2), and (especially) a possessive determiner, as in (7:3), compared to NPs with the definite article.

(7:2) Hidden within these mags live Marie Stopes, Eleanor Marx, Olive Schreiner - all that half-forgotten generation of feminists and idealists who had faith in women, [...] (IND95)

(7:3) ‘I’ve worked so hard all my life, said Mr. Nakane [...] (NYT95)

A majority of NPs with all and a possessive included the noun life, as in (7:3). The all of and the whole of variants were marginal with all three determiners.

Tokens where the determiner was a genitive construction were few but interesting, since there are two different ways in which the genitive determiner can function. In NPs with whole, the quantifier generally quantifies the noun in the genitive rather than the second noun, as in (7:4). The whole quantified NP functions as a determiner.

(7:4) I became fluent in Afrikaans, much to my whole family’s amazement. (IND95).

Here, the genitive could not be replaced by a possessive determiner (*their whole amazement), as it usually can when the second noun is quantified, as in (7:5).
(7:5) [...] he was restricted in his moves because he did not control all of the county’s budget. (NYT95) (⇒ all of its budget).

We will return to genitives in relation to syntactic function\textsuperscript{118} in Section 7.5. Figure 7.3 illustrates the distribution of half and half of and plural nouns.

![Bar chart showing the distribution of half and half of in NPs with central determiners]

**Figure 7.3. Type of central determiner in NPs with half, determiner and plural noun**

The half variant predominated in NPs with the definite article, a possessive determiner and (less strongly) a genitive construction, as in (7:6) to (7:8). In contrast, half of was much more frequent in NPs with a demonstrative determiner, as in (7:9).

(7:6) After a seven-month strike, half the internal programmers were moved to other areas. (IND95)

(7:7) The two Buckinghamshire secondary schools in Burnham take half their pupils from Slough. (IND95)

(7:8) There was little change in the first nine months of last year, according to preliminary data from about half the state’s 234 hospitals [...] (NYT95)

(7:9) ‘More than half of these children live in families with working parents,’ she said, [...] (NYT95)

It should be observed that there were few tokens that included a demonstrative determiner.

\textsuperscript{118} Also note that the genitive itself is not always a determiner, but is sometimes used as a descriptive/classifying modifier (see Section 7.4.1).
7.3 Factors relating to the NP head

This section will bring up various aspects, both grammatical and semantic, relating to the head of the noun phrase. The starting-point in this section is that in NPs with a noun, it is this noun which is the headword. We will return to whether this is an appropriate analysis in noun phrases with of (as in all of the children) in Section 7.3.3. The presentation first deals with a grammatical factor: noun vs. demonstrative pronoun as the head of the NP. It moves on to an aspect involving both grammar and semantics: number and countability in NPs with common nouns. The section ends with four semantic aspects: (i) divisibility in NPs with singular count nouns, (ii) animacy in NPs with common nouns and geographical names, (iii) natural vs. arbitrary time division in NPs with temporal nouns and finally (iv) the semantic type of “head” in NPs with half, the indefinite article and a singular noun or numeral.

7.3.1 Noun vs. demonstrative pronoun as head

As described in Section 5.1.2, variants with of were more frequent when the head of the noun phrase was a demonstrative pronoun, as in (7:10), than when the internal structure of the NP was [DETERMINER + NOUN], as in (7:11)\(^{119}\).

(7:10) New norms, some protocols, some guidelines – all of these will develop the way they develop in any part of society as it undergoes change. (NYT95)

(7:11) He left his mark on all of these congregations, [...]. (IND95)

This tendency recurred with all three quantifiers (all, both and half), and was particularly strong with both of, as in (7:12), and half of\(^{120}\), as in (7:13).

(7:12) Both of these were eclipsed by the devastating 7.1 in 1886 in Charleston, S.C. (NYT95)

(7:13) More than half attended college, and half of those graduated. (NYT95)

There were fairly few instances of both of and a demonstrative pronoun, however. Quirk et al (1985: 258, 373) remark that the of form is often “preferred” with demonstrative pronouns, but they do not provide any explanation of this fact. One simple but possible reason is that it is a question of rhythm, i.e. that speakers avoid two adjoining stressed syllables by the insertion of of. As noted

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\(^{119}\) An additional observation was that in the singular count noun group the of-less all variant was much more frequent with a possessive determiner (all my etc.) than with the definite article or a demonstrative determiner (all the/this etc.). The reason was that this group included a great many instances of all my/his etc. life.

\(^{120}\) As mentioned above, these two variables will not be part of the rest of the analysis of linguistic factors. However, they were included here since the division had already been made in the corpus queries.
in Section 4.2, many of the examples from the newspaper corpora are written-down interviews, i.e. spoken (although edited) material.

### 7.3.2 Number and countability in NPs with common nouns

We saw in Section 5.1.1.1 that there are clear differences in variation pattern with respect to number and countability as far as variants with *all* and *whole* are concerned. This means that the material had to be organised into different variables (*all/whole* + Singular Count Noun, *all/whole* + Mass Noun and *all* + Plural Noun). In NPs with a singular count noun, the *whole* variant, as in (7:14), was the preferred alternative, while the *all* variant predominated in NPs with mass nouns, as in (7:15).

(7:14) They are not signing up to the *whole* Charter 88 agenda. (IND95)

(7:15) Leaving *all* the hard work to someone else is also an option. (IND95)

The variant with *the whole of* was the least frequent alternative in the *all/whole* + Singular Count Noun variable, and almost non-existent in NPs with mass nouns. Plural NPs with *whole* were rare and have a different meaning from the majority of those with *all* (see Section 3.3.4.4).

One particularly interesting issue is NPs with mass nouns and the quantifier *whole*, since Quirk et al (1985:260) do not consider this combination of quantifier and noun type acceptable. As we saw in Section 5.1.1.1, the phrase *the whole time* constituted a large part of these examples. The word *time* is a mass noun when describing “something that is measured in minutes, hours, years etc. using clocks” (Longman 2003), and the countable form of *time* means something else (‘an occasion’). It seems that in some cases, the word *time* in the first sense may be thought of as a countable unit, in which case *the whole* would be the most natural quantifier. There could be a difference between *all* (of) the *time* and *the whole time*, the latter being more likely than the former to refer to a more specific time period, *whole* being used for individuating the reference of the noun phrase. Cf. *He was silent the whole time*, which refers to a specific period of time, with *He was interrupting me all the time*, where the NP seems to have more generic reference, meaning something like ‘continually’ (cf. Labov 1984:53). This interpretation strengthens the idea of *time in the whole time* being perceived as a count noun. On the other hand, *the whole time* can also be used more generically (see Section 3.3.4.4).

The borderline between count and mass is often fuzzy. Depending on the context, many words can belong to either of the categories (cf. 3.3.4.4). The contextual interpretation was taken into account with tokens which dictionaries (e.g. Longman 2003) denote as both count and mass. As mentioned in Section 5.1.1.1, the very few really ambiguous cases were classified according to the quantifier with which they occurred, i.e. as a mass noun with *all* and as a singular count noun with *whole*.

The other mass nouns used with *whole* in the material were *acreage, air, architecture, attention, baggage, behaviour, brouhaha, chaos, chemistry, conduct, demeanour, exhilaration, hurly-burly, hypocrisy, hysteria, machinery, mayor-
alty, mystique, panoply, politics, renovation, rigmarole, shame, sharing, significance, socialising, stability, stock¹²¹, stuff, technology, trade, uneasiness and vastness, all of which are invariably mass nouns in Longman (2003). Abstract nouns, which account for the majority of these examples, are more prone to be used as count nouns than, for instance, nouns expressing a concrete substance (?the whole butter). Again, it can be hypothesised that whole is used for individuation in a particular situation. A question arising is whether the people who used whole in combination with these words were conceptualising them as count nouns or whether their idiolects simply make no distinction between singular count nouns and mass noun in the choice between the two quantifiers.

As observed in Section 5.1.1.3, the tokens with half were, in conformity with the all groups, also divided into singular count nouns, mass nouns and plurals. In the British material, the half of variant was more frequent in NPs with mass and plural nouns than in NPs with singular count nouns. There was no difference between the noun types in the American corpus.

The variable all + DEMONSTRATIVE PRONOUNS was analysed for number only. The singular tokens (all of this/that) invariably had complex antecedents, such as phrases, clauses or sentences. Therefore, no distinction into singular count and mass was made. The material exhibited no correlation with variants consistent across the two corpus samples. It can be noted, however, that, regardless of variant, there were overall far more instances of singular NPs, as in (7:16) and (7:17), than plural ones, as in (7:18) and (7:19).

(7:16) All this is pure Highland magic: here nature and the mark of man […] are in rhapsodic equilibrium. (IND95)

(7:17) All of that makes sense. (NYT95)

(7:18) Beneath all these is an underworld of gnomes, doing the usual gnomish things with wheelbarrows, watering cans and fishing rods. (IND95)

(7:19) Midwood has all of those, plus access to Brooklyn College across the street, […]. (IND95)

The next section discusses the divisibility of the head in NPs with singular count nouns, which is an issue clearly related to that of number and countability.

### 7.3.3 Divisibility

Most examples of NPs with singular count nouns and mass nouns as heads behaved in line with the expectations, derived from descriptions in the literature. NPs with singular count nouns mainly take whole rather than all (of), whereas NPs with mass nouns mainly take all (of) the rather than whole. However, as reported on in Sections 5.1.1.1 and 7.3.2, the material also included cases where

¹²¹ This is a word that can be both count and mass. In the context in which it occurs, it means ‘the total value of a company’s shares’ (cf. Longman 2003), in which case Longman classifies it as a mass noun.
whole is used with mass nouns, and similarly there are cases of all in NPs with singular count nouns. I decided to look into divisibility in the NPs with singular count nouns since Quirk et al (1985:259f) suggest that the of-less all variant is only used with singular count nouns if the noun is divisible, and that all of and whole are the most natural alternatives. The hypothesis was that the heads in all tokens of all and a singular noun (as in all the/my/this book) in the material would be divisible, or that there would at least be a higher proportion of indivisible nouns among those NPs with all of and whole (of) than among those with of-less all.

Divisibility is not always a straightforward concept. For instance, as mentioned in Section 3.3.4.4, there is often a possibility of regarding not clearly divisible nouns as divisible under certain circumstances. The main principle here has been that in order to be categorised as divisible, the noun must be divisible into parts that are similar in kind if not in size, just as is the case with mass nouns. For instance, a word like forest was seen as divisible since it comprises a number of trees. Although there is subjectivity involved in my analysis, I will ensure that all cases of all in combination with indivisible nouns are accounted for. All collective nouns, such as crew, family and government are clearly divisible, since they are as it were made up of different individuals and thus have a kind of “plural” function, sometimes reflected in the choice of plural agreement (see Section 3.3.4.4). Words denoting geographical areas, such as city, country and world were also classified as divisible on the grounds that they can quite easily be divided into smaller areas (e.g. city into streets or blocks, country into regions and world into countries). Similarly, temporal nouns\(^\text{122}\) are divisible into smaller time units (e.g. week into days). There were also a number of other nouns which were seen as divisible, such as career (into positions), history (into events), life (into years) and song (into notes). As mentioned in Section 3.3.4.4, Quirk et al (1985:260) claim that all is mainly used with abstract divisible nouns. Indeed, this was true of all tokens except two: forest and catalogue.

Figure 7.4 shows how the categories correlated with the variants. The hypothesis that of-less all is never used with indivisible nouns was not confirmed. Still, indivisible nouns were in the minority in the all group (22 tokens out of 200), and indivisibility was far more frequent with the whole variants\(^\text{123}\). Also, in accordance with Quirk et al (1985:260), the correlation pattern in NPs with all of differs from that in NPs with all, instead resembling the variants with whole (of).

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\(^{122}\) The occurrences of temporal nouns here are from NPs with demonstrative determiners, as in all this night. Cases with the definite article are included in the special subgroup with simple all as an alternative (cf. Section 5.1.6.1).

\(^{123}\) In the case of the the whole of + DETERMINER variant, the majority of BrE tokens were indivisible (60 out of 100). The American material comprised only 10 tokens, 8 of which were divisible and 2 indivisible.
The noun types in NPs with the of-less all variant classified as indivisible were \textit{area, body, brain, budget, debt, fall} \textsuperscript{124}, \textit{heart, investment, period, plan, rise, trophy, valley}, and \textit{way} \textsuperscript{125} (some of them occurring more than once). Here are a few example sentences:

(7:20) We know \textit{all this area} is a flood zone. (NYT95)

(7:21) I don’t think the Taliban came \textit{all this way} to stop at the gates [...] (IND95)

The referents of these nouns are, in my view, at least not clearly divisible into parts of an equal kind. Admittedly, it could be argued that some of them are divisible, even if those cases are not as obvious as those accounted for above. For instance, nouns that can express ad hoc division, such as \textit{area} and \textit{period}, could be divided at a lower level into sub-areas and sub-periods. Furthermore, some of the words can be perceived as mass rather than count nouns, even though they are countable in \textit{Longman} (2003). In such cases, \textit{all} would be a natural choice. This reasoning applies, for instance, to a word like \textit{debt}, which is used as a mass noun in an expression like \textit{in debt}.

To conclude, since the majority of tokens of \textit{all} in combination with a singular count noun could quite easily be interpreted as having a divisible referent, Quirk et al (1985:259, 381) are obviously right in their statement that divisibility is a crucial factor. \textit{All} and \textit{all of} having different correlation patterns may be seen

\textsuperscript{124} \textit{Fall} is used in this case with the meaning “a reduction in the amount, level, price etc. of something”, classified as a count noun by \textit{Longman} (2003).

\textsuperscript{125} Note that the tokens with \textit{way} here are used in NPs with demonstrative determiners, as in \textit{all this way}. Cases with the definite article (\textit{all the way}) were excluded in this chapter, as accounted for in Section 7.1. Quirk et al (1985:259) regard this noun as divisible.
as supportive of the point of view that NPs with these two forms should be analysed as two different syntactic structures. Quirk et al (1985:258) and Huddleston & Pullum (2002:333, 376), among others, suggest that all in a phrase like all of the children is the head of the noun phrase (cf. Section 3.3.4.1). If all is the head, of the children should be a postmodifier, which may explain why the divisibility of the noun is less important than in NPs where all directly precedes the [DETERMINER + NOUN] structure.

7.3.4 Animacy

Animacy in language, an important and sometimes complicated concept, was discussed in Section 3.3.4.4 in relation to quantified noun phrases with all and geographical names and with all/whole and collective nouns. There are different ways of analysing collective nouns and geographical entities. Yamamoto (1999:16ff, 139) classified virtually all cases as inanimate, although observing that they can sometimes be regarded as having “inferred animate” reference. Levin (2001:126), on the other hand, considered all collective nouns in his study that refer to groups of human beings animate. I used a model where animacy was divided into “real animate” and “inferred animate”, even though these two were grouped together as animate in the graphs (see Appendix D for the separate figures). Some collective nouns were invariably categorised as “real animate”, e.g. family and staff. These are seldom looked upon as abstract entities, which is reflected in the fact that they are frequently used with plural agreement in verbs and pronouns (cf. Levin 2001:131)126. “Inferred animate” was used about words which can be thought of either as groups of individuals or as (administrative/sports/geographical etc.) entities, e.g. government, school, team and geographical names. Tokens of this type were included in the group if, in the co-text, there was some kind of signal of animacy, underlined in the following examples:

(7:22) Nevertheless, the pair were wed in 1673 at a ceremony boycotted by almost all the court except the loyal Sir Edward Carteret, […]. (IND95)

(7:23) All the world loves a winning Ferrari. (IND95)

(7:24) ‘Both of the companies are saying we believe in the world of interactivity but we’re bringing this world into broadcast,’ Mr Gates said. (IND95)

All tokens classified as animate are of the “inferred animate” kind, as in (7:25).

(7:25) When the right-hander was named to the American League All-Star team last week, all of Nicaragua rejoice[d]. (NYT95)

Section 7.3.4.3 will compare Quirk et al’s (1985:260) idea about geographical names with the corpus material, but first we will look at common nouns.

126 In NPs with all, both and half and plural nouns, there were of course also a number of unambiguously animate cases, such as all the children or both doctors.
7.3.4.1 NPs with *all/whole* and singular count nouns

In Section 6.1.6.3 we saw that in NPs with collective nouns *all* was more frequent in BrE than in AmE. This fact was discussed in terms of *all* foregrounding individuals, whereas *whole* foregrounds the entity (Huddleston & Pullum 2002:375). In line with this, one could expect a correlation in BrE (i) between *all* and animate reference, and (ii) between *whole* and inanimate reference in the variable with *all/whole* and singular count nouns, provided the material contains a sufficiently large number of collective nouns. The hypothesis was corroborated, as illustrated by Figure 7.5, which only shows the British material since no correlation occurred in AmE.\(^{127}\)

![Figure 7.5. Animacy in NPs with *all/, /DETERMINER/ and SINGULAR COUNT NOUN*](image)

Animate reference (real and inferred) correlated positively with *all* and *all of*, as in (7:26) and (7:27), while inanimate reference correlated with *whole* and *the whole of*, as in (7:28) and (7:29).

(7:26) Among those who will not benefit are part-timers who joined TSB after 1976 but left before December 1990, when the bank admitted *all its staff* into the scheme. (IND95)

(7:27) But Mark Jackson is going to make *all of their team* better. (NYT95)

(7:28) Indeed, it seems that *the whole success story* was sparked off by a quarrel. (IND95)

(7:29) The Cornwall Coast Path runs 268 miles around *the whole of the county*, […] (NYT95)

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\(^{127}\) Henceforth, correlations that only occurred in one of the corpora are only mentioned in the text and not illustrated in the form of graphs and tables in the appendix. This is a special case, however, since the result corroborated the hypothesis about a region-specific grammatical tendency.
Moreover, in the simple *all* variant there were more tokens with animate reference proper than with inferred animacy (such as *government* and *school*). In the other three variants it was the other way round.

### 7.3.4.2 NPs with plural nouns

The variables with *all*, *both* and *half* in NPs with plural nouns were all included here. No statistically significant correlations occurred in NPs with *all* and *half*, but there was a positive correlation in the variable with *both* (Figure 7.6).

![Figure 7.6. Animacy in NPs with both, /THE DEFINITE ARTICLE/ and PLURAL NOUN](image)

Here, inanimate reference correlated with simple *both*, as in (7:30). There was also a correlation between animate reference and *both the* and (slightly more saliently) *both of the*, as in (7:31) and (7:32).

