The Present Perfect in English:
Meaning, Interpretation and Use

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A thesis in fulfilment of the requirements for the degree of
Doctor of Philosophy

School of Humanities and Languages
University of New South Wales

May 2014
Originality Statement

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Date 5 March 2014
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Publications

Earlier versions of some sections of Chapters 3, 4, 5 and 6 have been published as the following journal articles and book chapter:


Abstract

This thesis is an investigation of the present perfect construction in Modern English (the auxiliary have + past participle). It examines the construction’s context-independent meaning alongside speaker inferences derived from the interplay between this meaning, the linguistic environment and non-linguistic knowledge. It also explores the construction’s variation in register, space and time. The discussion is founded on the inferential account of communication, and specifically, on the theoretical notion of relevance proposed in relevance theory (Sperber & Wilson, 1986/1995). The analysis is based on both introspective and naturally occurring data.

Chapter 1 lays the conceptual foundation of the thesis, introducing the general background, aims and approach of the research and important linguistic terminologies. Chapter 2 discusses several key features of the English present perfect and presents a critical evaluation of existing analyses.

Chapter 3 introduces the theoretical framework of the thesis. It outlines a perfect-state account of the construction’s semantics and proposes a discourse-pragmatic principle governing its interpretation and use in context. It is argued that the relevance-seeking inferential mechanism is responsible for value assignment of the perfect state. Chapter 4 elaborates on the semantic-pragmatic proposal by demonstrating its capacity to accommodate and account for the key features discussed in Chapter 2, as well as patterns of dialectal variation and grammaticalisation.

Chapters 5 and 6 further explore how the proposal sheds light onto the construction’s variation across three native varieties of English (British, American and Australian), a range of spoken and written registers, and three time periods (1750-1799, 1850-1899 and 1950-1999). By conducting systematic analysis of corpus data, significant dialectal and register variation has been revealed. It is found that register variation in the use of the present perfect can be attributed to interaction with various clausal elements. In addition, there has been a tendency since the late 18th century for the construction, in particular its resultative use, to be taken over by the simple past tense, a process underpinned by functional shifts triggered by context-induced inferencing.
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<th>Description</th>
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<tbody>
<tr>
<td>AmE</td>
<td>American English</td>
</tr>
<tr>
<td>ARCHER</td>
<td>A Representative Corpus of Historical English Registers</td>
</tr>
<tr>
<td>AusE</td>
<td>Australian English</td>
</tr>
<tr>
<td>BNC</td>
<td>the British National Corpus</td>
</tr>
<tr>
<td>BrE</td>
<td>British English</td>
</tr>
<tr>
<td>COCA</td>
<td>the Corpus of Contemporary American English</td>
</tr>
<tr>
<td>COHA</td>
<td>the Corpus of Historical American English</td>
</tr>
<tr>
<td>COOEE</td>
<td>the Corpus of Oz Early English</td>
</tr>
<tr>
<td>$e$</td>
<td>time of the situation</td>
</tr>
<tr>
<td>GloWbE-AUS</td>
<td>the Australian section of the Corpus of Global Web-based English</td>
</tr>
<tr>
<td>ICE</td>
<td>the International Corpus of English</td>
</tr>
<tr>
<td>$r$</td>
<td>reference time</td>
</tr>
<tr>
<td>$s$</td>
<td>deictic time</td>
</tr>
<tr>
<td>SBC</td>
<td>the Santa Barbara Corpus of Spoken American English</td>
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Chapter 1  Introduction

1.1  General background

The main objective of this study is to provide a comprehensive account of the English present perfect construction (the auxiliary have + past participle).

The study is motivated by the fact that the analysis of the semantics of the present perfect has long remained a controversial issue in the study of tense/aspect systems, and by the fact that the use of the present perfect is known to be subject not only to diachronic change, but also to variation along sociolinguistic and stylistic parameters. Generally speaking, linguists and grammarians find the English present perfect of interest for one or more of the following reasons:

1. The construction is difficult to define as a grammatical category, insofar as it conveys both temporal and aspeetual information. Opinions diverge on whether the construction is a primary tense (Declerck, 2006), a secondary tense (Huddleston, 2002), an aspect (Biber, Johansson, Leech, Conrad, & Finegan, 1999; Quirk, Greenbaum, Leech, & Svartvik, 1985), or a phase (Meyer, 1992; Michaelis, 1998).

2. Present perfect sentences may give rise to various interpretations. In the literature, a distinction is often made between continuative, experiential, resultative, and sometimes hot news perfects (McCawley, 1971). The availability of the various interpretations has led to disagreements over whether the present perfect is monosemous (Klein, 1992) or polysemous (Michaelis, 1994).

3. The English present perfect is somewhat different from non-present perfects. The former generally disallows specification by such temporal adverbials as yesterday and two days ago, which are nevertheless acceptable with the latter.