(7:30) *Both permissions* were given, on appeal, by the Government in the 1960s after refusals by the county council. (IND95)

(7:31) *Both the newcomers* were backed by a political group with ties to the state’s largest street gang, Gangster Disciples. (NYT95)

(7:32) In Jackling’s eyes *both of the Hewlett women* were immensely desirable, with long luscious lines like luxury lawnmowers. (IND95)

In all cases except simple *both* in NYT95, there were more tokens of animate reference proper than of inferred animate reference. The largest proportion of tokens of inferred animacy occurred in the *both of the* variant (in both corpora), but note that in NYT95 there were very few tokens of this kind.

### 7.3.4.3 NPs with *all/whole* and geographical names

Quirk et al (1985:260) remark that there is a difference in the use of totalising quantifiers depending on whether the noun phrase refers to a geographically or
politically defined area or to the people inhabiting it. In the former case, the *the whole of* variant, as in (7:33) is claimed to be preferred, while the simple *all* variant, as in (7:34), is said to predominate in the latter.

(7:33) Ours is the cleanest restaurant in *the whole of India*. (NYT95)

(7:34) But Beijing is also the home of Tiananmen Square, the place, according to large signs posted around its perimeter, that *all China* longs for. (IND95)

The third alternative, *all of*, is not discussed by Quirk et al in terms of animacy. Three interesting results could be obtained from the analysis (see Figure 7.7).

![Figure 7.7. Animacy in NPs with all/whole, /THE DEFINITE ARTICLE/ and GEOGRAPHICAL NAME](image)

First, there was indeed a positive correlation between *the whole of* and inanimate reference on the one hand and simple *all* and (inferred) animate reference on the other, as in examples (7:33) and (7:34) above. The distinction was not absolute, since the material comprised tokens both of *the whole of* used with animate reference, as in (7:35), and of simple *all* used with inanimate reference, as in (7:36).

(7:35) Meanwhile, *the whole of Europe* is praying loudly that your party loses the next election. (IND95)

(7:36) This was when Dr. Weeks realized he had entered, as he said, ‘the largest tomb in the Valley of the Kings and maybe the largest ever found in *all Egypt.*’ (NYT95)

Second, even though this positive correlation strengthens the claim made by Quirk et al that there is a difference between the variants, simple *all* was in fact more frequent with inanimate reference than with animate (105 tokens of inani-
mate vs. 95 tokens of animate reference). Third, all of stands somewhere between simple all and the whole of as regards frequency distribution. We will return to the concept of animacy in relation to syntactic function (7.5.5), since these two factors seem to be related to some extent.

### 7.3.4.4 NPs with both and nouns for body parts or kinship

In the subgroup variable with both, there were no instances of inferred animacy, since all nouns either denote body parts or people in the form of kinship expressions. Figure 7.8 illustrates the variation.

#### Figure 7.8. Animacy in NPs with both, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS OR KINSHIP

Here we find the same correlation as in the both (/of/the) variable: (i) between simple both and inanimate reference (i.e. words for body parts), as in (7:37), and (ii) between both (of) my and animate reference (i.e. words for kinship), as in (7:38) and (7:39).

(7:37) I saw a man with a gun, holding it with both hands. (IND95)

(7:38) Both her daughters had dropped out of James Monroe High School in the Bronx after hallway attacks, [...] (NYT95)

(7:39) ‘They wanted the court to provide them with what their child most needs, which is a legally recognized relationship with both of her parents.’ Ms. Dohrn said [...] (NYT95)

### 7.3.5 Natural vs. arbitrary time division

As described in Section 3.3.4.4, J. Hudson (1996:119) suggests that in NPs with temporal nouns, there is a difference in the choice of variant according to whether the noun belongs to a category of “natural” time division, or whether it
is arbitrary and only observable by means of a man-made measuring instrument. Whereas *the whole* occurs with both kinds of temporal nouns (and thus is “un-marked”), simple *all* is mainly used with words from the natural categories. J. Hudson’s categorisation (Table 7.4, somewhat modified and extended) was used as the basis for an analysis of the NPs with temporal nouns to check whether her ideas would tally with my corpus material. Not all of the nouns in this table occurred in the corpus samples, but all were represented in the total material.

### Table 7.4. Natural and arbitrary words for time

<table>
<thead>
<tr>
<th>Natural time division</th>
<th>Arbitrary time division</th>
</tr>
</thead>
<tbody>
<tr>
<td>afternoon</td>
<td>century</td>
</tr>
<tr>
<td>autumn</td>
<td>decade</td>
</tr>
<tr>
<td>day</td>
<td>hour</td>
</tr>
<tr>
<td>evening</td>
<td>minute</td>
</tr>
<tr>
<td>fall</td>
<td>second</td>
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<tr>
<td>month</td>
<td>term</td>
</tr>
<tr>
<td>morning</td>
<td>week</td>
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<tr>
<td>night</td>
<td>weekend</td>
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<tr>
<td>season</td>
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<td>spring</td>
<td></td>
</tr>
<tr>
<td>summer</td>
<td></td>
</tr>
<tr>
<td>winter</td>
<td></td>
</tr>
<tr>
<td>year</td>
<td></td>
</tr>
</tbody>
</table>

J. Hudson’s argumentation in borderline cases is accounted for in Section 3.3.4.4. The difference between her analysis and mine is that she regarded *week* as a natural category, since it is based on other natural categories (days and nights). I disagree with this because with such a categorisation, *century* and *decade* (based on years) would also have to be regarded as natural. The existence of words that denote ‘seven days’, ‘ten years’ and ‘hundred years’ (rather than some other numbers of days and years) seems to be purely arbitrary.

The result is presented in Figure 7.9. There was indeed a correlation (significant at the <0.05 level only), in line with J. Hudson’s suggestion, (i) between natural temporal nouns and simple *all*, as in (7:40), and (ii) between arbitrary nouns and *the whole*, as in (7:41).

(7:40) Staring at a screen *all day* has given me a headache. (IND95)

(7:41) ‘I wonder if anyone has had the experience of getting caught up in a book for *the whole weekend*?’ he asked brightly, […]. (NYT95)

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129 J. Hudson (1998:119) observes one exception, *term*, a man-made concept, which also occurs with simple *all*. 

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Figure 7.9. Natural and arbitrary time division in NPs with *all/whole*, *THE DEFINITE ARTICLE/* and TEMPORAL NOUN

There were also cases of *all* used with words which were categorised as “arbitrary”. Of these tokens, the great majority include the word *week*, which J. Hudson classifies as belonging to the “natural” category\(^{130}\). Furthermore, a few instances of *all weekend* were found in the material.

As for the other words in this category (*century, decade, term*), there was one single instance of *all term*\(^{131}\) in the entire corpus material (from the spoken British corpus. There were no instances of NPs with *all* in combination with *century* and *decade*. All other cases were used with *the whole* rather than *all*. This could of course mean that they cannot be used with this quantifier, which strengthens J. Hudson’s hypothesis about a relation between the natural–arbitrary division and the use of quantifiers. There were very few instances of these words overall, two of *the whole century* and one of *the whole decade* in the entire corpus material. A complementary search of the World Wide Web revealed that *the whole* is more frequent than *all* with *century* and *decade*.

Perhaps the natural–arbitrary distinction is not the only important factor regarding the choice between *all* and *the whole*. We will see later on (Section 7.5.6.1) that the syntactic function of the NP is crucial to this choice (simple *all* occurring almost exclusively in the adverbial function). Further, some of the words belonging to the “arbitrary” category would be unnatural to use with *all/whole* in adverbial function (*second, minute, hour*). So, the “syntactic function” factor could be the main reason for those words not being used with *all* rather than their being examples of arbitrary time division.

\(^{130}\) Had Hudson’s categorisation of *week* as a natural category been used, there would have been a slightly stronger correlation (significant at the <0.01 level) between “natural time division” and *all* and between “arbitrary time division” and *whole*.

\(^{131}\) There were very few instances of *term* overall – only three occurrences of *the whole term* in IND95 and none in NYT95.
7.3.6 Type of “head” in NPs with half, the indefinite article and a singular noun or numeral

As described in Section 3.3.4.3, Berry (1997:70f) claims that there is a meaning difference between the variants in the half + THE INDEFINITE ARTICLE + SINGULAR NOUN/NUMERAL variable. According to this idea, half a/an refers to a part-whole relationship (half a bottle out of a whole bottle), whereas a half denotes an established unit (e.g. a half-bottle). This postulated difference in meaning was problematic, since the context was often not informative enough to allow such conclusions based on the corpus material. Instead, I decided to semantically examine different types of NP “heads” to see whether these different NP heads would influence the choice of variant. Additionally, it was hoped that such a study would reveal something relevant to Berry’s claim. The “heads” were categorised in the following way:

(a) nouns expressing time or space (e.g. hour, year, inch, mile)
(b) nouns for partitive relations (e.g. bottle, cup, pint, pound)
(c) numerals and nouns to do with figures (e.g. dozen, million, percent)
(d) other nouns not regularly associated with measurement (e.g. game, share, victory)

The main outcome of the analysis was that in the American material, there was very little difference in distribution of variants between the different “head” types. The differences in the British material were also quite small. Nevertheless, they were at least a little more conspicuous than in AmE.

Let us now have a look at a correlation that was consistent across both corpora, although it was very weak in the American material and only significant at the <0.05 level (see Figure 7.10). The correlation only involved two of the categories, so only these are included in the figure.

Half a/an correlated positively with a numeral or noun to do with figures, as in (7:42), and a half with a partitive construction, as in (7:43).

(7:42) I saw about 30 horses and bought half a dozen, and one of them was Antonin. (IND95)

(7:43) The menu does not vary much, either: hot chili and vegetables, a piece of bread, an orange and a half-pint of milk. (NYT95)

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132 What is referred to as the “head” in this context is the word that is quantified by half. From a strictly syntactic point of view, this may be erroneous, since in an NP such as half a dozen boys, the real head would be boys rather than dozen. However, the item of relevance to the present analysis is the quantified word. For practical reasons this factor was included in the umbrella section concerning various aspects of the (real) head of quantified NPs (also cf. Section 7.3.3).

133 In a few cases in the material, the partitive relation was understood rather than overtly expressed.
The correlation (i) between *half a* and numerals and (ii) between *a half* and partitives could possibly be related to Berry’s suggestion about the semantic difference between *half a/an* (part of whole) and *a half* (established unit). Interestingly, the differences between the variants were smaller in AmE than in the British material. This may be explained by the fact that *a half* was much more frequent in AmE (41%) than in BrE (6%) (see Section 6.1.4). With *a half* being so frequent in AmE, people may be less inclined to use it for semantic distinction (cf. Langacker on conventionalisation of variants in Section 2.1.2). If, however, a variant is used sparingly, as in BrE, speakers may be more inclined to uphold this distinction, instead reserving *a half* for cases of established units. On the other hand the “established unit” concept probably applies mainly to certain words, such as *bottle*, as in (7:44). This is the word Berry uses for illustration.

(7:44) He would buy a dozen beers, *a half-bottle* of whisky or gin and a few tonics […] (IND95)

It seems more unlikely that NPs like *half an hour/a half hour* or *half a dozen /a half dozen* could be distinguished into a part-whole meaning and an established-unit meaning.

### 7.4 The presence of certain elements in the NP or its near co-text

#### 7.4.1 Modifiers

This section deals with the syntactic complexity of the noun phrase in terms of modification. Two simplifications were made as a starting-point for the classification (cf. Section 3.1.1.3). First, the distinction between modification and com-
plementation is problematic, so I decided that all elements in the noun phrases that were neither heads nor determiners would be categorised as modifiers, regardless of their semantic function. Second, every token where two nouns occurred immediately after each other was categorised as a premodified noun, leaving the fuzzy distinction between compounds and premodified nouns aside. Apart from two nouns written together as one word, the only cases where two juxtaposed nouns were regarded as a compound were (i) when there was a hyphen between the two nouns and (ii) in geographical names like the Channel Islands, both of which were very rare in the material.

The analysis of modification was only performed on variables with common nouns and the all/whole + temporal noun variable (cf. Sections 5.1.1 and 6.1.6.1) since modification is not used in the other variables. Four categories were identified: NPs with (i) no modifier, (ii) premodifier(s), (iii) postmodifier(s) and (iv) both pre- and postmodifier(s). I decided at a fairly early stage that no more fine-grained division (into different types of pre- and postmodifiers) would be made, since the number of tokens in the samples is only 200 per variant.

The premodifier category consisted of adjectives (e.g. all the right noises), participles (e.g. all the required defences) and nouns (e.g. all the two-digit numbers). As far as postmodification is concerned, the material comprised relative clauses (e.g. all the changes that have been made), non-finite clauses (e.g. all the people depicted in it), prepositional phrases (e.g. all the changes in health care) and also some adjectives (all the guests present) and adverbs (e.g. all the losers tonight). There were also a number of tokens that contained both pre- and postmodification. The charts in this section present the frequencies boiled down to two categories: modification and no modification. Tables D6:1 to D6:4 in Appendix D supply the frequencies for the different modifier categories.

No significant correlations were spotted in NPs with half and plural nouns or NPs with all/whole and temporal nouns. Let us now look at those variables where correlations occurred, starting with singular count nouns (Figure 7.11). There was a positive correlation between the two of-less variants and the “no modifier” category, as in (7:45) and (7:46). A positive correlation also occurred between all of the whole of and the “modifier” category, as in (7:47) and (7:48).

(7:45) He lived here all his life [...]. (NYT95)

(7:46) Genetic tests of risk will in fact render private insurance schemes ineffective as a way of caring for the whole population. (IND95)

(7:47) The military has run the country of 45 million people for virtually all of its modern history. (NYT95)

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134 One exception is NPs with personal pronouns, where postmodification is quite common in the all of variant. Since a floating quantifier is never used with postmodification, all tokens of postmodified NPs with all of us/them were excluded from the study.

135 A genitive sometimes has modifier rather than determiner function. A few tokens of such “classifying” or “descriptive” genitives (cf. Quirk et al 1985:327) occurred in the corpus material, e.g. all of the children’s programs (NYT95) and all the women’s aid centres (IND95). None, however, appeared in the samples analysed here.
Tears streamed down Sampras’s face for practically the whole of the final set, [...] (IND95)

Figure 7.11. The presence of modifiers in NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN

Furthermore, the all, all of and the whole of variants were more often premodi-
fied than postmodified. Contrastingly, the whole variant was more frequently postmodified, usually by means of an of phrase, as in (7:49).

The whole world of our imagination breeds in childhood [...] (NYT95)

Figure 7.12 shows the variation in the all/whole + MASS NOUN variable.

Figure 7.12. The presence of modifiers in NPs with all/whole, DETERMINER and MASS NOUN
In this variable *whole* correlated positively with the “no modifier” category, as in (7:50), and *all/all of* correlated with the “modifier” category, as in (7:51) to (7:52). Note that in NPs with singular nouns, the *all* variant behaved differently, correlating with the “no modifier” category instead.

(7:50) He would have waited at Manger Square the whole time, […]. (NYT95)

(7:51) Despite all its *artful stage management*, this week’s Labour Party conference has been full of the unexpected. (IND95)

(7:52) In February 1994, he imposed a quarter point cut in base rates against all of the advice from both Treasury and Bank officials. (IND95)

The correlation between *whole* and the “no modifier” category can, to a great extent, be explained by the fact that tokens of *the whole time* constitute a majority of the cases, and most of these lack modification, as in (7:50) above, even though some of them are postmodified, mainly by relative clauses, as in (7:53).

(7:53) The whole time I was there I never had a head coach who liked my style of play. (NYT95)

As in the variable with singular count nouns, the head of an NP with *whole* was more often postmodified than premodified. Like the *the whole time* tokens, other postmodified NPs with *whole* were often postmodified by *of* phrases (7:54).

(7:54) The whole stability of the London concert scene is now under threat. (IND95)

There was also a correlation in NPs with *all* and plural nouns (Figure 7.13).

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**Figure 7.13. The presence of modifiers in NPs with all, DETERMINER and PLURAL NOUN**

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All correlated positively with the presence of a modifier, as in (7:55), while there was a correlation between all of and the absence of a modifier, as in (7:56). The all variant again behaved differently than in NPs with singular count nouns.

(7:55) But given all the warnings about air pollution, aren’t cyclists just making things worse for themselves […] (IND95)

(7:56) All of her teams have gone to post-season tournaments […]. (NYT95)

In both variants, premodification was more frequent than postmodification. The strongest correlation occurred in NPs with both (see Figure 7.14).

![Figure 7.14. The presence of modifiers in NPs with both, /THE DEFINITE ARTICLE/ and PLURAL NOUN](image)

Simple both correlated with the absence of a modifier, as in (7:57), and both (of) the with the presence of a modifier, as in (7:58) to (7:59).

(7:57) Both men are retired from British Gas and are not paid a salary. (IND95)

(7:58) Both the final teams will be named today […] (IND95)

(7:59) He said he had been close to both of the boys who were killed […] (NYT95)

There was a particularly strong correlation between both of the and the presence of a premodifier, as in (7:60).

(7:60) Both of the arrested teen-agers live within a mile of the crime scene […] (NYT95)

It can be concluded that in the case of both /of the/ + PLURAL NOUN, the presence of one or more modifiers is an important conditioning factor for the choice of...
variant. The simple both form seems to have become almost a kind of “fixed frame” with an open slot for unmodified (often fairly short) nouns. In contrast, the two other variants (both the and both of the) are the preferred alternatives for more elaborate variants with modification of various types.

7.4.2 An adjacent of

It was hypothesised that, for the avoidance of repetition, there is a stylistic barrier to using all of, whole of, both of and half of if there is an of in the near co-text of the quantifier. This of either introduces a postmodifier, as in (7:61), or directly precedes the NP, as in (7:62).

(7:61) The Walnut Creek CA-based building products company Fibreboard Corp agreed on Jun 20, 1995 to sell nearly all the assets of its wood products business […]. (NYT95)

(7:62) Under the program, officials said, the government will guarantee interest rates of about half the current levels […]. (NYT95)

All variables except half + THE INDEFINITE ARTICLE + SINGULAR NOUN or NUMERAL (where there is no of form) and all/whole + TEMPORAL NOUN (where the of forms very infrequent) were included. In three variables, (i) NPs with personal pronouns, (ii) NPs with demonstrative pronouns as heads, and (iii) NPs with geographical names, an adjacent of only occurs before the noun phrase. Therefore, the only cases where the presence of an adjacent of can be studied are when the NP has prepositional complement function, as in (7:62) above.

The analysis of the corpus material corroborated the hypothesis in most of the variables. The both + plural noun variable showed no correlation, but on the other hand, the tokens of both of the were very few. In the variable with half and a plural noun, there was a (not statistically significant) correlation between the of-less variant and the presence of an adjacent of in the American material. As for all with personal pronouns (all of us – we all etc.), there were very few instances overall of variants where an adjacent of occurs. Strangely, all those five tokens (one in NYT95 and four in IND95) were of the all of us form, as in (7:63). This is contrary to the idea that of-less variants would be preferred when there is an adjacent of in the near co-text of the quantifier.

(7:63) “I know it’s the way the legal system works, but the way we let this guy carry on and make buffoons out of all of us,” she said. (NYT95)

This surprising correlation between all of and the presence of an adjacent of may be explained by the syntactic function of the NP (Section 7.5.3). The analysis showed a positive correlation between all of us and the prepositional complement category. In fact, all the five tokens of all of us had this function.
In the other variables, there was a statistically significant correlation between the of-less variant and the presence of an adjacent of. Figures 7.15 to 7.17 illustrate the variation pattern in NPs with all/whole + SINGULAR COUNT NOUN, all/whole + MASS NOUN and all + PLURAL NOUN respectively.

Figure 7.15. The presence of an adjacent of in NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN

Figure 7.16. The presence of an adjacent of in NPs with all/whole, DETERMINER and MASS NOUN
The correlation between the presence of an adjacent *of* and the *of*-less variant was particularly clear in NPs with demonstrative pronouns as heads. Only two instances of *all of* in combination with an adjacent *of* occurred (see Figure 7.18).

As regards NPs with geographical names as heads, it is difficult to decide whether there was a positive correlation between the two variants with *of* (*all of* and *the whole of*) and the absence of an adjacent *of* (see Figure 7.19). In the British corpus, there was a weak correlation between *all of* and *the whole of* and the absence of an adjacent *of*. In the American material only the correlation between *all of* and the “no-*of*” category was confirmed, not the one between *the whole of* and the “no-*of*” category. On the other hand, the number of tokens of *the whole of* in this corpus sample is very low – only 21 in all (see Table D7:5) – so normalised frequencies may give a less reliable picture of the relations.
Finally, there was a correlation (significant at the <0.05 level only) in the variable with both and nouns for body parts or kinship (Figure 7.20).

The two forms lacking of, simple both and both my, correlated with the presence of an adjacent of. In contrast, both of my correlated with the absence of an adjacent of in the American material. There were no examples whatsoever of an adjacent of in NPs with the both of my variant (but the British corpus contained only one single token of the both of my variant).

7.4.3 Focus markers

In Section 3.3.3.2 the possibility of there being (at least) two meanings of all was discussed: one where totality is in focus (corresponding to the semantic primitive ALL, see Wierzbicka 1996:47), and another where all rather expresses large quantity. Certain types of elements in the NP or its near co-text, e.g. ap-
proximators and other quantifiers\textsuperscript{136}, were expected to put focus on the totality meaning\textsuperscript{137}. Accordingly, since it was hypothesised that all of would be more frequent with totality meaning, it could be expected that the all of variant would correlate with the presence of a focus marker. Most of the focus markers belonged to one of four groups:

(a) quantifiers: many, cardinal numbers etc.
(b) approximators\textsuperscript{138}: about, almost, nearly, substantially, virtually etc.
(c) exceptions: except X, bar X etc.
(d) negators (where the quantifier is clearly within its scope\textsuperscript{139}): not, never etc.

There were also some other elements which were considered to function as focus markers: literally, fully, throughout etc.

Focus markers are also used in NPs with half. In addition to approximators, quantifiers and negators, a few more types occur in these NPs, viz. at least, close to, fully, (no) less than, (no) more than, not even and only. In the case of half, it is not totality that is in focus, but rather the measuring function of half.

The variables included are (i) NPs with all/whole and common nouns (ii) NPs with all and demonstrative pronoun heads (iii) NPs with half and plural nouns and (iv) NPs with half and the indefinite article + a numeral or singular noun.

7.4.3.1 NPs with all

Let us now look at the results as far as NPs with all are concerned. Approximators (such as almost and nearly) and quantifiers (in the form of numerals) were the most frequent types. Indeed, my hypothesis was confirmed in virtually all of the variables investigated (all + common noun, demonstrative pronoun and personal pronoun). Figure 7.21 shows the correlation in NPs with all/whole and singular count nouns.

Interestingly, in addition to the fairly strong correlation between all of and the presence of a focus marker, as in (7:64), there was also a less salient correlation between the whole of and a focus marker, as in (7:65). This could indicate that whole also has both a totality and a large-quantity meaning, as suggested in passing in Section 3.3.3.2. Alternatively, it is just an indication that there is more focus on the totality meaning with of constructions

\begin{footnotesize}
\textsuperscript{136} Quirk et al (1985:258) claim that an of variant is preferred (esp. in AmE) in an [all + DETERMINER + NOUN] variant if the noun phrase includes another quantifier, such as many: all of the many children. This claim, however, is not discussed in terms of totality vs. large-quantity meaning.

\textsuperscript{137} Other elements can emphasise large-quantity meaning instead, such as for in For all the headlines about cuts in the high street banks, jobs in the financial sector have gone up by 200,000 […] (IND95), which could be paraphrased as ‘…in spite of the many cuts…’.

\textsuperscript{138} As mentioned in Section 3.1.1, de Haan (1989: 32) notes that in grammatical descriptions, approximators and other elements preceding the determiner(s) in an NP have often been considered not to belong to the noun phrase, but rather to be modifiers of the whole clause.

\textsuperscript{139} The following sentence is an example of a token that was not regarded as including a focus marker, since the quantified NP is not within the scope of the quantifier: She had never all her life cared very much for women (IND95).
\end{footnotesize}
Figure 7.21. The presence of a focus marker in NPs with *all/whole*, DETERMINER and SINGULAR COUNT NOUN.

(7:64) He has spent virtually *all of his professional career* within the City University system, serving as president of Kingsborough since 1971. (NYT95)

(7:65) The guitarist spends almost *the whole of this period* standing on one leg, his face screwed up, […] (IND95)

In NPs with mass nouns, there was also a fairly clear correlation between *all of* and the presence of a focus marker (see Figure 7.22).

Figure 7.22. The presence of a focus marker in NPs with *all/whole*, DETERMINER and MASS NOUN

Here is an example of the correlation:
(7:66) He works between 20 and 25 days per month; not all of his work is as lucrative as recording: […] (NYT95)

The correlation with the presence of a focus marker recurs with all of in combination with plural nouns (Figure 7.23), as in (7:67).

(7:67) Today all of the family except Franz share one thing in common: they now vote for the Greens […] (IND95)

![Figure 7.23. The presence of focus markers in NPs with all, DETERMINER and PLURAL NOUN](image)

Moving to NPs with personal pronouns, we find a correlation between the all of us variant and the presence of a focus marker, as in (7:68) (see Figure 7.24).

(7:68) Virtually all of them are built with imported lumber, because Japan’s trees are smaller and younger than those found elsewhere. (NYT95)

![Figure 7.24. The presence of focus markers in NPs with all and PERSONAL PRONOUN](image)
There are two possible explanations for this correlation. The first one (along the lines discussed in Section 3.3.3.4), is that there might in fact be two meanings of *all* in combination with personal pronouns: one focusing on totality, and the other just expressing large quantity. This could also be related to the possibility that the *we/us* (...) *all* variant is more frequent in evaluative statements, as in *Men are all the same*. The second explanation is a stylistic one: the use of a focus marker in combination with the *we...all* variant could sometimes result in a clumsy or ambiguous variant (e.g. *nearly we all*). There was only one single token in the 200-token sample of a focus marker (a negator) combined with the *we/us* (...) *all* variant, as in (7:69).

(7:69)  *Will we not all* end up, like the inmates, with no rights but plenty of drugs? (NYT95)

As for the NPs with a demonstrative pronoun as head, only a few tokens that included a focus marker. Most of these were of the *all of* type, in line with the findings above. There were also few instances of focus markers in the variable with *all/whole + GEOGRAPHICAL NAME*. Here, no correlations were found.

### 7.4.3.2 NPs with *half*

Focus markers are also used in NPs with *half*, both in (i) NPs with a definite determiner and a common noun (as in *nearly half the children*) and in (ii) NPs with the indefinite article and a singular noun or numeral (as in *almost half a mile*). Just as in the case of *all*, it was hypothesised that the presence of a focus marker in noun phrases with *half* would be correlated to the form with *of*. The focus marker actually occurred far more often in noun phrases with *half* than in noun phrases with *all*.

The most frequently used focus markers in NPs with *half + PLURAL NOUN* were approximators, quantifiers in the form of numerals and comparing phrases such as *more than* and *less than*. The correlations are presented in Figure 7.25.

**Figure 7.25. The presence of a focus marker in NPs with *half, DETERMINER* and *PLURAL NOUN***

[Bar chart showing the distribution of focus markers in NPs with *half* and *half of*]
In accordance with the expectations, there was a positive correlation between the of variant and the presence of a focus marker, as in (7:70). In this case, however, focus markers frequently occurred in the of-less tokens, as in (7:71), as well.

(7:70) Fewer than half of the duffers are white-collar professionals, it says, with 40 percent blue-collar or clerical workers. (NYT95)

(7:71) While some companies such as North East Gas and Severn Trent gave callers a full answer every time, North West Water’s employees proved unable to come up with a proper answer in nearly half the cases. (IND95)

There seems to be more focus on the measuring function of half if it is followed by of, as in half of the duffers. The focus marker modifies the quantifier (fewer than half), rather than the whole noun phrase (fewer than half of the duffers). This may become clearer if the phrase is “divided” by means of an of (also cf. Section 7.3.4).

Figure 7.26 illustrates the variation in the half + THE INDEFINITE ARTICLE + SINGULAR NOUN or NUMERAL variable. Here I did not have a pre-existing idea about which of the variants might correlate with the presence of a focus marker. In the British material, tokens including a half century used as a more or less fixed cricket term were excluded, since the distribution between different categories was more similar to the distribution in the American material then. The correlation occurred whether the tokens were excluded or not, however. Here the focus markers mainly consisted of approximators and comparisons.

There was a positive correlation between the presence of a focus marker and the half a/an variant, as in (7:72).

(7:72) After years of being a world class performer, Edwards is now out on his own, with a best this year of 18.43m, which is more than half a metre further than any of his nearest rivals have managed. (IND95)

The correlation may have something to do with the postulated semantic difference between the two variants (see Section 7.3.6). If we reason in terms of what the focus marker modifies, as in NPs with plural nouns, it may be more natural for focus markers to be used in partitive relationships than with established units. That is, in the half a/an variant, a focus marker clearly modifies half (nearly half a bottle), whereas in the a half variant, the modification seems to concern the whole NP (nearly a half-bottle).

---

140 A half century should perhaps have been excluded from the whole study as a fixed expression, since no instances of half a century with this meaning occurred in the corpus material. However, in dictionaries I only found the term century (not combined with half). A search of the World Wide Web showed that both half a century and a half century are used in this context. This suggests that a half century is not an entirely fixed phrase even though the corpus material pointed in that direction.
Figure 7.26. The presence of a focus marker in NPs with half, THE INDEFINITE ARTICLE and SINGULAR NOUN or NUMERAL

7.5 Syntactic function of the NP

This final section deals with a linguistic factor which involves the NP in its relation to the whole clause in which it occurs. The noun phrase is typically used in one of the clausal functions of subject, object or predicative, but it can also be used in some functions as part of other clausal elements. The following list provides examples of noun phrases with all/whole, both and half in the different functions described by Huddleston & Pullum (2002:327), previously accounted for in Section 3.1.2.141:

- subject: Both prices exclude tax. (IND95)
- object: I've not expended all of my energy in topical poems [...]. (NYT95)
- predicative: I mean, that's the whole basis of our justice system. (NYT95)
- complement in a prepositional phrase142: And that is true for all of us as well. (NYT95)
- subject-determiner in a noun phrase: [...] his whole life's work. (IND95)
- adjunct in a clause: Was the course closed all winter [...]. (NYT95)

---

141 Huddleston & Pullum (ibid, see Section 2.1.2) account for two more syntactic functions that noun phrases can take on: NP modifiers (as in the opera Carmen) and vocatives. These two did not occur in the material, but one could imagine vocatives such as All of you, come here! and perhaps even All (of) the boys, come here!

142 Observe that some words that are usually used as prepositions (e.g. with) can also function as subordinating conjunctions. Consequently, in a phrase such as with both cheeks burning, the quantified noun phrase is not a prepositional complement but the subject of a non-finite clause (Quirk et al 1985:1003).
• modifier in an adjective phrase: [...] [more than half a percentage point higher] [...] (IND95)
• modifier in an adverb phrase: [A half mile later], they were to stand at the shore [...]. (NYT95)
• modifier in a prepositional phrase: [Half an inch to the right] and the ball would have hit the flag [...] (IND95)
• supplement: Opic does business with 144 countries, all of them – [...] (NYT95)

Since there are so many different categories, bar charts would not be useful and will therefore not be used in this section. Instead tables will be given in the text. None of the variables appeared in all the syntactic functions, apart from the variable with half, the indefinite article and a singular noun or numeral. This will become evident from the tables (7.5–7.13) below.

Before going into the presentation of findings, I offer a number of clarifications. The “subject” category comprises subjects in both active and passive clauses, and in both finite and non-finite clauses. Similarly, direct and indirect objects (the latter very infrequent) were grouped together in the statistics. What Huddleston & Pullum (ibid) refer to as “complement in a prepositional phrase” will, for simplicity’s sake, be called “prepositional complement”.

Huddleston & Pullum (ibid) specify the NP-determiner function as “subject-determiner in NP”, explaining it in terms of the relation between the genitive NP and the following NP, which bears “significant resemblance to that between a subject NP and the verb in clause structure” (as in Sue’s analysis of the passive construction → Sue analysed the passive construction). This relation does not apply to all the quantified NPs occurring in the present study, so the function will just be referred to as “NP determiner”. The function is mainly used with NPs with half, the indefinite article and a singular noun/numeral (see 7.5.4). There were also some instances in the all/whole + SINGULAR COUNT NOUN variable (but only one in the 200-token sample). In the all + PLURAL NOUN variable there can sometimes be ambiguity between an interpretation as an NP determiner and another syntactic function, as in [...] all our friends’ children attend it [...] (IND95). This noun phrase could be interpreted either as ‘all the children of our friends’ (NP determiner) or ‘the children of all our friends’ (subject function). No such cases occurred in the sample, however. In the both + PLURAL NOUN variable, the majority of NPs with a genitive construction were used in the determiner function, as in both bands’ success (IND95).

Henceforth, the term “adverbial” will be used instead of “adjunct”, which Huddleston & Pullum (ibid) prefer, since the latter (to a greater extent than the former) has been used with different meanings in different linguistic theories. Interestingly, Huddleston & Pullum do not include the adverbial function in their account of clausal functions that noun phrases can take on, but defer it to their list of “other functions”, such as determiners and various types of modifiers. The reason might be that noun phrases are not so frequent in this function, but it still seems somewhat strange to group it with complements, modifiers and determiners, none of which can stand on their own as elements of a clause.

What Huddleston & Pullum (ibid) refer to as “supplement” is usually called “apposition” or “appositive noun phrase” in the linguistic literature (cf. e.g.
Quirk et al 1985:1300ff; Biber et al 1999: 638ff). Henceforth, a new “fragment” category will be used to comprise appositions, independent prepositional phrases and short answers. An example of a fragment is given in (7:73).

(7:73) Which of the following office products is ergonomically correct? […]
Answer: all of the above – if you believe what the manufacturers say.
(NYT95)

7.5.1 NPs with common nouns
The first table (7.5) shows in which different syntactic functions NPs with all/whole and a singular count noun occurred in the material.

| Table 7.5. Syntactic functions of NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN |
|---------------------------------|---------------------------------|---------------------------------|
| NYT95                          | IND95                          |
| all                            | all                            | whole                          |
| Subject                        | 10                             | 18                             | 45                             | 30                             | 15                             | 22                             | 36                             | 22                             |
| Object                         | 17                             | 39                             | 21                             | 30                             | 22                             | 49                             | 21                             | 34                             |
| Predicative                    | 2                              | 0                              | 3                              | 0                              | 0                              | 2                              | 0                              | 1                              |
| Prep compl.                    | 16                             | 30                             | 31                             | 40                             | 18                             | 14                             | 40                             | 43                             |
| NP determ.                     | 0                              | 0                              | 0                              | 0                              | 0                              | 0                              | 1                              | 0                              |
| Adverbial                      | 54                             | 13                             | 0                              | 0                              | 40                             | 10                             | 0                              | 0                              |
| Fragment                       | 1                              | 0                              | 0                              | 0                              | 5                              | 2                              | 2                              | 0                              |
| Total                          | 100                            | 100                            | 100                            | 100                            | 100                            | 100                            | 100                            | 100                            |
| Total pop.                     | 458                            | 152                            | 3081                           | 14                             | 403                            | 49                             | 3510                           | 210                            |

There was a clear correlation between the all variant and the adverbial function, as in (7:74).

(7:74) He has voted Tory all his life but thinks he will support Tony Blair’s New Labour next time. (IND95)

The great majority of these tokens included the noun life, as in (7:74), whereas the rest of the NPs included a temporal noun and a demonstrative determiner, as in (7:75).

(7:75) All this week the Daily Poem will feature the theme of insects. (IND95)

The other variants (all of, whole and the whole of) were never or seldom used as adverbials. Instead, they occurred almost exclusively in the subject, object and prepositional complement functions, while predicatives and fragments were rare (and so they were in the other variables). There was a correlation (i) between the

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143 The order of categories is the same as in Huddleston & Pullum’s (1985:327) presentation.
whole and the subject category, as in (7:76), and (ii) between all of and the object function, as in (7:77).

(7:76) The whole sales organization picks very carefully what we choose to make. (NYT95)

(7:77) The Rams are getting all the revenue, and taxpayers are picking up all of the cost. (NYT95)

To conclude, in this variable, the variation (especially that between all and the other variants) can to a fairly great extent be explained by the syntactic function of the noun phrase.

Moving to all/whole+ MASS NOUN, the picture is quite complicated, because of the many categories and several correlations, as illustrated in Table 7.6.