4. The use of the present perfect varies across dialects of English. It has often been commented that the construction is used more frequently in British English (‘BrE’) than in American English (‘AmE’) (Elsness, 1997; Vanneck, 1958).

1 ‘The English present perfect’, often shorted as ‘the present perfect’ in this thesis, is used to refer to the grammatical morpheme consisting of have in the present tense and the past participle of a main verb. The formally similar construction with the auxiliary be is termed differently, as the ‘be-perfect’.
5. Historically, the English present perfect has not evolved to take over the functional territory of the simple past tense, unlike its counterparts in other Indo-European languages such as French and German (Bybee, Perkins, & Pagliuca, 1994; Dahl, 1985; Harris, 1982). On the contrary, there are signs that a reverse trend is occurring in English (Elsness, 1997).

1.2 Aims and scope

The major questions addressed in this study can be formulated as follows: (a) how can we account for the semantics and pragmatics of the Modern English present perfect, and (b) how can the proposed account explain its variation across registers, space and time, in theoretically insightful ways?

This study is, first and foremost, an investigation of the English present perfect within contemporary theoretical frameworks of semantics and pragmatics. It seeks to describe, on the one hand, a central, invariant meaning conventionally associated with the present perfect form, and on the other hand, a range of speaker inferences derived from the interplay between such invariant meaning, the linguistic environment and communicators’ world knowledge. While many influential contemporary analyses of tense/aspect systems have their roots in formal semantics (e.g., Dowty, 1979; Giorgi & Pianesi, 1998; Higginbotham, 2009), the present study illustrates the indispensable role played by cognitive and communicative factors in temporal/aspectual interpretation. As such, it contributes towards our understanding of the context-dependence of tense-aspect markers, and in so doing, illuminates the intricacy of the semantics/pragmatics interface.

A central claim of this thesis is that the semantics of the present perfect underdetermines the interpretation it receives in discourse. I show that a minimalist monosemey account in conjunction with general pragmatic principles allows new insights into a range of puzzling linguistic facts, including the disambiguation of perfect interpretations, the present perfect’s co-occurrence with temporal adverbials, and the so-called ‘present existence constraint’ on its subject referent. While these linguistic facts have often been treated as unrelated and semantic in nature by previous research, I demonstrate that they can in fact be accounted for by independently motivated cognitive considerations using a discourse-pragmatic approach. Specifically, I draw from the
relevance-theoretic account of communication developed by Sperber and Wilson (1986/1995), integrating their concept of ‘optimal relevance’ with Reichenbach’s theory of tenses (Reichenbach, 1947/1966) and the perfect-state account outlined in more recent analyses of the perfect (Nishiyama & Koenig, 2010). My contention is that relevance as defined in relevance-theoretic terms provides a fruitful way of conceptualising the present perfect’s ‘current relevance’, a notion which has traditionally been associated with the construction but which, according to many, is not a part of its inherent semantics (Elsness, 1997; McCoard, 1978; Quirk et al., 1985). Inasmuch as the present proposal accounts for key data discussed in the literature as well as a variety of naturally occurring data in a cogent and elegant fashion, it can be suggested that it is preferable over previous ones.

This study is also an inquiry into the present perfect’s variation and change in registers, space and time. That the construction has an invariant, consistent meaning generalisable from diverse communicative settings should not be taken to deny the existence of extensive variation in its actual use. Variability is a universal and inherent feature of language; in the words of Weinreich, Labov, and Herzog (1968, p. 17):

The normal condition of the speech community is a heterogeneous one… Moreover this heterogeneity is an integral part of the linguistic economy of the community, necessary to satisfy the linguistic demands of every-day life.

It is a well-established observation in sociolinguistics that speakers choose different linguistic forms and alternate among these forms when expressing more or less the same meaning, and their choices pattern systematically across dialects and registers. The alternation between the present perfect and its main rival, the simple past tense, is a case in point. In Example (1), the two verb forms refer to the same state of affairs, in which the event of Kim eating apples occurred at some time during today and before the present.

---

2 ‘The simple past (tense)’ refers to verbs inflected for the past tense in English. Another term widely employed in the literature is ‘the preterite’.
(1) a. Kim has eaten three apples today.
   b. Kim ate three apples today.