Table 7.6. Syntactic function of NPs with all/whole, DETERMINER and MASS NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
<td>whole</td>
<td>all</td>
</tr>
<tr>
<td>Subject</td>
<td>20</td>
<td>30</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Object</td>
<td>26</td>
<td>28</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>Predicative</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>44</td>
<td>34</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>Adverbial</td>
<td>8</td>
<td>2</td>
<td>69</td>
<td>13</td>
</tr>
<tr>
<td>Fragment</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total population</td>
<td>5856</td>
<td>515</td>
<td>73</td>
<td>5242</td>
</tr>
</tbody>
</table>

The predominant phrase in the whole variant, the whole time, is mostly used as an adverbial, and there was thus a strong positive correlation between whole and this category, as in (7:78).

(7:78) It took 10 years and an Israeli Supreme Court order lifting the veils of secrecy for the public to learn that Professor Klingberg had been in Ashkelon Prison the whole time as a convicted Soviet spy. (NYT95)

The other variants, all and all of, were not very frequent in the adverbial function, but were mainly used in the subject, object and prepositional complement functions. All of correlated with the subject function, as in (7:79).

(7:79) All of this food is treated in essentially the same way. (IND95)

There was further a positive correlation between both the all and the all of variants and the object function, as in (7:80) and (7:81).

(7:80) The 61-year-old manager knows all the jargon and uses it. (NYT95)
We do all of the finish work by hand. (NYT95)

Finally, the all variant correlated with the prepositional complement function, as in (7:82)

After all the magnificence, it was interesting to discover what the children had absorbed. (IND95)

As for all + PLURAL NOUN, the correlation pattern was a little less complex than in the variables accounted for above (see Table 7.7).

Table 7.7. Syntactic functions of NPs with all, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
</tr>
<tr>
<td>Subject</td>
<td>28</td>
<td>43</td>
</tr>
<tr>
<td>Object</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Predicative</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>32</td>
<td>22</td>
</tr>
<tr>
<td>Adverbal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fragment</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total population</td>
<td>12732</td>
<td>2254</td>
</tr>
</tbody>
</table>

Just as in NPs with mass nouns, there was a positive correlation between all of and the subject category, as in (7:83). A positive correlation was also found between the prepositional complement category and all, as in (7:84) (see Table 7.7).

Almost all of the main courses come with heaping side dishes like earthy rice and red beans […] (NYT95)

This monster, compared with all the other quarks, is like a big cowbird’s egg in a nest of little sparrow eggs. (NYT95)

Now, could the correlation pattern (all – prepositional complement function and all of – subject function) observed in both NPs with mass noun and NPs with plural nouns be explained? There are at least two possible explanations where this factor is related to other linguistic factors. One explanation of all being fa-voured (as opposed to all of) in the prepositional complement category is that in about one third of the tokens in the variable with plural nouns the preposition preceding the quantified noun phrase is of, as in (7:85).

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
</tr>
<tr>
<td>Subject</td>
<td>28</td>
<td>43</td>
</tr>
<tr>
<td>Object</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Predicative</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>32</td>
<td>22</td>
</tr>
<tr>
<td>Adverbal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fragment</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total population</td>
<td>12732</td>
<td>2254</td>
</tr>
</tbody>
</table>

There were not so many instances of a preceding of among the mass nouns in prepositional complement function: only 12 out of 83.

The Oxford Advanced Learner’s Dictionary (2000) brings up Of all the… as an informal phrase expressing anger, but there does not seem to be any such negatively evaluative connotation in the tokens occurring in the present material.
Of all the ‘high islands’ of Polynesia, Rarotonga is the most gentle and serene, and also the least well-known. (IND95)

The presence of an adjacent of may (see Section 7.4.2) affect the choice between a quantifier with of and one without of in the direction of the latter. Another, perhaps even more plausible possibility, which applies to both NPs with plural and mass nouns, is that the correlation can be explained in terms of totality vs. large-quantity meaning (see Sections 3.3.3.2 and 7.4.3). When analysed in more detail, it emerged that the great majority of the tokens of NPs with of-less all used as prepositional complements seem to have large-quantity meaning, as in (7:86) and (7:87).

But the chance to enjoy a pint at home without all the hassle of actually having to go out and buy it is not a new idea. (IND95)

That means that for all the turnovers by the defence, the offense is negating them almost one for one. (NYT95)

One fact strengthening the analysis is that none of these tokens had a focus marker. It could also be the case that the correlation between the all of form and subject function is related to the same meaning distinction, since it seems that a large number of the tokens occurring in the subject function had totality meaning, as in (7:88) and (7:89). The analysis is strengthened by the fact that there were fairly many cases of focus markers (underlined) being used in NPs with subject function.

But not all of the evidence pointed in the same direction. (NYT95)

Virtually all of the old rocks come from lakes, caves or riverbeds, […] (IND95)

There was no statistically significant correlation in the half + PLURAL NOUN variable. In the both + PLURAL NOUN variable there was a statistically significant correlation (i) between both and the subject function and (ii) between both the/both of the and the object function in the British corpus. There was, however, no such correlation in the American material.

### 7.5.2 NPs with demonstrative pronouns

Table 7.8 shows the five syntactic functions which NPs with demonstrative pronouns assumed in the corpus samples.
Table 7.8. Syntactic function of NPs with all and DEMONSTRATIVE PRONOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
</tr>
<tr>
<td>Subject</td>
<td>39</td>
<td>54</td>
</tr>
<tr>
<td>Object</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Predicative</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>Fragment</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>1678</td>
<td>478</td>
</tr>
</tbody>
</table>

The correlation pattern found with all/whole + MASS NOUN and all + PLURAL NOUN recurs in this variable. There was thus a positive correlation in both corpora (i) between the all of variant and the subject function, as in (7:90), and (ii) between the all variant and the prepositional complement function, as in (7:91). The latter was only significant at the <0.05 level.

(7:90)  So all of these were a success. (IND95)

(7:91)  On top of all that, the heat wave hit. (NYT95)

Probably, the same explanation (totality vs. large-quantity meaning) could be applied here as well. Furthermore, as regards prepositional complements, the all of variant is perhaps avoided when the preposition preceding the quantified noun phrase is of. In about half of the cases of the prepositional complement category, of was the preceding preposition. Another finding was that the fragment category, although rare in this variable as well, contained more tokens (in both variants) than in the other variables. Here are two examples:

(7:92)  It is a relief to turn off the video-machine, to order room service at the Hotel St George, […], all this during Ramadan. (IND95)

(7:93)  Something is touched or awakened or threatened – all of that – by its very intensity. (NYT95)

7.5.3  NPs with personal pronouns

Quantified NPs with personal pronouns were only used in those three different syntactic functions which were the most frequent ones in the majority of the other variables as well: i.e. subject, object and prepositional complement functions (see Table 7.9).
Table 7.9. Syntactic function of NPs with *all* and PERSONAL PRONOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>we all</em></td>
<td><em>all of us</em></td>
<td><em>we all</em></td>
<td><em>all of us</em></td>
</tr>
<tr>
<td>Subject</td>
<td>74</td>
<td>53</td>
<td>72</td>
<td>38</td>
</tr>
<tr>
<td>Object</td>
<td>21</td>
<td>22</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>5</td>
<td>25</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>4078</td>
<td>863</td>
<td>5022</td>
<td>520</td>
</tr>
</tbody>
</table>

There was a positive correlation (i) between the *we/us (...) all* variant and the subject function, as in (7:94), and (ii) between the *all of* variant and the prepositional complement function, as in (7:95).

(7:94) *We all* know Mike Fratello is a good coach, making the best of a decimated squad. (NYT95)

(7:95) Death is eventually, if partially, outfaced in all of them save for that involving the young boys where Macdonald does not manage to avoid a certain sentimentality. (IND95)

The correlation between the subject category and the *we...all* variant can perhaps be explained by the *all of* variant including the object form of the personal pronoun (*us* and *them*). Some people might be disinclined to use this variant in the subject function and instead prefer the *we...all* variant. The correlation between the prepositional complement category and the *all of* variant is somewhat more surprising: it is contrary to the results of three other variables (*all* + MASS NOUN, *all* + PLURAL NOUN, *all* + DEMONSTRATIVE PRONOUNS), where the prepositional complement category correlated with the *of*-less variant. However, in those other variables, the preposition preceding the NP was in many cases *of* (which probably led some speakers to avoid a quantifier variant with *of*). In contrast, in the group with personal pronouns, *of* was quite infrequent as the preposition introducing the prepositional phrase.

Another thing worth mentioning is that there were a fairly large number of instances of sentence fragments, such as appositions and short answers, in the corpus material. This is a case of a knock-out effect, since the *we...all* variant is never used in these fragments. Accordingly all the tokens of the *all of* type, as in (7:96), were excluded from the study (see Appendix B).

(7:96) All New York vitamin stores have permanent discounts of around 20 per cent – *all of them*. (IND95) (* ... of around 20 per cent – *they all*)

### 7.5.4 NPs with *half*, the indefinite article and a singular noun or numeral

This variable is the only one which appears in all the different syntactic functions: subject, object, predicative, prepositional complement, modifier in an ad-
jective or adverb phrase, modifier in a prepositional phrase, NP determiner and apposition (which is part of the fragment category). The term “NP determiner” calls for some extra clarification in this variable. It was used for the three different cases exemplified in (7:97) to (7:99), where the quantified NP determines the head of the matrix NP (indicated by square brackets).

(7:97) He sprayed at least [half a dozen shots] at two electrical workers standing on the sidewalk […] (NYT95)

(7:98) The Years of Challenge (1897-1904) is the fruit of [half a century’s fascination] with the revolutionary Austrian. (IND95)

(7:99) Its enterprising policy has enabled [half a dozen of its tournament winners] to make the trip to Vegas this year. (IND95)

A possible alternative syntactic analysis of half a dozen in (7:99) is as the head of the matrix NP with of its tournament winners functioning as a postmodifying prepositional phrase. An argument for such an analysis is that half a dozen can stand on its own: …has enabled half a dozen to make the trip … This analysis was discarded, however, since of here is clearly partitive rather than having a conventional prepositional function (cf. Sections 3.3.4.1 and 7.3.4).

Three of the categories in the syntactic-function factor were unique to this variable in the sample material: the adjective phrase modifier, as in (7:100), the adverb phrase modifier, as in (7:101), and the prepositional phrase modifier, as in (7:102).

(7:100) […] a reasonable steak, to be properly cooked, should be at least a half-inch thick and therefore weigh at least 6oz […] (IND95)

(7:101) That was nearly a half-century ago. (NYT95)

(7:102) Half a century after WWII, Japan’s Parliament is considering whether to apologize for killing millions of people during the war. (NYT95)

As for the results, there were few positive correlations that were consistent across the two corpora (see Table 7.10). The NPs functioned most frequently as prepositional complements and NP determiners.

---

146 The last two of these, adverb phrase modifier and prepositional phrase modifier, both occurred with the phrase all the way in the all/whole + SINGULAR COUNT NOUN variable. These tokens were, as we have seen, not included in the samples for the analysis of linguistic factors.
Table 7.10. Syntactic function of NPs with half, the indefinite article and singular noun or numeral

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>half a/an</td>
<td>a half</td>
</tr>
<tr>
<td>Subject</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Object</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Predicative</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>29</td>
<td>13</td>
</tr>
<tr>
<td>NP determiner</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Adverbial</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>AdjP/AdvP modifier</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>PP modifier</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Fragment</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>1841</td>
<td>1254</td>
</tr>
</tbody>
</table>

There was one correlation between the half a/an variant and the prepositional complement category, as in (7:103).

(7:103) Garnish each with half a lobster tail and 1 claw and serve immediately. (NYT95)

In the British material, there was a correlation between a half and the object category. The main reason for this correlation was the great frequency of a half century used as a cricket term, as in (7:104), in combination with verbs such as complete, make, reach and score.

(7:104) Lest we get too carried away, Gough yesterday became the first Englishman to score a half century […] since Chris Lewis against the West Indies at Edgbaston in 1991. (IND95).

In the American material, there was a positive correlation between a half and the noun phrase determiner category, as in (7:105). With all the tokens of a half century excluded, this correlation was confirmed in the British material.

(7:105) A half dozen sites were studied with such methods in the 1970’s and 1980’s, with tantalizing results. (NYT95)

It is possible that the correlation (i) between half a/an and the prepositional complement and (ii) between a half and the NP determiner function could be related to the “part-whole” vs. “established-unit” distinction discussed in Sections 7.3.6 and 7.4.3.

147 The figures in brackets indicate number of tokens when a half century used as a cricket term was excluded (see Section 7.3.6).
7.5.5 NPs with geographical names

Table 7.11 illustrates the syntactic functions in which quantified NPs with a geographical name were used in the corpus samples.

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
</tr>
<tr>
<td>Subject</td>
<td>38</td>
<td>23</td>
</tr>
<tr>
<td>Object</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>Predicative</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Prepositional comp.</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>Fragment</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

| Total population    | 55    | 258   | 21           | 45  | 59     | 148          |

There was a positive correlation (i) between the simple all variant and the subject function, as in (7:106), and (ii) between all of and the whole of and the object category, as in (7:107) and (7:108).

(7:106) And the broader question that all America will be pondering is whether the march will serve merely as a springboard for Mr Farrakhan’s political career, […]. (IND95)

(7:107) We understand that they probably intend to remain for a few weeks, but they must eventually leave all of northern Iraq. (NYT95)

(7:108) Vladimir Zhirinovsky, himself born in Alma-Ata, wants the whole of Kazakhstan back. (IND95)

As described in Section 3.3.4.4 and evidenced in Section 7.3.4.3, the simple all variant is often preferred in cases of (inferred) animacy, where the speaker refers to the inhabitants of a country, town etc. rather than to the country, town etc. as a geographically or politically defined area. This fact may explain the correlation regarding the present linguistic factor, since animate NP heads tend to be more active than inanimate ones. They, therefore, more often function as the subject of clauses (or Agents in a two-participant clause, as, for instance, Hopper & Thompson (1980:252) put it), whereas inanimate NP heads more typically function as objects. Also supporting the idea that simple all is more “personified” than the whole of is the fact that when the members of the object category are sub-classified into direct and indirect objects, indirect objects proved only to occur with the simple all variant. Again, there seems to be a case of two interrelated factors.
7.5.6 Subgroups

7.5.6.1 NPs with all/whole and temporal nouns
The last variable but one – NPs with temporal nouns – is the one where the most conspicuous correlation between variant and category was found. There proved to be a clear difference in syntactic function between variants with all and variants with whole. This piece of information is notably absent in the school and reference grammars consulted. Table 7.12 shows this difference.

Table 7.12. Syntactic functions of NPs with all/whole, /THE DEFINITE ARTICLE/ and TEMPORAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>the whole</td>
<td>all</td>
<td>the whole</td>
</tr>
<tr>
<td>Subject</td>
<td>0</td>
<td>10</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Object</td>
<td>2</td>
<td>16</td>
<td>4</td>
<td>35</td>
</tr>
<tr>
<td>Prepositional complement</td>
<td>0</td>
<td>33</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Adverbial</td>
<td>98</td>
<td>41</td>
<td>96</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td><strong>1812</strong></td>
<td><strong>103</strong></td>
<td><strong>1276</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>

NPs with simple all were almost exclusively used in adverbial function (98 and 96 tokens respectively), as in (7:109):

(7:109) Monica seemed relaxed all week but it wasn’t like before. (IND95)

Note that in the British material, the correlation was not far from absolute: 96 tokens of all in adverbial function and 4 tokens in other functions vs. 11 tokens of whole in adverbial function and 89 tokens in other functions. Overall, there were only six examples in the 200-token sample where the simple all variant was used in another function, viz. as a direct object combined with spend or take, as in (7:110). In these cases, the whole spend all day is very similar in meaning to a phrase like be somewhere/do something all day, where all day has adverbial function.

(7:110) It’s like living next door to a gun nut who spends all day and half the night shooting at beer bottles. (NYT95)

The other frequent variant used in NPs with temporal nouns was the whole. Simple all was mainly used as an adverbial, while the whole correlated with three other categories: subject, as in (7:111), object as in (7:112), and prepositional complement, as in (7:113). In the American material, however, the adverbial category predominated also with the whole, as in (7:114).

(7:111) It was a fantastic feeling but the whole week was unbelievable, something I’ll never forget. (IND95)
(7:112) Couples in new relationships tend to streamline their plans by spending the whole weekend in bed. (NYT95)

(7:113) But the best bargains of the whole year are just before Christmas, […]. (IND95)

(7:114) It stayed open the whole night. (NYT95)

The correlation with syntactic function may be related to the discussion in 7.3.2, where it was suggested that whole can be used for specificity and individuation of singular count noun referents, while all sometimes has a less specifying (more generic) function. It is not implausible that this applies to NPs with temporal nouns as well. Therefore, it could be part of the explanation as to why whole is more often used in subject, object and prepositional function, whilst all is more often used in adverbial function.

Quirk et al (1985:259) write that the simple all form is the only possible variant in negative expressions such as I haven’t seen him all day. They fail, however, to mention that the crucial factor here is the adverbial function of the NP rather than the negation, since the whole indeed occurs in negated clauses, as in (7:115).

(7:115) The whole weekend is not going to be good. (NYT95)

7.2.6.2 NPs with both and nouns for body parts or kinship

Finally, we will take a look at the syntactic functions of NPs with nouns for body parts or kinship, as illustrated in Table 7.13.

Table 7.13. Syntactic functions of NPs with both, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS OR KINSHIP

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>both</td>
<td>both my</td>
</tr>
<tr>
<td>subject</td>
<td>24</td>
<td>58</td>
</tr>
<tr>
<td>object</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>prep. comp.</td>
<td>53</td>
<td>21</td>
</tr>
<tr>
<td>fragment</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total pop.</td>
<td>322</td>
<td>61</td>
</tr>
</tbody>
</table>

There were no correlations in the variable with both in combination with a semantically non-specified noun, as accounted for in Section 7.5.1. In this subgroup, however, there was a correlation between the simple both form and the prepositional complement function, as in (7:116). The two variants including a possessive determiner (both /of/ my) correlated with the subject function, as in (7:117) and (7:118).
(7:116) Back in the West End nightclub, a twentysomething boy slinks by in an Adidas jacket zipped to his chin, with a backpack on both shoulders. (IND95)

(7:117) Both my parents were very brave. (IND95)

(7:118) Both of her lungs had collapsed, and she also had liver damage. (NYT95)

As we saw in Section 7.3.4.2, both correlated with inanimate nouns (i.e. body parts). The majority of the prepositional complements are of this type, such as in both hands, with both feet etc., which tend to become almost like fixed frames with open prepositional and nominal slots. Virtually all instances of the both (of) + possessive determiner variant in prepositional complement function include a noun for kinship, as in (7:119), rather than for body parts, as in (7:120).

(7:119) […] Lot, the Sodomite made good, was later seduced by both his daughters in turn (IND95)

(7:120) Dare had arthroscopic surgery on both of his knees […]. (NYT95)

7.6 Summary

This chapter explored linguistic factors which influence the choice of variant in quantified NPs with all/whole, both and half. The underlying assumption was that there are such correlations, and a number of different hypotheses were tested on the corpus material. In some cases, I had a pre-existing hypothesis about how a particular factor could correlate with a particular variant. These hypotheses were based upon claims in the literature or upon my own intuition, and this was tested on the corpus material. In other cases, a linguistic factor was investigated without there being a pre-existing hypothesis of correlation.

We will not go into all of the analyses again, but merely point to a few interesting results. Firstly, my hypothesis about all of being particularly frequent when the quantifier has totality meaning was corroborated indirectly by the correlation between this variant and the presence of a focus marker, such as almost and many. Focus markers also played an important role in variables with half. Secondly, there was a very strong correlation in NPs with all/whole and a temporal noun between the simple all variant and the adverbial function. Animacy is a fascinating topic, and, thirdly, we saw that the hypothesis about NPs with geographical nouns was corroborated: simple all was particularly frequent in cases of (inferred) animate reference, whereas the whole of correlated with inanimate reference. A final result worth mentioning is the strong correlation in the both + plural noun variable concerning the presence of a modifier. Both was particularly frequent when the NP was unmodified, and both the and both of the correlated with modification. One important general conclusion to be drawn, besides those for the particular variables, is that none of the linguistic factors
studied in this chapter can explain all of the variation. There were also a few cases of interrelated factors. There may, of course, be others, not discovered in the present study.

In the final chapter I will summarise the results from another perspective. Here, I go through the different variables in turn to see what particular factors were relevant in each case. My aim is to provide a more coherent and holistic picture of the four quantifiers and the NP types in which they occur.
8. Conclusion

The principal aim of this study was to investigate variation in noun phrases including all/whole, both and half. More specific aims concerned overall frequency distribution of variants, non-linguistic factors (frequency distribution across region and medium) and finally linguistic factors.

The first section (8.1) of this chapter summarises and visualises the results presented in Chapters 5 to 7. In 8.2 I make some general observations regarding the study and its relation to this particular research area, providing some examples of how the results could be used in reference grammars. Lastly, I conclude by pointing at a few possible areas of future research.

8.1 Summary and visualisation of results

In Chapters 6 and 7 we investigated a number of factors to find out how they correlated with different variants. The findings were presented for each of the factors in turn. We shall here take the other perspective and look at each of the variables and visualise them in the form of figures including all statistically significant correlations between variants and factors.

The type of figure varies depending on how many variants occurred in each particular variable. Thus, a variable with two variants will be diagrammatically illustrated by an arrow, a variable with three variants by a triangle (exemplified in Figure 8.1) and a variable with four variants (all/whole + SINGULAR COUNT NOUN) in the form of a square. The most frequent variant overall is indicated by bold type and the relative frequencies between the variants (presented in Chapter 5) are indicated by percentages (from the total material) given in brackets. For each variant, an example sentence is provided, illustrating several factors.

It should be noted that only statistically significant correlations are included in the figures. All of them are significant at the <0.01 level, except those in brackets, which are significant at the <0.05 level only. It is also very important to remember that the presentation, in the form of figures and example sentences, is probabilistic rather than absolute. That is, it should not be read as if, for instance, with certain factors present, the same variant is always used. The correct interpretation is instead that “in the presence of factor X and Y, this particular variant is more likely than otherwise”.

The closer a particular factor category is located to a certain variant, the stronger the correlation between them (see Section 4.3.4 for a description of how the relative strength of correlations has been calculated). Observe that the location of the correlations in the figure only gives their relative positions in terms of
strength. Put in other words, just because the distance between one factor and a certain variant is twice as long as that of another factor, the correlation with the latter is not twice as strong as with the former. Exact phi coefficient figures for the factors (forming the basis of the ranking of correlations and obtained via the chi square test) are given in Appendix E. Knock-out factors are indicated by square brackets outside the figure, but close to the variant to which they are related. These will not be commented on here but are described in Appendix B.

Some correlations are characterised by a plus/minus relationship, as in the presence or absence of a modifier. In the figures, such correlations are presented as “modifier”/“no modifier” etc. In other cases, the particular category correlating with the variant is given, such as “animate reference/inanimate reference” or “subject function”/”object function”/”adverbial function”.

Here is a constructed example of an illustrating figure (Figure 8.1).

![Diagram](image_url)

**Figure 8.1.** Figure of syntactic variation in a variable with three variants and three factors involved in correlations (constructed example)

The figure shows that this variable comprises three variants (X, Y and Z), of which Variant X was the most frequent one overall. Three factors (“the presence of a modifier”, “animacy” and “region”) were involved in statistically significant correlations (mainly at the <0.01 level) with particular variants. The “modifier” category exhibited a positive correlation with Variant X (as did the “no modifier” category with Variants Y and Z). “Animate reference” correlated positively with Variants X and Y (and “inanimate reference” with Variant Z). As regards the regional factor, one of its categories (BrE) correlated positively with Variant X, whereas another category (AmE) correlated positively with Variant Z (only at the <0.05 level, as indicated by the brackets). Finally, “the presence (or absence) of a modifier” exhibited the strongest correlation with all three variants, and is thus located closest to the variants, while the weakest one concerned “region”. How much stronger the “modifier” correlation was is not shown in the figure.
Illustrations of the same kind will be presented for each of the variables in an attempt at visualising the complexity of the syntactic variation in general as well as clarifying the particular patterns relevant for each variable.

### 8.1.1 NPs with common nouns

#### 8.1.1.1 NPs with *all/whole* and common nouns

Figure 8.2 illustrates the variation pattern in the *all/whole* + SINGULAR COUNT NOUN variable.

<table>
<thead>
<tr>
<th><em>all</em> (13%)</th>
<th><em>all of</em> (2%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>adverbial function</td>
<td>a focus marker</td>
</tr>
<tr>
<td>poss./dem. det.</td>
<td>a modifier</td>
</tr>
<tr>
<td>no focus marker</td>
<td>animate ref.</td>
</tr>
<tr>
<td>divisible noun</td>
<td>object function</td>
</tr>
<tr>
<td>no modifier</td>
<td></td>
</tr>
<tr>
<td>animate ref.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(an adjacent of)</th>
<th>(no adjacent of)</th>
</tr>
</thead>
<tbody>
<tr>
<td>inanimate ref.</td>
<td>inanimate ref.</td>
</tr>
<tr>
<td>subject function</td>
<td>a modifier</td>
</tr>
<tr>
<td>no modifier</td>
<td>no focus marker</td>
</tr>
<tr>
<td>indivisible noun</td>
<td></td>
</tr>
<tr>
<td>no focus marker</td>
<td></td>
</tr>
<tr>
<td>the definite article</td>
<td></td>
</tr>
</tbody>
</table>

*whole* (82%)  
*the whole of* (3%)

*poss./dem. det.* = possessive/demonstrative determiner

**Figure 8.2. Significant correlations in NPs with *all/whole*, DETERMINER and singular COUNT NOUN**

The following four variants occurred:

(8:1) He has lived *all his life* openly gay in Dinnington, […] (NYT95)

(8:2) […] he was planning to lay off virtually *all of his remaining support staff,* (NYT95)

(8:3) ‘*The whole picture* is so drastic,’ said Rosalie Cream, […](NYT95)

---

148 With *all the way* excluded: *all* 4%, *all of* 2%, *whole* 91%, *the whole of* 3%.
In this variable *whole* predominated clearly. In the *all* variant, the strongest correlation was with the adverbial function and possessive/demonstrative determiner, because of the frequent occurrence of phrases like *all my life* and *all this week*. Although phrases with inanimate nouns like *life* and *year* dominated, there were also quite a few instances of collective nouns, which explains why *all* correlated with animate reference. *All of* correlated most strongly with the presence of a focus marker and a modifier. Meanwhile, the *whole* variant showed its strongest correlation with the definite article and the absence of a focus marker. The variant including *the whole of*, finally, correlated most strongly with the absence of a focus marker and the presence of a modifier. Note that the presence/absence of an adjacent of correlation was only significant at the <0.05 level.

The *all/whole* + MASS NOUN variable is visualised in Figure 8.3.

---

**Figure 8.3. Significant correlations in NPs with all/whole, DETERMINER and MASS NOUN**

There are three variants in this variable:

(8:5) I do think those people who marry into my family find it increasingly difficult to do so because of *all the added pressure* […] (IND95)
Almost all of the really cool software arriving in this office in the last six months […] came on laser-pitted CD-ROM disks. (NYT95)

He had breathed unaided the whole time, […] (IND95)

Here we again see one variant (all in this case) predominating strongly. All (which was more frequent in the British and Australian material) correlated most strongly with the absence of a focus marker and the prepositional complement function. In contrast, the strongest correlation in the all of variant (which was more frequent in the American corpus) was the presence of a focus marker and a modifier. Whole correlated most strongly with the adverbial function (because of the many instances of the whole time) and with the absence of a focus marker.

The correlation pattern for all + PLURAL NOUN is presented in Figure 8.3. 

**Figure 8.4. Significant correlations in NPs with all, DETERMINER and PLURAL NOUN**

This variable comprises only two variants, all and all of, the former being more than ten times more frequent than the latter:

Little did I know that I would live in Malacanang Palace for 20 years and go to all the major corridors of power in the world, […] (IND95)
We were a commuter school, and almost all of our kids were local.
(NYT95)

There were slightly fewer correlations in this variable. In NPs with all, the strongest correlations concerned the presence of an adjacent of and the prepositional complement function. All of correlated most strongly with the absence of an adjacent of and the subject function. It was also more frequent in the American material.

8.1.1.2 NPs with both and common nouns

Figure 8.5 shows the correlations occurring in the both + PLURAL NOUN variable.

![Figure 8.5: Significant correlations in NPs with both, /THE DEFINITE ARTICLE/ and PLURAL NOUN](image)

Examples (8:10) to (8:11) illustrate the three variants.

(8:10) Draws seem possible in both matches, […] (IND95)

(8:11) Other Conservative MPs pointed out that both the cancelled meetings would have covered the same ground […] (IND95)

(8:12) The authorities said Mr. Green knew both of the slain postal workers, (NYT95)

The both variable was perhaps the most interesting one with respect to overall distribution. In grammar books the three variants (both – both the – both of the) are generally presented as if they were equally common, but the corpus study showed that simple both is extremely predominant (97% overall). Simple both (most frequent in AmE) correlated with the absence of a modifier and inanimate
reference, while *both the* (most frequent in BrE) and *both of the* correlated with the presence of a modifier and with animate reference.

### 8.1.1.3 NPs with *half* and common nouns

The correlation pattern of *half* + PLURAL NOUN is presented in Figure 8.6.

**Figure 8.6. Significant correlations in NPs with *half*, DETERMINER and PLURAL NOUN**

The two variants are illustrated in (8:13) to (8:14).

(8:13) In the club itself, *half the members* are women. (SMH95)

(8:14) He figures the 30 Dow stocks operate in some 70 industries and get about *half of their sales* from abroad […]. (NYT95)

*Half* without *of* was the predominant variant, and *half of* was more frequent in AmE than in BrE and AusE. In addition to the correlations with regional varieties, *half* correlated with the absence of a focus marker and also with the presence of a possessive determiner, the definite article or a genitive. *Half of* correlated with the presence of a focus marker and a demonstrative determiner.
8.1.2 NPs with all and demonstrative pronouns

Figure 8.7 shows the pattern for all + DEMONSTRATIVE PRONOUN.

*all this/that/these/those* (89%)

an adjacent *of*

BrE

prep. comp. function

AmE

no adjacent *of*

subject function

*all of this/that/these/those* (11%)

prep. comp. = prepositional complement

**Figure 8.7. Significant correlations in NPs with all and demonstrative pronoun**

These are the two variants:

(8:15) But a question arises out of all this: […] (IND95)

(8:16) *All of this* is lucidly and soberly recounted by Mr. Stille, […] (NYT95)

In this variable, the variant without *of* predominated again. As regards the all *this* etc. variant, only two correlations were statistically significant at the <0.01 level: the presence of an adjacent *of* and British English. The correlation with the prepositional complement function was only significant at the 0.05 level. *All of this* etc. (most frequent in AmE) correlated most strongly with the subject function and the absence of an adjacent *of*. Also remember that *of* variants were more frequent when the head of the noun phrase was a demonstrative pronoun, as in this variable, rather than a noun, as in *all (of) the book/children.*
8.1.3 NPs with all and personal pronouns

The correlation pattern for all + PERSONAL PRONOUN is illustrated in Figure 8.8.

we/us, they/Them all (88%)

subject function
no focus marker
BrE

AmE
a focus marker
prep. comp. function

all of us/them (12%)

prep. comp. = prepositional complement

Figure 8.8. Significant correlations in NPs with all and PERSONAL PRONOUN

In this variable, there are also two variants, as illustrated by (8:17) and (8:18).

(8:17) Why are we all so depressed? (IND95)

(8:18) [...] foreign investors are now flocking back to all of them. (NYT95)

The we/us (...) all variant predominated strongly over the variant with all of followed by a personal pronoun. The former (most frequent in BrE) correlated significantly with the subject function and the absence of a focus marker, whereas the latter (most frequent in AmE) correlated with the prepositional complement function and the presence of a focus marker.
8.1.4 NPs with *half*, the indefinite article and a singular noun or numeral

The *half* + THE INDEFINITE ARTICLE + SINGULAR NOUN/NUMERAL variable and its correlations are visualised in Figure 8.9.

**Figure 8.9. Significant correlations in NPs with *half*, THE INDEFINITE ARTICLE and SINGULAR NOUN or NUMERAL**

The following variants occur:

(8:19) There was an Emmy award for a television special and gold-album recordings, each selling more than *half a million*. (IND95)

(8:20) Onions were chopped and thrown into a pot to sweat in olive oil; [...] a *half-cup of sugar* and a can of tomato paste followed. (NYT95)

The *half a/an* variant predominated overall. In this case, however, there was strong regional variation; in American English, the *a half* variant was much more frequent than in British and Australian English. The strongest correlations in the *half a/an* variant was (apart from BrE) the presence of a focus marker and prepositional complement function. The correlation with a numeral was only sig-
significant at the <0.05 level. The strongest correlations in the *a half* variant were (apart from AmE) the absence of a focus marker and NP determiner function. The correlation with partitive noun was only significant at the <0.05 level.

8.1.5 NPs with *all/whole* and geographical names

Figure 8.10 illustrates the variable comprising *all/whole + GEOGRAPHICAL NAME*.

![Diagram showing correlations between different variants of *all/whole* and their functions]

Three variants are used:

(8:21) […], not just Bill Clinton but *all America* is the loser. (IND95)

(8:22) The first covers *all of California*, […] (NYT95)

(8:23) St Edmundsbury and Ipswich, which covers almost *the whole of Suffolk*, is a relatively new diocese […] (IND95)

*All of* was the most frequent variant overall. This is another case of regional variation, however. Simple *all* correlated most strongly with animate reference and the subject function. *All of* correlated most strongly with American English and inanimate reference, whereas *the whole of* correlated most strongly with British English and inanimate reference. The correlation between *all of* and the absence of an adjacent *of* was only significant at the <0.05 level.

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150 It should be observed that in the case of syntactic function, the correlation was only significant when all tokens including the cricket term *a half-century* had been excluded from the data.
8.1.6 Subgroups

8.1.6.1 NPs with *all/whole* and temporal nouns

This is the correlation pattern for *all/whole* + TEMPORAL NOUN:

\[
\text{all (91%)}
\]

[knock-out: opening times in advertisements etc.]

adverbial function (natural time)

AmE

(BrE, Aus)

(subject function)

(object function)

prep. complement function

\[
\text{the whole (7%)}
\]

Figure 8.11. Significant correlations in NPs with *all/whole*, THE DEFINITE ARTICLE and TEMPORAL NOUN

There are two main variants\(^{151}\):

(8:24) Busloads have been arriving *all day*, […] (NYT95)

(8:25) The life of Catherine Cobb spanned nearly *the whole century* […] (IND95)

Again, we have a case of strong predominance for one variant: simple *all*. *The whole* was the second most frequent variant, while the others (*all the*, *all of the* and *the whole of the*) were very infrequent. Only the “syntactic function” factor correlated in a statistically significant way with the variants. Simple *all* (most frequent in AmE) showed a very strong correlation with the adverbial function (the strongest of all correlations in the study), whereas *the whole* (most frequent

\(^{151}\) Three more variants, *all the*, *all of the* and *the whole of the* occurred in the material (see Section 5.1.6.1), but since they were very infrequent they were not included in the analysis of linguistic factors. Hence the reason why the total percentage sum is only 98%.
in BrE and AusE) correlated with the prepositional complement, object and subject functions. The “time division” factor correlated at the <0.05 level only.

8.1.6.2 NPs with *both* and nouns for body parts or kinship

The final variable is *both* in combination with a noun referring to body parts or kinship, as illustrated in Figure 8.12.

![Diagram showing the distribution of NPs with *both* in relation to reference and function.](image)

*inan. ref. = inanimate reference, prep. comp. = prepositional complement function*

**Figure 8.12. Significant correlations in NPs with *both*, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS/KINSHIP**

The three variants occurring in this variable are illustrated in (8:26) to (8:28).

(8:26) Englewood Cliffs is very small and very well-off, with so few black residents they could be counted on the fingers of *both hands*. (SMH95)

(8:27) *Both my parents* went to Oxford University – they both read maths there […] (IND95)

(8:28) *Both of their children* were born after the divorce. (NYT95)

Simple *both* (particularly frequent in Australian English) correlated most strongly with inanimate reference and the prepositional complement function, while *both my* and *both of my* (most frequent in the British and American material respectively) correlated with animate reference and the subject function. The correlation concerning an adjacent *of* was only significant at the <0.05 level.
8.2 Concluding remarks

After going through the different variables, it has become clear that the picture of syntactic variation presented in grammar books is a very simplified one. Some of the variables exhibited more complex patterns, i.e. correlated positively with more factor categories than others. There may also be other factors that are equally or more important. We have looked at region and medium, and a number of linguistic factors. Other non-linguistic factors may be involved (e.g. age, educational background) and it is also possible that there are other syntactic and semantic/pragmatic ones that could be examined (e.g. type of verbs interacting with the quantified NPs). Furthermore, there could be lexical and textlinguistic factors influencing the choice of variant.