Previous research has shown that for describing state of affairs of this type BrE speakers show a stronger preference for the present perfect in (1a), whereas their American counterparts are more likely to choose the simple past in (1b). Moreover, regional differences in speakers’ preferences have been suggested to be more prominent in casual spoken registers than in formal written ones (Elsness, 1997; Vanneck, 1958). While descriptively oriented English grammars often treat such variation as a mere fact of language use without committing themselves to underlying explanatory mechanisms, the vast majority of theoretically oriented, formalist accounts of the present perfect are simply not concerned with variation. Thus one of the goals of this study is to explore the extent to which a monosemous thesis coupled with pragmatic principles can accommodate the variation in the choice of the present perfect over the simple past. As I see it, such a thesis can be maintained if the variation in question is viewed as motivated by a functional similarity which is nevertheless generated by two distinct types of current relevance, one semantically asserted and the other pragmatically inferred. These two types of current relevance are in turn derived from two inherently different modes of communication, the former from encoding/decoding and the latter from pragmatic inference.

Apart from its opposition to the simple past, a considerable amount of attention in this study is given to variation in the present perfect’s distribution across registers. It has been claimed that grammatical differences across registers are more extensive than across dialects (Biber et al., 1999, p. 20), although the two are inextricably interconnected. In this study, exploration of register variation of the present perfect is facilitated by the use of a database comprised of a broad and diverse range of spoken and written registers. I show that a good deal of register variation can be traced to differences in the topics of the discourse in which the present perfect occurs. These topics affect the temporal properties of the situations described, as well as whether, and in what ways past situations are viewed as relevant to the present.

As alluded to above, another issue dealt with in this study is the present perfect’s variation across dialects. So far research on this topic has mainly focused on BrE and
AmE. A few scholars have reported its innovative use as a narrative tense in Australian English (‘AusE’), raising the possibility that the construction has undergone functional extension in this variety (Ritz, 2009; Ritz & Engel, 2008). To explore this possibility, this study conducts a systematic investigation based on multi-genre corpora of contemporary AusE, with special attention paid to its narrative use, and compares the findings with contemporary BrE and AmE. The inclusion of AusE in the picture also takes us one step further towards separating the ‘common core’ of the grammar shared by dialects of English, from aspects of the grammar that are subject to dialectal variation.

Synchronic variation in register and space is both the outcome and predictor of language change. A diachronic perspective in linguistic research is desirable since language is constantly undergoing change as it is used. The goal of linguistic research is to provide not only ‘snapshots’ of synchronic states of language, but also ‘motion pictures’ of how language is shaped by a set of changes that link these synchronic states. As Bybee et al. (1994, p. 3) note:

A diachronic dimension greatly increases the explanatory power of linguistic theory. Demonstrating that a given form or a construction has a certain function does not constitute an explanation for the existence of the form or construction; it must also be shown how that form of construction came to have that function.

The time period investigated in this study is the two and a half centuries extending from the mid-18th century to the end of the 20th century, a period which covers a great part of what is commonly known as Late Modern English and Contemporary English.3 Changes in the English language of this period are less well explored in comparison with those in Old and Middle English (Beal, 2006; Strang, 1970). Furthermore, within the limited number of existing accounts of this period, very little is said about the

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3 The classification of stages of English in this study follows the time divisions made in Hopper and Traugott (1993/2003):

<table>
<thead>
<tr>
<th>Stage of English</th>
<th>Time Period</th>
</tr>
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<tbody>
<tr>
<td>Old English</td>
<td>c. 600 – 1125</td>
</tr>
<tr>
<td>Middle English</td>
<td>c. 1125 – 1500</td>
</tr>
<tr>
<td>Early Modern English</td>
<td>c. 1500 – 1750</td>
</tr>
<tr>
<td>Late Modern English</td>
<td>c. 1750 – 1950</td>
</tr>
<tr>
<td>Contemporary English</td>
<td>c. 1950 – present</td>
</tr>
</tbody>
</table>
present perfect, giving the impression that the construction has remained invariant over centuries. However, as Elsness (1997) effectively demonstrates, there is evidence that the present perfect has been losing ground to the simple past tense since the mid-18\textsuperscript{th} century, particularly in AmE.

The present study takes on an important issue which did not receive sufficient attention in Elsness (1997): the functional basis of the present perfect’s (relative) frequency decline. By exploring a real time database of earlier BrE, AmE and AusE fiction, it reveals that what underlies the frequency decline is a subtle change in the nature of the current relevance, that is, a shift in the way in which a situation is presented as relevant to the present. A significant empirical finding of this study is that the present perfect’s grammaticalisation in Modern English is shaped not by undifferentiated substitution by the simple past, but by gradual loss and reinforcement of particular usage types. Although the three varieties often diverge from one another in terms of specific directions and rates of change, a common developmental trajectory, along which AmE is most advanced, clearly emerges from the corpus-based analysis.

Throughout this thesis I make extensive use of the conceptual tools and findings of both theoretically and descriptively oriented strands of linguistic research. My aim is to show that compared with introspection, rigorous inspection of naturally occurring data can sometimes better illuminate our understanding of certain problems that arise from introspective description and interpretation of linguistic facts. Conversely, generalisation and theorising based on introspection often provides a promising starting point for approaching complex patterns of linguistic variation. My analysis of the English present perfect can thus be seen as an attempt to bridge the long-standing gap between the two strands of research.