Besides covering a grammatical area that has been little analysed before in terms of variation, this investigation differs from many other studies of syntactic variation, because it focuses on a very small part of the language. I have accordingly been able to take a large number of factors into account, giving a complex picture of the various aspects that are at play in the choice of one variant over another. Many other works dealing with syntactic variation are either mainly theoretical, discussing, for instance, what should be considered the meaning constant in variation research, or case-studies of just one or a few factors. Studies which have endeavoured to take both linguistic and non-linguistic factors into account are particularly rare (for exceptions, see, for instance, Tottie 1991; Biber et al 1998; Levin 2001).

Another important aspect is that the analysis is based on a large authentic material in the form of computerised text corpora. Working with authentic texts is not always an easy and straightforward task, since real language seldom fits neatly into linguistic categories. This has been discussed in the method and material chapter and reflected in the large number of footnotes commenting on the results. Still, in my opinion, basing one’s claims on what real people have said and written gives more validity than relying on intuition only, especially when the researcher is not a native speaker of the language under investigation. The study has, among other things, pointed out differences between the words all, both and half, which are often treated in the grammatical literature as being very similar in form and function, perhaps owing to a shortage of empirical information on how the words are really used. Similarly, the study has provided descriptions of usage that are not brought up in the grammatical literature, by taking due consideration of (i) overall relative frequency of variants, (ii) differences according to region\textsuperscript{152} and (iii) various linguistic factors influencing the choice of variant. An additional contribution of the study has been to corroborate some previous statements in the literature. Besides all the specific new insights obtained about linguistic and non-linguistic factors, it was observed that

\textsuperscript{152} No clear differences between speech and writing consistent across British and American English were observed in the study. The reason is either that there are no such differences or that the written and spoken corpus materials were too similar, since newspapers contain a great deal of spoken language from interviews.
in most of the variables, one variant predominated greatly, sometimes almost to the exclusion of other variants. This fact contrasts with how syntactic variation with these NP types is usually presented in grammar books, i.e. as if different syntactic variants were equally frequent. In many areas, the results are too detailed or uncertain to be useful for pedagogical and reference grammars. In some cases, however, the application of the results would clearly improve grammar books. In a reference grammar, such information could, for instance, take the following shape:

- There are three variants including both and a plural noun: both books, both the/these/my books or both of the/these/my books. The first variant is far more frequent than the other two and is the variant that is generally used in cases where there are only two possible referents, such as both halves and both twins. The variants both the and both of the are often the preferred alternatives when the NP includes a modifier, as in both /of/ the accused men. Sometimes, especially in NPs with nouns designating body parts and kinship, a possessive determiner is a more natural alternative (both my parents, both my hands etc.) than the definite article.

- There are (mainly) two variants to express totality in a noun phrase including a temporal noun: all day and the whole day. All the day (esp. BrE), all of the day and the whole of the day also occur, but are quite unusual. All is almost exclusively used when the NP is used in adverbial function, as in I haven’t seen him all day (esp. when the clause is negated). In contrast, the whole is the preferred variant when the NP is used in another syntactic function, as in The whole weekend has been marvellous.

- In cases where we wish to use a personal pronoun together with all, there are two possibilities: we ... all, as in Why can’t we all go back to school? or all of us, as in Why can’t all of us go back to school? The former variant (sometimes referred to as “the floating quantifier”) is the more frequent one overall, and the latter is more frequent in American than in British English. The we/us (...) all variant is particularly frequent when the NP has subject function, as in the example above, while the all of us variant predominates in prepositional complement function, as in There’s a Jekyll and Hyde in all of us.

- When an NP includes a geographical name and a word for totality, there are three alternatives: all France, all of France and the whole of France. Remember that of has to be used in the third variant. All of is the most frequent variant in American English, whereas the whole of predominates in British English. Geographical names can denote two different things, a geographical/political area or the people inhabiting it. This distinction is often shown in the choice of quantifier, since the whole of is more frequent in the former function and simple all in the second, while all of is about equally frequent in the two functions. The area–people distinction is also reflected in simple all being more frequent in subject function (which is often used about people), while the whole of is more frequent in object function (which is often used for things).
• *Half a kilo* and *a half kilo* are used with the same sense by many people. The latter variant is a particularly frequent alternative in American English. Some people make a semantic distinction between the two, using *a half* as a more established unit, as in *a half-bottle*, and *half a/an* as an ordinary partial expression (comparable with *some* etc.). This difference is reflected in the fact that *a half* is the more frequent alternative when the NP is used as a determiner of the head of the NP, as in *a half dozen cows*. On the other hand, *half a/an* is particularly frequent when there is an approximator like *almost* or *nearly* in the noun phrase.

The distinction between totality and large-quantity meaning might also be given some treatment in reference grammars, pointing to *all of* mainly being used when the totality meaning (sometimes signalled by focus markers like *nearly* or *except one*) is involved.

In Section 2.1.2, we saw that the whole idea of grammatical synonymy has been questioned. My general conclusion with respect to syntactic variation is that there are indeed cases where two or more grammatical structures seem to compete with each other, even though a number of linguistic and non-linguistic factors (sometimes many, sometimes few) influence the variation to a greater or lesser extent. I thereby refute a very strict interpretation of the “two forms = two meanings” hypothesis. The conclusion is strengthened by the fact that virtually no absolute correlations occurred. In other words, it was not the case that with one factor category present, the same variant was always chosen. Also, the material comprised examples of very similar phrases, as in (8:29) to (8:31).

(8:29) *Both major parties* have been slow to adopt Asian candidates. (SMH95)

(8:30) We have become the target of *both the major parties*. (IND95)

(8:31) […] and the looming Federal election provides them with a unique opportunity to garner further concessions from *both of the major parties*. (SMH95)

In the examples, both the statistically significant correlations observed with this variable (animacy and the presence of a modifier) are out of play, since all three examples are of the same type (animate reference and no modifier). The NPs in the examples are different in syntactic function, but this factor did not show a significant correlation in the material. We must of course always be aware that there may be correlations that were not detected here. Also, Langacker’s ideas about dialectal conventionalisation of certain variants (Section 2.1.2) and Sapir’s comment that people do not uphold semantic distinctions (Section 3.3.4.1) are important to keep in mind.

I can envisage a number of possible studies following up the present one. The figures obtained here could, for instance, be used in more advanced factor analysis, (see Section 2.1.5). The area of totality vs. large-quantity meaning could be more closely examined, for instance, by means of elicitation tests with native speakers, or by looking more closely into the interplay with other factors. The
same goes for many other of the areas that have only been touched upon briefly, such as divisibility and animacy in quantified noun phrases.

As far as the four quantifiers are concerned, other aspects could be investigated as well. Quantifiers could, for instance, be explored from a contrastive point of view, using parallel corpora of English and Swedish or other languages. Another field would be to compare how the language of learner corpora differs from native speakers’ language in the use of quantified NPs. To conclude, syntactic variation is a very rich and interesting field, and there are many areas of syntactic variation where the method used for the present study could be applied.
Appendices

A Variables

Table A1. NPs with *all/whole, both and half, determiner and common noun

<table>
<thead>
<tr>
<th>Variables</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>all + DETERMINER + SINGULAR COUNT NOUN</td>
<td>all the book</td>
</tr>
<tr>
<td>all of + DETERMINER + SINGULAR COUNT NOUN</td>
<td>all of the book</td>
</tr>
<tr>
<td>DETERMINER + whole + SINGULAR COUNT NOUN</td>
<td>the whole book</td>
</tr>
<tr>
<td>the whole of the + SINGULAR COUNT NOUN</td>
<td>the whole of the book</td>
</tr>
<tr>
<td>all + DETERMINER + MASS NOUN</td>
<td>all the stuff</td>
</tr>
<tr>
<td>all of + DETERMINER + MASS NOUN</td>
<td>all of the stuff</td>
</tr>
<tr>
<td>DETERMINER + whole + MASS NOUN</td>
<td>the whole stuff</td>
</tr>
<tr>
<td>the whole of + DETERMINER + MASS NOUN</td>
<td>the whole of the stuff</td>
</tr>
<tr>
<td>all + DETERMINER + PLURAL NOUN</td>
<td>all the children</td>
</tr>
<tr>
<td>all of + DETERMINER + PLURAL NOUN</td>
<td>all of the children</td>
</tr>
<tr>
<td>both + PLURAL NOUN</td>
<td>both children</td>
</tr>
<tr>
<td>both the + PLURAL NOUN</td>
<td>both the children</td>
</tr>
<tr>
<td>both of the + DETERMINER + PLURAL NOUN</td>
<td>both of the children</td>
</tr>
<tr>
<td>half + DETERMINER + NOUN</td>
<td>half the book</td>
</tr>
<tr>
<td>half of + DETERMINER + NOUN</td>
<td>half of the book</td>
</tr>
</tbody>
</table>

153 The formulae also cover cases where one or more modifying adjective(s) precede(s) the noun. This is true of all the variables with common nouns.
<table>
<thead>
<tr>
<th>Table A2. NPs with <em>all/whole, both and half</em> and DEMONSTRATIVE PRONOUN</th>
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</thead>
<tbody>
<tr>
<td><em>all</em> + DEMONSTRATIVE PRONOUN</td>
</tr>
<tr>
<td><em>all of</em> + DEMONSTRATIVE PRONOUN</td>
</tr>
<tr>
<td><em>both</em> + DEMONSTRATIVE PRONOUN</td>
</tr>
<tr>
<td><em>both of</em> + DEMONSTRATIVE PRONOUN</td>
</tr>
<tr>
<td><em>half</em> + DEMONSTRATIVE PRONOUN</td>
</tr>
<tr>
<td><em>half of</em> + DEMONSTRATIVE PRONOUN</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Table A3. NPs with <em>all, both</em> and PERSONAL PRONOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all of</em> + PERSONAL PRONOUN</td>
</tr>
<tr>
<td>PERSONAL PRONOUN + <em>all</em></td>
</tr>
<tr>
<td><em>both of</em> + PERSONAL PRONOUN</td>
</tr>
<tr>
<td>PERSONAL PRONOUN + <em>both</em></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Table A4. NPs with <em>half</em>, THE INDEFINITE ARTICLE and SINGULAR NOUN OR NUMERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>half a/an</em> + SINGULAR NOUN or NUMERAL</td>
</tr>
<tr>
<td><em>a half</em> + SINGULAR NOUN or NUMERAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table A5. NPs with <em>all/whole</em> and GEOGRAPHICAL NAME</th>
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</thead>
<tbody>
<tr>
<td><em>all</em> + GEOGRAPHICAL NAME</td>
</tr>
<tr>
<td><em>all of</em> + GEOGRAPHICAL NAME</td>
</tr>
<tr>
<td><em>the whole of</em> + GEOGRAPHICAL NAME</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Table A6. NPs with <em>all/whole</em>, /THE DEFINITE ARTICLE/ and TEMPORAL NOUN</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + TEMPORAL NOUN</td>
</tr>
<tr>
<td><em>all the</em> + TEMPORAL NOUN</td>
</tr>
<tr>
<td><em>all of the</em> + TEMPORAL NOUN</td>
</tr>
<tr>
<td><em>the whole</em> + TEMPORAL NOUN</td>
</tr>
<tr>
<td><em>the whole of the</em> + TEMPORAL NOUN</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Table A7. NPs with *both, /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS OR KINSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>both</em> + NOUN FOR BODY PARTS/KINSHIP</td>
</tr>
<tr>
<td><em>both</em> + POSSESSIVE DETERMINER + NOUN FOR BODY PARTS/KINSHIP</td>
</tr>
<tr>
<td><em>both of</em> + POSSESSIVE DETERMINER + NOUN FOR BODY PARTS/KINSHIP</td>
</tr>
</tbody>
</table>
B Exclusions

B1 Exclusions

Knock-out effects
As described in Section 2.1.3, tokens where a factor “knocks out” the variation were excluded from the statistics. There were four cases of knock-out effects. The first one concerns NPs with both (of the) and a plural noun, where simple both is the only alternative if (i) the noun has restricted reference (see Section 3.3.4.2) and (ii) the noun does not denote body parts or kinship:

(1) Koy Detmer, the Colorado quarterback who had torn a knee ligament just two weeks before, played in parts of both halves […] (NYT95)

Second, all cases of all of + PERSONAL PRONOUNS were excluded when used in language fragments, such as short answers, appositions and independent prepositional phrases. The reason is that the syntactic alternative, the we/us (...) all variant, is never used in these linguistic structures. Example (2) illustrates such a case.

(2) I feel that more information is needed. For all of us. (IND95)

A third knock-out effect occurred in NPs with all/whole and temporal nouns and in NPs with simple both and the word days. Since newspaper material was used as material for the investigation, a number of tokens came from advertisements of opening times of restaurants, museums etc. and from information about events etc. Tokens of all + TEMPORAL NOUN, as in (3), and of simple both + PLURAL NOUN, as in (4), were excluded since no variation exists in this context.

(3) Closed lunch Saturday and all Sunday. (NYT95)

(4) The festival runs both days from 10 A.M. to 4:30 P.M.; admission is free. (NYT95)

There is finally a more general knock-out effect occurring in all cases where there is normally variation between a variant with of and one without (as in all of the children vs. all the children). If the quantifier is preceded by another quantifier + or, as in (5), variation is impossible. Here some requires an of-construction, with the consequence that all without of cannot be used.

(5) Fire experts say that if the door had been accessible or the sprinkler system had worked, some or all of the victims might have escaped before being overcome by smoke and carbon monoxide. (NYT95)
Fixed expressions
As mentioned in Section 2.1.4, a large number of tokens were excluded as fixed expressions since they did not exhibit any variation. The basis for deciding what constructions to exclude was twofold. First, these constructions were found as whole phrases in one or more dictionaries. Second, there was no variation in the corpora. If variation was found in expressions which dictionaries considered to be fixed, these were included in the statistics (see below). Definitions given with some of the figurative expressions below were taken from Longman Dictionary of Contemporary English (2003). The following constructions were excluded as fixed expressions:

(1) NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN:

- all the/this while
- for all the world as if, for all the world like (‘exactly as if/like’)
- make all the difference
- the whole gamut (‘all the possibilities between two extremes’)
- /go/ the whole hog (‘to do something as completely or as well as you can, without any limits’)
- the whole idea
- the whole lot
- the whole matter
- the whole point /of/
- the whole shebang (‘the whole thing’)
- the whole shooting match (‘the whole of a situation, or an event that is the best or most complete of its kind’)
- the whole thing

(2) NPs with all/whole, DETERMINER and MASS NOUN:

- all my love
- all the best (‘used to express good wishes for the future’)
- all the fashion
- all the go (‘very fashionable’)
- all the rage (‘very popular and fashionable’)


The whole idea was not found in dictionaries, but since it is very similar in meaning to the whole point and exhibited no variation in the corpus, it was excluded as a fixed expression.

The whole matter was not found in dictionaries, but since it is very similar in meaning to the whole thing and exhibited no variation in the corpus it was excluded as a fixed expression.

One example of all the thing was found in the spoken American corpus, but this single case did not justify the dismissal of the whole thing as a fixed expression.

Tokens were deleted when used as isolated phrases, as in ‘All my love. Gracie says the message […] (IND95), and otherwise included, as in A person with whom I’ve had many creative differences […] but who tonight has all my love and respect and affection (NYT95).
• /and, or/ all that, this\textsuperscript{159} + a common noun of a semantically rather non-specific kind, very often with a negative connotation (baloney, bit, blah blah blah, bollocks, bullshit, business, crap, crud, garbage, guff, hoopla, junk, lot, nonsense, rot, rubbish, scum, shit, stuff, thing)\textsuperscript{160}
• and all that jazz (‘and things like that’)
• the whole truth

(3) NPs with all/whole, DETERMINER and PLURAL NOUN

• /and/ all these, those /kind, sort of/ + things\textsuperscript{161}

(4) NPs with both and PLURAL NOUN

• in both cases
• in both senses /of the word/
• on both accounts/counts
• the best of both worlds (‘a situation in which you have the advantages of two different things without any of the disadvantages’)
• the worst of both worlds (a jocular distortion of the best of both worlds)

(5) NPs with half, DETERMINER and SINGULAR COUNT NOUN

• /be/ half the battle (‘you have done the most difficult part of something and the rest is easy’)

(6) NPs with half, the indefinite article and singular or numeral

• a half-back (‘a player in football, rugby, hockey…’ or ‘a player in American football …’)

\textsuperscript{159} This construction sometimes includes a premodifier, such as bloody or kind of (as in all this bloody shit)

\textsuperscript{160} Tokens were deleted when linked by and (as in [...] trying to act like white guys and all this stuff, LSAC), or used as appositions ([...] he told me I don’t wanna talk to you any more. blah, blah, all that rubbish, BNC), otherwise included (as in Took us half the night to get all that stuff in, RNC). Three examples of and all of this/that + [common noun] were found in the spoken American corpus and one in The Sydney Morning Herald. However, these few cases did not justify the dismissal of /and/ all this/that + [common noun] as a fixed expression. In those cases where expressions that are generally regarded as fixed were included (e.g. all the time, see below), there were several tokens of an alternative construction (e.g. 53 tokens of the variant expression all of the time). As for cases of all this/that [+ common noun] which were not linked by and or used as appositions, however, the material included a larger number of tokens of the of variant, as in And we can share all of this stuff (LSAC). Accordingly, these cases were not considered fixed and instead included in the material. The same goes for cases where the head of the noun phrase was a pronoun (and all this/that), rather than determined noun (e.g. and all that shit). Here, a great many examples of all of (and all of this/that) were found. Accordingly, and all that could not be excluded as a fixed expression.