1.3 The data

The analysis put forward in this study is empirically motivated, the data containing both constructed and naturally occurring language samples. The general rationale is that a fully comprehensive, principled account of the English present perfect should be well-suited to the analysis of both types of data. The linguist’s intuition and the linguist’s corpus are not mutually exclusive: both should be regarded as legitimate
sources if we aim to address the full range of questions concerning the meaning, interpretation and use of the English present perfect.

The data come in three forms. The first is a collection of naturally occurring language samples of BrE, AmE and AusE, covering the time period from the mid-18th century to the present day. Some of these samples are selected from existing corpora of Contemporary and earlier English; others are compiled by myself. The second form of data is examples mentioned in the literature, which were, in the majority of cases, constructed by researchers for the purpose of explication and are a reflection of their own linguistic intuition. They are incorporated in this study because their analysis has been at the centre of existing discussions on the present perfect, especially those with a strong theoretical orientation. Finally, these two forms of data are supplemented by examples constructed by myself for the substantiation of certain arguments. It should be borne in mind that despite the reliance on constructed data, the primary focus of the analysis is on instances of language use in context, as opposed to linguistic competence abstracted from context.4

The main corpora consulted in this study are listed below along with their acronyms. Wherever examples from corpora are cited, the citation information (name of the corpora, text and/or line number, and so on) will be provided in square brackets.

ARCHER A Representative Corpus of Historical English Registers
BNC the British National Corpus
COCA the Corpus of Contemporary American English
COHA the Corpus of Historical American English
COOEE the Corpus of Oz Early English
GloWbE-AUS the Australian section of the Corpus of Global Web-based English
ICE the International Corpus of English

4 Unless specified otherwise, the term ‘context’ is used in this thesis as a psycholinguistic construct referring to the part of the interlocutors’ knowledge and beliefs that is activated in communication and interpretation. It is a subset of the interlocutor’s assumptions about the world (Blakemore, 1992, pp. 16-22; Sperber & Wilson, 1986/1995, pp. 15-16). Context in this sense should be distinguished from context in the purely linguistic sense, or more precisely, ‘co-text’, which refers to the immediate linguistic environment a particular structure occurs in (Lyons, 1995: 171).
1.4 The approach

In this section I outline several branches of linguistic inquiry that have informed this study. Unlike many previous accounts of the present perfect, this study does not pursue a single research framework or paradigm. Instead, it draws from interconnected subdisciplines of linguistics. This is largely determined by the nature of my data, which encompass quantitative and qualitative information, prototypical and marginal uses, not to mention wide variation in the type of linguistic environments and situational settings in which the present perfect occurs. As Davydova comments in her conclusion to an investigation of the present perfect in non-native Englishes, ‘different patterns of use may be in need of different explanations’ (2011, p. 306). An eclectic approach is therefore necessary.

The two frameworks which serve as the conceptual basis for this study are relevance theory and grammaticalisation theory. The former is the pragmatic theory developed by Dan Sperber and Deirdre Wilson in their 1986 book (Sperber & Wilson, 1986, second edition 1995) and made popular by scholars such as Blakemore (1987, 1992), Carston (1993, 2002), Carston and Uchida (1998), Yus (1998) and others. It shares Grice’s inferential view of communication, on which utterances do not encode the message that communicators intend to convey but provide evidence for the communicator’s intended meaning. Comprehension is achieved not by decoding the message but by inferring the intended meaning from linguistic and contextual clues. In Grice’s original proposal, such an inferential process presupposes the audience’s reliance on (and the communicator’s exploitation of) the Cooperative Principle, which consists of the maxims of Quantity, Quality, Relation and Manner. While neo-Gricean theorists have developed similar principles or maxims, such as the Q-, I- and M-Principles (Levinson, 2000) and the Principle of Least Effort (Horn, 1984, 2005), relevance theory emphasises the role of relevance in inferential communication. On this view, the audience-based comprehension process comes to an end at the first overall interpretation that satisfies the audience’s expectation of relevance. No other maxim is required. The relevance-theoretic view of cognition and communication will be the key to my analysis of the pragmatics of the present perfect.
Another major conceptual framework I draw from is grammaticalisation theory, a prominent type of explanation in historical linguistics and an important construct in typological linguistics. ‘Grammaticalisation’ is defined as ‘the process whereby lexical items and constructions come in certain linguistic environments to serve grammatical functions, and, once grammaticalised, continue to develop new grammatical functions’ (Hopper & Traugott, 1993/2003, p. xv). Scholars have discussed the role of pragmatic inference as a motivating factor in this process, suggesting that grammaticalisation can result from the ‘conventionalisation of invited inferences’ through pragmatic enrichment, a process which paves the way for the development of new meanings (Hopper & Traugott, 1993/2003; Traugott, 2011; Traugott & Dasher, 2002; Traugott & Heine, 1991). This dynamic, functional account of language change resulting from communicators’ negotiation of meaning is consistent with the inference-based account of communication advocated by relevance theorists. In this study, the two views will be integrated in the exploration of cognitive factors that drive the evolution of the English perfect.

The empirical component of this study draws substantially from the techniques of corpus linguistics and variationist sociolinguistics. The former branch of research provides a system of methods and principles for interrogating electronic corpora in the scientific study of language. Although the corpus linguistics approach is often distinguished from the introspection-based approach commonly adopted in philosophically-informed studies of semantics and pragmatics, the two approaches are not mutually exclusive. Recently, there even appear to be signs of rapprochement between the two fields (with particular reference to the perfect, see McFadden & Alexiadou, 2010; Nishiyama & Koenig, 2010). Between corpus linguistics and grammaticalisation research the connection has traditionally been stronger (Krug, 2000; Lindquist & Mair, 2004; Rissanen, Kytö, & Heikkonen, 1997). For scholars working on grammaticalisation, the large body of authentic language data in electronic corpora offers an empirical basis for in-depth observation of grammaticalisation processes occurring in real time and across different text types and genres. As we will see in the following chapters, corpus practices – the reliance on frequency data and the use of descriptive and inferential statistics in the assessment of salient linguistic patterns – complement and expand upon previous works on grammaticalisation based on only sketchy or partial documentation of language.
Like the three branches of linguistic research mentioned above, variationist sociolinguistics takes language use as its fundamental object of investigation. It shares with corpus linguistics such commitments as the primacy of authentic data, the focus on linguistic context as a part of the structure of grammar, and a strong empirical orientation as manifested in its engagement in operationalising and testing hypotheses. Notably, patterns of language use are modelled in the form of logistic regression, or ‘variable rule’ analysis (Cedergen & Sankoff, 1974). This type of analysis accounts for variation in speakers’ choice of linguistic forms as the product of contributing linguistic factors. When carried out within a longitudinal design, the variationist methodology is able to yield a detailed view of language change in progress, as has been illustrated by a number of previous studies on morphosyntactic forms (Aaron, 2010; Poplack & Dion, 2009; Poplack & Malvar, 2007; Torres Cacoullos, 2000). In the tradition of variationist sociolinguistics, this study conducts a series of regression analyses in order to determine the nature of variation in the choice of the present perfect over the simple past at different times, and across regional varieties. The results obtained therefrom will complement the results of a fine-grained distributional analysis, providing a comprehensive picture of the various linguistic factors at work.

1.5 Conceptual preliminaries

This section lays the foundation of the study by elaborating on the important general linguistic terminology that will be used in the following chapters. I first outline the definition of ‘tense’, with reference made to several key concepts in the description of temporal relations (Section 1.5.1). This is followed by a discussion of the treatment of the perfect within a Reichenbachian framework of tense (Reichenbach, 1947/1966) (Section 1.5.2). I then examine the terms ‘aspect’ and ‘situation type’ (Sections 1.5.3 and 1.5.4). Finally, I briefly discuss the sociolinguistic notions of ‘language’, ‘variety’ and ‘register’ (Section 1.5.5).

1.5.1 Tense

Natural languages are invariably equipped with a rich repertoire of linguistic devices that express locations in time – the past, present and future. Tense is the
‘grammaticalised expression of temporal location’ (Comrie, 1985, p. 9). To evaluate the temporal location of a situation we need a time point that is already known (or assumed to be known) by interlocutors. In most grammatical systems of the world, this point is coincidental with the time when the communicative event takes place, that is, the ‘deictic centre’, or what Huddleston (2002) calls the ‘deictic time’. Tense is essentially a deictic category in the sense that its interpretation – which hinges on the denotation of the deictic centre – is defined in context.

In ordinary face-to-face interaction the deictic time can be seen as the same for the communicator and the audience. In written or other modes of communication such as non-live TV broadcasts where there is a significant delay between the transmission and reception of information, the deictic time can be coextensive with the time of encoding or the time of decoding (Fillmore, 1971/1997). Consider the following sentences as they occur in a written notice received after the writer has left Sydney:

(2) a. I am leaving Sydney now.
   b. You now understand why I left Sydney.

The established time point with respect to which the location of the situation is evaluated is the time of encoding by the writer in (2a), and the time of decoding by the audience in (2b). Here the ‘current’ and the ‘shifted’ now are denotatively distinct; nevertheless, they instantiate an invariant concept, a metaphorical ‘present’ which serves as the ultimate origin of temporal relations that are grammatically represented. For this reason, such terms as ‘the present’ or ‘the present moment/time’ will also be employed in this thesis to express the notion of the deictic time. Distinguishing the times of encoding and decoding does not make a substantial difference to my arguments since grammatical systems normally assume that there is only one deictic time for interlocutors (Comrie, 1985, p. 16).