\textsuperscript{161} Two examples of and all of these/those things were found in The Sydney Morning Herald, one in The Independent and one in The New York Times, but these few cases did not justify the dismissal of /and/ all these/those things as a fixed expression.
• a half-breed (‘a word which is now considered offensive, meaning someone whose parents are of different races’)
• a half-brother
• a half-caste (same as half-breed)
• a half-circle
• a half-fare
• a half-life (‘the half life of a radioactive substance is the length of time it takes to lose half of its radioactivity’)
• a half-light (‘the dull grey light you see when it is almost dark but not completely dark’)
• a half-marathon
• a half-moon
• a half-negro
• a half-nelson (a term in wrestling)
• a half-nod
• a half-note
• a half-peace
• a half-price
• a half-sister
• a half-smile
• a half-stroke
• a half-swing
• a half-tone
• a half-truth
• a half-volley (a term in tennis or cricket)
• a half-wit (‘a stupid person or someone who has done something stupid’)

(7) NPs with all/whole /THE DEFINITE ARTICLE/ and TEMPORAL NOUN:

• all day, night etc. long

B2 “Fixed” expressions included in the study

The following constructions, which are generally regarded as fixed expressions, were included because they exhibited variation in the corpus material:

• all/of the time, the whole time
• and all/of that
• for all/of (‘in spite of’)
• half/of the story (‘an explanation that is not complete’)

---

162 In Section 7.3.4 it was suggested that there is sometimes a meaning difference in terms of specific-generic reference between all the time and the whole time.
163 Jespersen (1933:185) points to the “obliteration of the original meaning of all” in the for all construction.
C Search procedures used with the different corpora

The five corpora used are all of different types and thus required somewhat different search techniques, which will be accounted for here.

The British National Corpus (BNC)
The BNC has its own search program, called SARA. This was, however, not used for the present study. Instead an interface created by a research team at the English department of the University of Zurich (Sebastian Hoffmann, Hans-Martin Lehmann and Peter Schneider) was accessed via the Internet. After a restriction to the particular material that was to be used (i.e. spoken texts in dialogue settings), lexical searches (e.g. *all the*) were made, concordance lines were sorted alphabetically, irrelevant examples were deleted manually (which sometimes required an expansion of the co-text) and finally each file was downloaded as a text file and saved on the computer hard disk. In some cases (see Section 5.1) tokens were divided (manually) into groups (e.g. [all the + SINGULAR COUNT NOUN], [all the + MASS NOUN] and [all the + PLURAL NOUN]) and put in separate text files. Tokens in subgroups (e.g. *all/whole + TEMPORAL NOUN*) were extracted manually from the larger text files (*all/whole + SINGULAR COUNT NOUNS* in this case). In searches for [all + GEOGRAPHICAL NAME] a specific procedure had to be used, since such a query involves a large number of different lexical items. I made a query for just *all*, and then went through the concordance lines manually to find those cases where *all* was immediately followed by a geographical name (by looking for capital letters).

The Independent
The Independent on CD-ROM comes with a search software called Freeway. This program is easy to handle and allows for searches of *all, whole, both* and *half*. Of, however, is a noise word, a fact which made it necessary to use another search program in order to search for constructions like *all of the children*. Searches were made in Freeway for all newspaper texts including *all, whole, both* and *half* and these were downloaded as text files and saved on the computer hard disk. Subsequently, the concordance programme Wordsmith was used for lexical searches on these text files, after which the same procedures were carried out as with the BNC.

The Longman Spoken American Corpus
This corpus does not have its own search program, so lexical searches were carried out with the Wordsmith program directly on the text files on the corpus
CD-ROM. The same lexical search procedures were used as for the BNC and The Independent.

**The New York Times**

This corpus provided the greatest search difficulties of all the corpora, owing to the fact that all four quantifiers are considered noise words by its own search software (Proquest). Fortunately, the CD-ROM can be used directly with the *Wordsmith* program, so lexical searches were carried out this way instead, after which the same procedures as those described above were used. A particular problem concerned the search for the [all + GEOGRAPHICAL NAME] construction. The procedure used with the other corpora could not be undertaken with *The New York Times*, owing to the fact that (i) searches were carried out directly on the CD-ROM text files, (ii) the text consisted of mainly one extremely large text file (plus a few smaller ones, comprising, for instance, headlines) and (iii) *Wordsmith* does not allow more than 16,000 concordance lines for a search. In order to get around the problem in the best way possible, searches were made with all followed by particular geographical names instead, covering a large number of countries (taken from the *Longman dictionary of contemporary English*), all continents, all American states, all New York city areas, a number of large American cities and a large number of world capitals and other important cities (for instance, all those occurring in the other corpora). The consequence of this could be that the figures for all + GEOGRAPHICAL NAME (from *The New York Times*) in Chapters 5 and 6 are slightly lower than would have been the case had the normal procedure been undertaken.

**The Sydney Morning Herald**

Finally, *The Sydney Morning Herald* has its own software (Fairfax). This program does not use noise words, so lexical searches could be made directly in Fairfax. The texts which included the four quantifiers were then downloaded as text documents, after which the same procedures were carried out by means of *Wordsmith* as with the other corpora.
D  Frequency tables for the analysis of linguistic factors

The following tables show the frequencies of all statistically significant correlations. They are presented factor by factor in the same order as in Chapter 7. In all tables except the first one (type of central determiners), the frequencies are those of the samples (100 tokens per variant and corpus). In the total corpus population there were sometimes great discrepancies in frequency between the different syntactic variants. The total frequencies of tokens found in the corpora are therefore given in the “total population” row of each table. With two of the linguistic features (the presence of modifiers, D6, and the presence of an adjacent of, D7), subcategories are indicated by smaller type. Normalised frequencies (when there were fewer than 100 tokens) are given in italics and significant correlations (at the <0.01 level unless otherwise indicated) by bold type.

D1. Type of central determiner

Table D1:1. Type of central determiner in NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN\(^{164}\)

<table>
<thead>
<tr>
<th></th>
<th>NYT 95</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>All</td>
<td>87</td>
<td>3%</td>
<td>308</td>
<td>41%</td>
<td>62</td>
<td>22%</td>
</tr>
<tr>
<td>All of</td>
<td>88</td>
<td>3%</td>
<td>53</td>
<td>7%</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Whole</td>
<td>2465</td>
<td>93%</td>
<td>396</td>
<td>52%</td>
<td>214</td>
<td>77%</td>
</tr>
<tr>
<td>The whole of</td>
<td>11</td>
<td>0%</td>
<td>3</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>2651</td>
<td>100%</td>
<td>757</td>
<td>100%</td>
<td>279</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>97</td>
<td>3%</td>
<td>249</td>
<td>46%</td>
<td>55</td>
<td>31%</td>
</tr>
<tr>
<td>All of</td>
<td>28</td>
<td>1%</td>
<td>16</td>
<td>3%</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Whole</td>
<td>3159</td>
<td>92%</td>
<td>241</td>
<td>45%</td>
<td>106</td>
<td>59%</td>
</tr>
<tr>
<td>The whole of</td>
<td>162</td>
<td>5%</td>
<td>31</td>
<td>6%</td>
<td>15</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>3446</td>
<td>100%</td>
<td>537</td>
<td>100%</td>
<td>180</td>
<td>100%</td>
</tr>
</tbody>
</table>

\(^{164}\) Here and throughout, all tokens including way as the head of the NP (all the way, all of the way, the whole way) were excluded from the statistics in this variable.
Table D1:2. Type of central determiner in NPs with *half*, *DETERMINER* and *PLURAL NOUN*

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>definite article</td>
<td>possessive determiner</td>
<td>demonstrative determiner</td>
<td>genitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Half</td>
<td>658</td>
<td>56%</td>
<td>118</td>
<td>55%</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Half of</td>
<td>516</td>
<td>443%</td>
<td>97</td>
<td>45%</td>
<td>34</td>
<td>89%</td>
</tr>
<tr>
<td>Total</td>
<td>1174</td>
<td>100%</td>
<td>215</td>
<td>100%</td>
<td>38</td>
<td>100%</td>
</tr>
</tbody>
</table>

|        | IND95                  |        |        |        |        |        |
|        | definite article       | possessive determiner | demonstrative determiner | genitive |        |        |
|        | N | % | N | % | N | % | N | % |        |        |
| Half   | 394 | 71% | 95 | 80% | 5 | 24% | 31 | 74% |        |        |
| Half of| 162 | 29% | 24 | 20% | 16 | 76% | 11 | 26% |        |        |
| Total  | 556 | 100% | 119 | 100% | 21 | 100% | 42 | 100% |        |        |

D2. Divisibility

Table D2:1. Divisibility in NPs with *all/whole*, *DETERMINER* and *SINGULAR COUNT NOUN*

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Divisible</td>
<td>86</td>
<td>54</td>
</tr>
<tr>
<td>Indivisible</td>
<td>14</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

| Tot pop | 458 | 152 | 3081 | 14 | 403 | 49 | 3510 | 210 |
## D3. Animacy

### Table D3:1. Animacy in NPs with *all/whole*, *DETERMINER* and *SINGULAR COUNT NOUN*\(^{165}\)

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>whole</em></td>
<td><em>the whole of</em></td>
</tr>
<tr>
<td>Inanimate</td>
<td>86</td>
<td>82</td>
<td>74</td>
<td>100</td>
</tr>
<tr>
<td>Animate</td>
<td>14</td>
<td>18</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>Proper</td>
<td>4</td>
<td>11</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Inferred</td>
<td>10</td>
<td>7</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total pop.</td>
<td>458</td>
<td>152</td>
<td>3081</td>
<td>14</td>
</tr>
</tbody>
</table>

### Table D3:2. Animacy in NPs with *both*, *THE DEFINITE ARTICLE*/ and *PLURAL NOUN*

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>both</em></td>
<td><em>both the</em></td>
<td><em>both of the</em></td>
<td><em>both</em></td>
</tr>
<tr>
<td>Inanimate</td>
<td>76</td>
<td>56</td>
<td>43</td>
<td>68</td>
</tr>
<tr>
<td>Animate</td>
<td>24</td>
<td>44</td>
<td>56</td>
<td>32</td>
</tr>
<tr>
<td>Proper</td>
<td>10</td>
<td>25</td>
<td>47</td>
<td>22</td>
</tr>
<tr>
<td>Inferred</td>
<td>14</td>
<td>19</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total population</td>
<td>5531</td>
<td>19</td>
<td>60</td>
<td>2607</td>
</tr>
</tbody>
</table>

### Table D3:3. Animacy in NPs with *all/whole*, *THE DEFINITE ARTICLE*/ and *GEOGRAPHICAL NAME*

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>the whole of</em></td>
<td><em>all</em></td>
</tr>
<tr>
<td>Inanimate</td>
<td>54</td>
<td>76</td>
<td>82</td>
<td>51</td>
</tr>
<tr>
<td>Inf. animate</td>
<td>46</td>
<td>24</td>
<td>18</td>
<td>49</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total pop.</td>
<td>55</td>
<td>258</td>
<td>21</td>
<td>45</td>
</tr>
</tbody>
</table>

---

\(^{165}\) This is the only case in the study where a correlation occurring in just one of the corpora is reported in a table rather than in the running text. The reason for the inclusion of the table is that the figures corroborate a region specific correlation hypothesis.
Table D3:4. Animacy in NPs with both /POSSESSIVE DETERMINER/ and NOUN FOR BODY PARTS AND KINSHIP

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>both</td>
<td>both my</td>
<td>both of my</td>
<td>both</td>
<td>both my</td>
<td>both of my</td>
</tr>
<tr>
<td>Inanimate</td>
<td>62</td>
<td>29</td>
<td>25</td>
<td>73</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>Animate proper</td>
<td>38</td>
<td>71</td>
<td>75</td>
<td>27</td>
<td>68</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total pop.</td>
<td>322</td>
<td>61</td>
<td>30</td>
<td>224</td>
<td>73</td>
<td>1</td>
</tr>
</tbody>
</table>

D4. Natural and arbitrary time division

Table D4:1. Natural and arbitrary time division in NPs with all/whole, /THE DEFINITE ARTICLE/ and TEMPORAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>the whole</td>
<td>all</td>
<td>the whole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural</td>
<td>87(^{166})</td>
<td>85</td>
<td>89</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbitrary</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>812</td>
<td>103</td>
<td>1276</td>
<td>110</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D5. Type of “head”

Table D5:1. Type of head in NPs with half, THE INDEFINITE ARTICLE and SINGULAR NOUN or NUMERAL

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>half a/an</td>
<td>a half</td>
<td>half a/an</td>
<td>a half</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nouns for time/space</td>
<td>34</td>
<td>39</td>
<td>32</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partitive nouns</td>
<td>4</td>
<td>10</td>
<td>9</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numerals etc.</td>
<td>44</td>
<td>38</td>
<td>36</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>18</td>
<td>13</td>
<td>23</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>1841</td>
<td>1254</td>
<td>2136</td>
<td>127</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{166}\) The correlation was only significant at the <0.05 level.
### D6. Modifiers

**Table D6:1. The presence of modifiers in NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN**

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
<td>whole</td>
<td>the whole</td>
</tr>
<tr>
<td>No modifier</td>
<td>91</td>
<td>62</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>Modifer</td>
<td>9</td>
<td>38</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>(a) premodifier</td>
<td>6</td>
<td>28</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>(b) postmodifier</td>
<td>3</td>
<td>5</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>(c) both</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total pop.</strong></td>
<td>458</td>
<td>152</td>
<td>3081</td>
<td>14</td>
</tr>
</tbody>
</table>

**Table D6:2. The presence of modifiers in NPs with all/whole, DETERMINER and MASS NOUN**

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>all of</td>
<td>whole</td>
<td>whole</td>
</tr>
<tr>
<td>No modifier</td>
<td>59</td>
<td>59</td>
<td><strong>81</strong></td>
<td>45</td>
</tr>
<tr>
<td>Modifer</td>
<td><strong>41</strong></td>
<td><strong>41</strong></td>
<td>19</td>
<td><strong>55</strong></td>
</tr>
<tr>
<td>(a) premodifier</td>
<td>18</td>
<td>25</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>(b) postmodifier</td>
<td>20</td>
<td>15</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>(c) both</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>5856</td>
<td>515</td>
<td>73</td>
<td>5242</td>
</tr>
</tbody>
</table>
### Table D6:3. The presence of modifiers in NPs with *all*, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No modifier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>all</td>
<td>41</td>
<td>50</td>
</tr>
<tr>
<td>all of</td>
<td>35</td>
<td>55</td>
</tr>
<tr>
<td><strong>Modifier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) premodifier</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>(b) postmodifier</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>(c) both</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>12732</td>
<td>2254</td>
</tr>
</tbody>
</table>

### Table D6:4. The presence of modifiers in NPs with *both* /THE DEFINITE ARTICLE/ and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No modifier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>both</td>
<td>81</td>
<td>91</td>
</tr>
<tr>
<td>both the</td>
<td>50</td>
<td>37</td>
</tr>
<tr>
<td>both of</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td><strong>Modifier</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) premodifier</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>(b) postmodifier</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>(c) both</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>5531</td>
<td>19</td>
</tr>
</tbody>
</table>

### D7. An adjacent of

### Table D7:1. The presence of an adjacent *of* in NPs with *all/whole*, DETERMINER and SINGULAR NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No of</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>all</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>all of</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>whole</td>
<td>92</td>
<td>98</td>
</tr>
<tr>
<td>the whole of</td>
<td>69</td>
<td>88</td>
</tr>
<tr>
<td><strong>An adj. of</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) in postmod.</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(b) preceding</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>101</td>
</tr>
<tr>
<td><strong>Total pop.</strong></td>
<td>458</td>
<td>152</td>
</tr>
</tbody>
</table>

210
Table D7:2. The presence of an adjacent *of* in NPs with *all/whole*, DETERMINER and MASS NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>whole</em></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>whole</em></td>
</tr>
<tr>
<td><strong>No of</strong></td>
<td>89</td>
<td>99</td>
<td>93</td>
<td>82</td>
<td>96</td>
<td>90</td>
</tr>
<tr>
<td>An adjacent <em>of</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) in the postmodifier</td>
<td>11</td>
<td>1</td>
<td>7</td>
<td>18</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>(b) preceding</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>12</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>5856</td>
<td>515</td>
<td>73</td>
<td>5242</td>
<td>79</td>
<td>92</td>
</tr>
</tbody>
</table>

Table D7:3. The presence of an adjacent *of* in NPs with *all*, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>all</em></td>
<td><em>all of</em></td>
</tr>
<tr>
<td><strong>No of</strong></td>
<td>84</td>
<td>94</td>
<td>80</td>
<td>94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An adjacent <em>of</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) in the postmodifier</td>
<td>16</td>
<td>6</td>
<td>20</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) preceding</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) both</td>
<td>10</td>
<td>3</td>
<td>14</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>12732</td>
<td>2254</td>
<td>10789</td>
<td>384</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table D7:4. The presence of an adjacent *of* in NPs with *all* and DEMONSTRATIVE PRONOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>all</em></td>
<td><em>all of</em></td>
</tr>
<tr>
<td><strong>No of</strong></td>
<td>92</td>
<td>98</td>
<td>91</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An adjacent <em>of</em> (preceding)</td>
<td>8</td>
<td>2</td>
<td>9</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total population</strong></td>
<td>1678</td>
<td>478</td>
<td>2292</td>
<td>260</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table D7:5. The presence of an adjacent of in NPs with all/whole, /THE DEFINITE ARTICLE/ and GEOGRAPHICAL NAME\textsuperscript{167}

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all of</td>
<td>the whole of</td>
</tr>
<tr>
<td>No of</td>
<td>88</td>
<td>98</td>
</tr>
<tr>
<td>An adjacent of (prec.)</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Total population | 55  | 258  | 21  | 45  | 59  | 148  |

Table D7:6. The presence of an adjacent of in NPs with both and NOUN FOR BODY PARTS OR KINSHIP\textsuperscript{168}

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>both of</td>
<td>both of</td>
</tr>
<tr>
<td>No of</td>
<td>96</td>
<td>2</td>
</tr>
<tr>
<td>An adjacent of</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>(a) in the postmodifier</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(b) preceding</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>(c) both</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Total population | 322  | 61    | 30    | 224   | 73    | 1     |

D8. Focus markers

Table D8:1. The presence of focus markers in NPs with all/whole, DETERMINER and SINGULAR COUNT NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th>IND95</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all of</td>
<td>the whole of</td>
</tr>
<tr>
<td>No focus marker</td>
<td>92</td>
<td>63</td>
</tr>
<tr>
<td>Focus marker</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Total pop. | 458  | 152  | 3081  | 14    | 403   | 49    | 3510  | 210  |

\textsuperscript{167} The correlation was only significant at the <0.05 level.