Another point to note is that tense in English is not always interpreted deictically. Consider Example (3):

5 ‘Situation’ is defined as the state of affairs described by the central elements of the clause. See Section 1.5.4.
6 For counterproposals to tense as deictic, see for example Abusch (1997) and Schulz (2008).
(3) You should tell me when you need help.

The situations described by the present-tense verb *need* can be interpreted as simultaneous with the situation referred to in the modalised main clause. The established point in this case is a speaker qualification of the state of affairs, comprising necessity. Non-deictic uses of tensed verbs are also featured in conditionals:

(4) a. If it rains, we have to stay at home.

   b. She would marry you if you were rich.

The present and past tenses in these examples (*rains* and *were*) can be taken to reflect the communicator’s judgment of the degree of likelihood of the situation, with (4a) expressing open possibility and (4b) expressing remote possibility. In many languages, this contrast is expressed by means of an inflectional mood system. I will not discuss tensed verbs in conditionals in this study as they are essentially concerned with the domain of modality, not temporality.⁷

Given this intuitive understanding of tense, I am now in a position to provide an informal characterisation of the basic meaning of tenses in English within an ontology of time shared by many influential descriptive grammars (Comrie, 1985; Huddleston, 2002; Quirk et al., 1985). On this view, time is represented as a straight line stretching endlessly from the past and into the future. The basic temporal units are time points with minimal temporal duration and are linearly ordered along the timeline. The present moment is a unique time point located on this timeline, separating the past from the future. The time of the situation can be either a time point (for punctual situations) or a time interval (for situations occupying a certain stretch of time). Time intervals are aggregations of time points. They have the property of durativity. The basic grammaticalised temporal distinction in English is between the past and the present: the

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⁷ Temporality and modality are seen as distinct semantic notions, following Comrie (1985). A grammatical category is viewed as having a basic meaning as well as a number of peripheral meanings. This explains why, in its most clear-cut, prototypical cases, tense expresses temporal locations but carries various degrees of modal meaning in others. I do not follow the radical view that temporality *is* modality as proposed in Jaszczolt (2009).
simple present tense expresses coincidence of the time of the situation with the present, and the simple past locates the time of the situation prior to the present.

Before we move on to consider the perfect within a Reichenbachian representation system of tense, it is necessary to clarify my position on a highly controversial issue: the case of a future tense in English. I will not treat future as a component of the English tense system for the following reasons: first, there is no separate grammatical form for future time reference in English. The use of the modal auxiliary will, which has traditionally been treated as a periphrastic future tense marker, overlaps significantly with the expression of modality. Furthermore, many apparent references to future time in English are not expressed by will, but by the present tense, as in *The game begins at three tomorrow* and *She is leaving Sydney*. I will not delve into this issue here; for previous discussions see Comrie (1985, pp. 43-47, 1989) and Huddleston (1995, 2002). I will simply take *will* + the perfect as a modal perfect with a futurate meaning.

1.5.2 The Reichenbachian theory of tenses

Having introduced the grammatical category of tense, a question we are faced with is how the present perfect might fit into the English tense system. As mentioned above, tense is the grammaticalised expression of the temporal location of a situation. While the existence of simple present and past tenses in English is without controversy, the treatment of the present perfect as a tense in its own right has long been a matter of debate, as its meaning is concerned with the present and the past at the same time. Treating it as a present tense is counterintuitive for the situation described pertains to the past; treating it as a past tense is similarly problematic as the simple past tense also describes past situations.

One way to deal with this difficulty within a present perfect-as-tense approach is found in the analysis of the English tense system proposed by Declerck (2006). On this analysis, temporal units on the timeline are classified as falling into either the ‘past time-sphere’ or the ‘present time-sphere’. The former consists of a single time-zone, whereas the latter can be seen as consisting of three individual time-zones, the ‘pre-present’, the ‘present’, and the ‘post-present’. The four time-zones correspond respectively to the simple past, the present perfect, the present and the futurate in
English. The present perfect is analysed as an ‘absolute tense’, one that locates the situation in the pre-present time zone, relating it directly to the deictic time.

An undesirable consequence of Declerck’s treatment is that a different label, ‘relative tense’, is assigned to non-present perfects. In comparison, a uniform analysis for present and non-present perfects is more convincing, since they are built by combining a common grammatical form (auxiliary + past participle) with other linguistic elements. The perfect in English is compatible with present and past tenses, with the auxiliary have inflected for tense. It can also combine with nonfinite verbs in -ing participial, to-infinitival and modal constructions, as shown in the following paradigm. These variant forms of the perfect share not only similarities in meaning but also a common historical origin.

(5) present perfect  have eaten
     pluperfect     had eaten
     -ing participial having eaten
     to-infinitival  to have eaten
     modal         would have eaten

Clearly, the question of whether the present perfect can be recognised as a tense eventually boils down to the kind of definition one prefers to operate with when using the term ‘tense’. If we see tense as relating the time of the situation to the deictic time only, then we inevitably come across Declerck’s difficulty, since non-present perfects do not relate to the deictic time. It follows that if we still wish to pursue the present perfect-as-tense approach and at the same time allow for a uniform analysis for present and non-present perfects, our understanding of tense must be extended. In this way we should be able to provide a set of conceptual tools that distinguish perfect from non-perfect forms on the one hand, and present from non-present forms on the other. Whether the present perfect is a tense becomes an issue of minor significance when the meanings of these various grammatical forms are precisely represented and distinguished from one another.
The analytical framework I adopt in this study is the compositional analysis of tense originally proposed by the philosopher Hans Reichenbach (Reichenbach, 1947/1966) and further developed by Klein (1992, 1994, 2009) and many others. On this analysis, temporal units constitute the basic theoretical constructs, and their different relationships constitute the meanings of various possible tenses. In other words, tenses are regarded as morphosyntactic realisations of different configurations of a finite set of basic temporal units. The basic intuition of the analysis is Jesperson’s (1924) observation that we need two layers of temporal divisions for the English pluperfect. Consider the following sentence:

(6) The rain had stopped when I emerged from the subway exit.

Here the time of the situation described by the pluperfect is evaluated against an intermediate time, the time when the speaker emerged from the subway exit, which itself is located prior to the present by virtue of the simple past tense. These temporal relations are presented in the following diagram:

![Diagram of temporal relations](image)
The notion of an intermediate time, or what is commonly called the ‘reference time’, enabled Reichenbach to come up with a unified semantic representation for the English perfect: the construction locates the time of the situation prior to a reference time, thereby expressing anteriority. In the case of the present perfect, the reference time coincides with the present moment. With non-present perfects, the reference time can be established by another situation in the discourse, as exemplified by (7):

(7) a. **Having opened** the windows onto the terrace, lit the fire, translated the motto, Meredith grinned and took down a little triplet of books bound together in old calfskin.
   [Brown N19 137]

   b. We seem **to have lost** the power to protest in depth.
   [FLOB F16 197]

In (7a), Meredith’s grinning and taking down of the books are preceded by the actions described by the -ing participial perfect (opening the windows, lighting the fire and translating the motto). In (7b), which is paraphraseable as ‘it appears to be the case that we lost the power to protest in depth’, the loss of power is prior to the time at which the inference expressed by *seem* is made. With modal perfects, the reference time is established by the speaker’s qualification of the state of affairs, with the anteriority meaning applying to either the situation described or the modality. Consider:

(8) a. “We want to find out who knew about it”, Pratt said. “Certain people **must have known** about it”.
   [Brown A09 60]

   b. Well it could have been worse: she **could have appointed** a woman.
   [Frown F42 182]

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8 The original terminology in Reichenbach (1947/1966) is ‘point of reference’.
In (8a) the time of the situation is prior to the present modality: ‘I am forced to conclude that certain people knew about it’. Here, the perfect have is semantically within the scope of the modal must. In (8b), the anteriority applies to the modality: ‘It would have been possible for her to appoint a woman’. The perfect have is not within the scope of the modal could that expresses root possibility (‘possible…for’) (see Huddleston, 2002, p. 203).

The characterisation of a common meaning shared by all perfects allows us to introduce a compositional system for representing various grammatical forms in English. In what follows I will treat the deictic time as a single time point on the timeline, symbolised by s. The reference time and the time of the situation are time points or intervals, symbolised respectively by r and e. Temporal relations are represented by < (anterior to) and = (coincidental with). Following Reichenbach (1947/1966), the semantics of simple tenses and tensed perfects in English are represented as:

\[
\begin{align*}
\text{present} & \quad e = r \land r = s \\
\text{simple past} & \quad e = r \land r < s \\
\text{present perfect} & \quad e < r \land r = s \\
\text{pluperfect} & \quad e < r \land r < s
\end{align*}
\]

On this analysis, simple tenses in English are concerned with the relationship between r and s, whereas the anteriority meaning of the perfect is reflected in e < r. The crucial difference between the present perfect and the simple past lies in the location of r. With the present perfect, r coincides with s, mediating between the past and the present. With the simple past, r is located in the past, detached from the present. In this way the semantics of simple tenses and perfects are distinguished from one another by a common set of conceptual tools.