\textsuperscript{168} Again, we have a case of a correlation that was only significant at the <0.05 level.
Table D8:2. The presence of focus markers in NPs with *all/whole*, DETERMINER and MASS NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>whole</em></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td><em>whole</em></td>
<td></td>
</tr>
<tr>
<td>No focus marker</td>
<td>95</td>
<td>83</td>
<td>100</td>
<td>99</td>
<td>80</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Focus marker</td>
<td>5</td>
<td>17</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>5856</td>
<td>515</td>
<td>73</td>
<td>5242</td>
<td>79</td>
<td>92</td>
<td></td>
</tr>
</tbody>
</table>

Table D8:3. The presence of focus markers in NPs with *all*, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td></td>
<td><em>all</em></td>
<td><em>all of</em></td>
<td></td>
</tr>
<tr>
<td>No focus marker</td>
<td>91</td>
<td>84</td>
<td>93</td>
<td>82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus marker</td>
<td>9</td>
<td>16</td>
<td>7</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>12732</td>
<td>2254</td>
<td>10789</td>
<td>384</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table D8:4. The presence of focus markers in NPs with *all* and PERSONAL PRONOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>we all</em></td>
<td><em>all of us</em></td>
<td></td>
<td><em>we all</em></td>
<td><em>all of us</em></td>
</tr>
<tr>
<td>No focus marker</td>
<td>99</td>
<td>87</td>
<td>99</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>Focus marker</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>4078</td>
<td>863</td>
<td>5022</td>
<td>520</td>
<td></td>
</tr>
</tbody>
</table>

Table D8:5. The presence of focus markers in NPs with *half*, DETERMINER and PLURAL NOUN

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>half</em></td>
<td><em>half of</em></td>
<td></td>
<td><em>half</em></td>
<td><em>half of</em></td>
</tr>
<tr>
<td>No focus marker</td>
<td>40</td>
<td>24</td>
<td>54</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Focus marker</td>
<td>60</td>
<td>76</td>
<td>46</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total population</td>
<td>845</td>
<td>726</td>
<td>525</td>
<td>213</td>
<td></td>
</tr>
</tbody>
</table>
Table D8:6. The presence of focus markers in NPs with *half*, *THE INDEFINITE ARTICLE* and *SINGULAR NOUN OR NUMERAL*

<table>
<thead>
<tr>
<th></th>
<th>NYT95</th>
<th></th>
<th>IND95</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>half a/an</td>
<td>a half</td>
<td>half a/an</td>
<td>a half</td>
</tr>
<tr>
<td>No focus marker</td>
<td>65</td>
<td>88</td>
<td>75</td>
<td>94 (89)</td>
</tr>
<tr>
<td>Focus marker</td>
<td>35</td>
<td>12</td>
<td>25</td>
<td>6 (11)</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total population</td>
<td>1841</td>
<td>1254</td>
<td>2136</td>
<td>127</td>
</tr>
</tbody>
</table>
E  Phi coefficients for the correlations

The following tables show the phi coefficients obtained in the chi-square test for the correlations between variants and factors analysed in the study (see Section 4.3.4). These form the basis of the relative positioning of correlations with factor categories within each of the figures in Chapter 8. The possible values range from 1 (absolute correlation) to 0 (no correlation).

Table E1 presents the phi values for correlations between variants and regions. All correlations with the phi coefficient indicated were significant at the <0.01 level. Some correlations were significant at the <0.05 level only. These were also included to indicate that this factor category is potentially interesting although more likely than the other correlations to have occurred by chance.

Table E1.  Phi coefficients for correlations with regions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significant correlations</th>
<th>Phi coeff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>all + DETERMINER + MASS NOUN</td>
<td>BrE, AusE</td>
<td>.104</td>
</tr>
<tr>
<td>all of + DETERMINER + MASS NOUN</td>
<td>AmE</td>
<td>.119</td>
</tr>
<tr>
<td>all + DETERMINER + PLURAL NOUN</td>
<td>BrE</td>
<td>.152</td>
</tr>
<tr>
<td>all of + DETERMINER + PLURAL NOUN</td>
<td>AmE</td>
<td>.166</td>
</tr>
<tr>
<td>both + PLURAL NOUN</td>
<td>AmE</td>
<td>.075</td>
</tr>
<tr>
<td>both the + PLURAL NOUN</td>
<td>BrE</td>
<td>.094</td>
</tr>
<tr>
<td>both these, my etc. + PLURAL NOUN</td>
<td>BrE, AusE</td>
<td>.332</td>
</tr>
<tr>
<td>both of these, my etc. + PLURAL NOUN</td>
<td>AmE</td>
<td>.332</td>
</tr>
<tr>
<td>half + DET. + SINGULAR COUNT NOUN</td>
<td>BrE, AusE</td>
<td>.111</td>
</tr>
<tr>
<td>half of + DET. + SINGULAR COUNT NOUN</td>
<td>AmE</td>
<td>.111</td>
</tr>
<tr>
<td>half + DETERMINER + PLURAL NOUN</td>
<td>BrE, AusE</td>
<td>.151</td>
</tr>
<tr>
<td>half of + DETERMINER + PLURAL NOUN</td>
<td>AmE</td>
<td>.151</td>
</tr>
<tr>
<td>all + DEMONSTRATIVE PRONOUN</td>
<td>BrE</td>
<td>.117</td>
</tr>
<tr>
<td>all of + DEMONSTRATIVE PRONOUN</td>
<td>AmE</td>
<td>.142</td>
</tr>
<tr>
<td>both + DEMONSTRATIVE PRONOUN</td>
<td>BrE</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>both of + DEMONSTRATIVE PRONOUN</td>
<td>AmE, AusE</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>we/us/they/them all</td>
<td>BrE</td>
<td>.144</td>
</tr>
<tr>
<td>all of us/their</td>
<td>AmE</td>
<td>.094</td>
</tr>
</tbody>
</table>
Table E1. Phi coefficients for correlations with regions (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significant correlations</th>
<th>Phi coeff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>we/us/they/them both</td>
<td>BrE</td>
<td>.097</td>
</tr>
<tr>
<td>both of us/then</td>
<td>AmE, AusE</td>
<td>.086</td>
</tr>
<tr>
<td>half a</td>
<td>BrE, AusE</td>
<td>.380</td>
</tr>
<tr>
<td>a half</td>
<td>AmE</td>
<td>.380</td>
</tr>
<tr>
<td>all + TEMPORAL NOUN</td>
<td>AmE</td>
<td>.068</td>
</tr>
<tr>
<td>the whole + TEMPORAL NOUN</td>
<td>BrE, AusE</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>all of + GEOGRAPHICAL NAME</td>
<td>AmE</td>
<td>.440</td>
</tr>
<tr>
<td>the whole of + GEOGRAPHICAL NAME</td>
<td>BrE</td>
<td>.442</td>
</tr>
<tr>
<td>both + NOUN FOR BODY PARTS/KINSHIP</td>
<td>AusE</td>
<td>.095</td>
</tr>
<tr>
<td>both my + NOUN FOR BODY PARTS ETC.</td>
<td>BrE</td>
<td>.129</td>
</tr>
<tr>
<td>both of my + NOUN FOR BODY PARTS ETC.</td>
<td>AmE</td>
<td>.171</td>
</tr>
<tr>
<td>all + DET. + COLLECTIVE NOUN</td>
<td>BrE, AusE</td>
<td>.245</td>
</tr>
<tr>
<td>DET + whole + COLLECTIVE NOUN</td>
<td>AmE</td>
<td>.204</td>
</tr>
</tbody>
</table>

Table E2 shows the few correlations found between media and different variants. Most of these were only observed in one of the corpora. The reason for including tables anyhow was (as described in Section 2.1.2) that they generally comprised much larger frequencies than the 200-token samples used for the analysis of linguistic factors; consequently, they could be expected to be more reliable.

Table E2. Phi coefficients for correlations with media

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significant correlations</th>
<th>Phi coeff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>all the + SINGULAR COUNT NOUN</td>
<td>spoken AmE</td>
<td>.209</td>
</tr>
<tr>
<td>all this/my + SINGULAR COUNT NOUN</td>
<td>spoken BrE</td>
<td>.301</td>
</tr>
<tr>
<td>all this/my + SINGULAR COUNT NOUN</td>
<td>written AmE</td>
<td>.156</td>
</tr>
<tr>
<td>both of these + PLURAL NOUN</td>
<td>spoken</td>
<td>.208</td>
</tr>
<tr>
<td>a half</td>
<td>written AmE</td>
<td>.048</td>
</tr>
<tr>
<td>the whole + TEMPORAL NOUN</td>
<td>spoken AmE</td>
<td>.158</td>
</tr>
<tr>
<td>both + NOUN FOR BODY PARTS/KINSHIP</td>
<td>written</td>
<td>.095</td>
</tr>
</tbody>
</table>

The values for correlations between variants and linguistic factors are presented in table E3. In cases where there were more than one correlation, these are ranked according to their phi coefficients. Correlations that were only significant at the <0.05 level were placed at the bottom of the particular ranking list.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Significant correlations</th>
<th>Phi coeff.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all</em> + DET. + SINGULAR COUNT NOUN</td>
<td>adverbial function</td>
<td>.527</td>
</tr>
<tr>
<td></td>
<td>poss/dem. determiner</td>
<td>.481</td>
</tr>
<tr>
<td></td>
<td>no focus marker</td>
<td>.423</td>
</tr>
<tr>
<td></td>
<td>divisible noun</td>
<td>.405</td>
</tr>
<tr>
<td></td>
<td>no modifier</td>
<td>.264</td>
</tr>
<tr>
<td></td>
<td>animate ref. (in BrE)</td>
<td>.233</td>
</tr>
<tr>
<td><em>all of</em> + DET. + SINGULAR COUNT NOUN</td>
<td>a focus marker</td>
<td>.423</td>
</tr>
<tr>
<td></td>
<td>a modifier</td>
<td>.264</td>
</tr>
<tr>
<td></td>
<td>animate ref. (in BrE)</td>
<td>.233</td>
</tr>
<tr>
<td></td>
<td>object function</td>
<td>.179</td>
</tr>
<tr>
<td>DET. + <em>whole</em> + SINGULAR COUNT NOUN</td>
<td>the definite article</td>
<td>.441</td>
</tr>
<tr>
<td></td>
<td>no focus marker</td>
<td>.423</td>
</tr>
<tr>
<td></td>
<td>indivisible noun</td>
<td>.301</td>
</tr>
<tr>
<td></td>
<td>no modifier</td>
<td>.264</td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>.250</td>
</tr>
<tr>
<td></td>
<td>inanimate ref. (in BrE)</td>
<td>.233</td>
</tr>
<tr>
<td></td>
<td>an adjacent <em>of</em></td>
<td>&lt;0.05</td>
</tr>
<tr>
<td><em>the whole of</em> + DET. + SING. COUNT NOUN</td>
<td>no focus marker</td>
<td>.423</td>
</tr>
<tr>
<td></td>
<td>a modifier</td>
<td>.243</td>
</tr>
<tr>
<td></td>
<td>inanimate ref. (in BrE)</td>
<td>.233</td>
</tr>
<tr>
<td></td>
<td>no adjacent <em>of</em></td>
<td>&lt;0.05</td>
</tr>
<tr>
<td><em>all</em> + DETERMINER + MASS NOUN</td>
<td>no focus marker</td>
<td>.296</td>
</tr>
<tr>
<td></td>
<td>prep. comp. function</td>
<td>.272</td>
</tr>
<tr>
<td></td>
<td>a modifier</td>
<td>.241</td>
</tr>
<tr>
<td></td>
<td>an adjacent <em>of</em></td>
<td>.163</td>
</tr>
<tr>
<td></td>
<td>object function</td>
<td>.129</td>
</tr>
<tr>
<td><em>all of</em> + DETERMINER + MASS NOUN</td>
<td>a focus marker</td>
<td>.296</td>
</tr>
<tr>
<td></td>
<td>a modifier</td>
<td>.241</td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>.176</td>
</tr>
<tr>
<td></td>
<td>no adjacent <em>of</em></td>
<td>.163</td>
</tr>
<tr>
<td></td>
<td>object function</td>
<td>.129</td>
</tr>
<tr>
<td>DETERMINER + <em>whole</em> + MASS NOUN</td>
<td>adverbial function</td>
<td>.571</td>
</tr>
<tr>
<td></td>
<td>no focus marker</td>
<td>.296</td>
</tr>
<tr>
<td></td>
<td>no modifier</td>
<td>.241</td>
</tr>
<tr>
<td></td>
<td>an adjacent <em>of</em></td>
<td>.163</td>
</tr>
</tbody>
</table>
Table E3. Phi coefficients for the correlations with linguistic factors
(continued)

<table>
<thead>
<tr>
<th>phrase</th>
<th>function</th>
<th>value</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>all + DETERMINER + PLURAL NOUN</em></td>
<td>an adjacent of</td>
<td>0.185</td>
</tr>
<tr>
<td></td>
<td>prep. comp. function</td>
<td>0.161</td>
</tr>
<tr>
<td></td>
<td>a modifier</td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>no focus marker</td>
<td>0.136</td>
</tr>
<tr>
<td><em>all of + DETERMINER + PLURAL NOUN</em></td>
<td>no adjacent of</td>
<td>0.185</td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>0.168</td>
</tr>
<tr>
<td></td>
<td>no modifier</td>
<td>0.146</td>
</tr>
<tr>
<td></td>
<td>a focus marker</td>
<td>0.136</td>
</tr>
<tr>
<td><em>both + PLURAL NOUN</em></td>
<td>no modifier</td>
<td>0.517</td>
</tr>
<tr>
<td></td>
<td>inanimate reference</td>
<td>0.236</td>
</tr>
<tr>
<td><em>both the + PLURAL NOUN</em></td>
<td>a modifier</td>
<td>0.517</td>
</tr>
<tr>
<td></td>
<td>animate reference</td>
<td>0.236</td>
</tr>
<tr>
<td><em>both of the + PLURAL NOUN</em></td>
<td>a modifier</td>
<td>0.517</td>
</tr>
<tr>
<td></td>
<td>animate reference</td>
<td>0.236</td>
</tr>
<tr>
<td><em>half + DETERMINER + PLURAL NOUN</em></td>
<td>no focus marker</td>
<td>0.235</td>
</tr>
<tr>
<td></td>
<td>possessive determiner</td>
<td>0.145</td>
</tr>
<tr>
<td></td>
<td>the definite article</td>
<td>0.145</td>
</tr>
<tr>
<td></td>
<td>genitive</td>
<td>0.145</td>
</tr>
<tr>
<td><em>half of + DETERMINER + PLURAL NOUN</em></td>
<td>a focus marker</td>
<td>0.235</td>
</tr>
<tr>
<td></td>
<td>demonstr. determiner</td>
<td>0.145</td>
</tr>
<tr>
<td><em>all+ DEMONSTRATIVE PRONOUN</em></td>
<td>an adjacent of</td>
<td>0.176</td>
</tr>
<tr>
<td></td>
<td>prep.compl. function</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td><em>all of + DEMONSTRATIVE PRONOUN</em></td>
<td>subject function</td>
<td>0.195</td>
</tr>
<tr>
<td></td>
<td>no adjacent of</td>
<td>0.176</td>
</tr>
<tr>
<td><em>we/us/they/them all</em></td>
<td>subject function</td>
<td>0.280</td>
</tr>
<tr>
<td></td>
<td>no focus marker</td>
<td>0.211</td>
</tr>
<tr>
<td><em>all of us/them</em></td>
<td>prep.compl. function</td>
<td>0.327</td>
</tr>
<tr>
<td></td>
<td>a focus marker</td>
<td>0.211</td>
</tr>
</tbody>
</table>
**Table E3. Phi coefficients for the correlations with linguistic factors (continued)**

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Type of Reference</th>
<th>Function</th>
<th>Coefficient (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>half + INDEF. ART + SING. NOUN or NUM.</td>
<td>a focus marker</td>
<td>.265 (.237)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>prep. comp. function</td>
<td>.170</td>
<td></td>
</tr>
<tr>
<td></td>
<td>numeral</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>a half + INDEF. ART + SING. NOUN or NUM.</td>
<td>no focus marker</td>
<td>.265 (.237)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP detem. function</td>
<td>.146</td>
<td></td>
</tr>
<tr>
<td></td>
<td>partitive noun</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>all + GEOGRAPHICAL NAME</td>
<td>animate reference</td>
<td>.235</td>
<td></td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>.145</td>
<td></td>
</tr>
<tr>
<td></td>
<td>an adjacent of</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>all of + GEOGRAPHICAL NAME</td>
<td>inanimate reference</td>
<td>.235</td>
<td></td>
</tr>
<tr>
<td></td>
<td>object function</td>
<td>.152</td>
<td></td>
</tr>
<tr>
<td></td>
<td>no adjacent of</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>the whole of + GEOGRAPH. NAME</td>
<td>inanimate reference</td>
<td>.235</td>
<td></td>
</tr>
<tr>
<td></td>
<td>object function</td>
<td>.152</td>
<td></td>
</tr>
<tr>
<td>all + TEMPORAL NOUN</td>
<td>adverbial function</td>
<td>.732</td>
<td></td>
</tr>
<tr>
<td></td>
<td>natural time division</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>the whole + TEMPORAL NOUN</td>
<td>prep. comp. function</td>
<td>.565</td>
<td></td>
</tr>
<tr>
<td></td>
<td>object function</td>
<td>.325</td>
<td></td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>.255</td>
<td></td>
</tr>
<tr>
<td></td>
<td>arbitrary time division</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>both + NOUN FOR BODY PARTS/KINSHIP</td>
<td>inanimate reference</td>
<td>.378</td>
<td></td>
</tr>
<tr>
<td></td>
<td>prep. of mp. function</td>
<td>.239</td>
<td></td>
</tr>
<tr>
<td></td>
<td>an adjacent of</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>both my + NOUN FOR BODY ARTS/KINSHIP</td>
<td>inanimate reference</td>
<td>.378</td>
<td></td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>.320</td>
<td></td>
</tr>
<tr>
<td></td>
<td>an adjacent of</td>
<td>&lt;0.05</td>
<td></td>
</tr>
<tr>
<td>both of my + NOUN F. BODY ARTS/KINSHIP</td>
<td>inanimate reference</td>
<td>.378</td>
<td></td>
</tr>
<tr>
<td></td>
<td>subject function</td>
<td>.320</td>
<td></td>
</tr>
<tr>
<td></td>
<td>no adjacent of</td>
<td>&lt;0.05</td>
<td></td>
</tr>
</tbody>
</table>

---

In this linguistic factor, the significant correlation concerns tokens where *a half century* used as a cricket were excluded. Otherwise, the correlation only occurred in the American material.
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