In Chapter 3 I will develop an analysis of the English present perfect based on this representation system. For the sake of consistency, I will adhere to the original terminology of Reichenbach, using ‘tense’ to refer to the grammatical structures in (9). However, it follows clearly from Reichenbach’s analysis that the perfect is inherently
different from the simple tenses, and Huddleston’s (2002) notion of ‘secondary tense’ is perhaps a more appropriate term for the perfect.

Several clarifications need to be made here regarding the notion of reference time. First, the reference time established by verb tenses should be seen as a manifestation of the communicator’s temporal orientation or point of view, a vantage point from which the situation is seen (see Hamman, 1987). In describing a certain situation, communicators may choose to set their viewpoint on the present or the past, depending on their communicative needs. Consider the following example from Klein (1992):

(10) A: What did you notice when you checked the cellar?
    
    B: The door was open.

Suppose this conversation occurs in a legal cross-examination. B is required to make a claim about a limited time point or interval (the time when he/she checked the cellar), not about any other time prior to or after that interval. The time of the door being open may actually last longer, but this is not the communicator’s concern: the claim is constrained to the time which both A and B have in mind. Reference time is therefore ‘the time for which, on some occasion, a claim is made’, or ‘the time span to which the claim made on a given occasion is constrained’ (Klein, 1992, p. 535).

Another point to note is that a sentence can be seen to have multiple reference times, since temporal relations can be expressed in a number ways, by verb tenses, lexical items, and various elements in the discourse. In Example (10), the reference time established by the simple past coincides with that specified by the when-clause. Similarly, temporal adverbials such as yesterday, in 1990 and for three years also introduce reference times into the sentence. The issue of the relationship between two or more reference times in a sentence will be revisited in Section 4.1.2.

1.5.3 Aspect

In this section I briefly discuss the grammatical category of ‘aspect’ and its relation to the perfect. It has often been noted that, unlike tense, aspect is not concerned with the location of the time of the situation with respect to another time point and is therefore
not deictic. Rather, aspect is concerned with the ‘internal temporal constituency’ (Comrie, 1976), or ‘the internal temporal structure’ (Chung & Timberlake, 1985) of a situation. It provides information about the speaker’s focus, giving a full or partial presentation of the situation (Smith, 1991/1997, p. 2). In languages with a grammaticalised aspectual system, there is often an opposition between the ‘perfective aspect’, which focuses a situation in its entirety, including both initial and final endpoints, and the ‘imperfective aspect’, which focuses merely the internal stage of a situation, including neither initial nor final endpoint. This opposition is embodied in the formal contrasts between leyó and (él) leía in Spanish, il lut and il lisait in French, and lesse and leggeva in Italian. An example from English is the simple past vs the past progressive:

(11) a. Daniel walked to school.
   b. Daniel was walking to school.

The communicator in (11a) is presenting the situation in its entirety, including its beginning, middle and end stages. As such, the situation is interpreted by the audience as completed, one that has already reached its final endpoint. The communicator in (11b), by contrast, chooses to focus on an internal stage of a situation without committing him/herself to its potential completion. The situation is presented as in progress, or ongoing, from a past point of view. Progressiveness in English is a grammaticalised subcategory of imperfectivity.\(^9\)

The English perfect has sometimes been treated as a marker of perfective aspect (Biber et al., 1999; Quirk et al., 1985). However, given the above definition of aspect, we can see that its aspectual status is somewhat questionable. As has been said, the

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\(^9\) Defining aspect as the speaker’s focus in presenting a situation appears to imply that the notion of reference time can also be used to represent the meanings of aspects. This idea has been developed in detail in Klein (1992). According to his analysis, aspect is concerned with the relationship between the time of the situation \(e\) and a reference time \(r\). The perfective aspect says that \(r\) includes the end of the \(e\) and the beginning of time after \(e\), while the imperfective aspect says that \(r\) is properly included in \(e\). It is important to note that even though the same term is involved for analysing both tense and aspect, the reference time for aspect does not have to be the same as that for tense in a single sentence. For example, in the case of the perfect progressive, the perfect constituent expresses that \(e\) is prior to an \(r\), whereas the progressive constituent expresses \(e\) is properly included in an \(r\). Obviously these reference times cannot be the same.
English perfect expresses the temporal relation of anteriority: the situation is viewed retrospectively in relation to a time point or interval following the initial endpoint of the situation. The construction does not necessarily express completion. Consider, for example, (12), where the situation is interpreted as ongoing at the present moment, or the reference time.

(12) I have lived in Sydney for three years.

Furthermore, the English perfect does not stand in functional opposition to the progressive, since it can embed a progressive in its scope. Viewing the situation retrospectively is not contradictory to focusing on an internal stage of the situation, as shown in (13):

(13) Anna has been running.

For these reasons I will not treat the perfect as an aspect. Following Comrie (1976), I see English as a language without a consistent grammaticalised perfective/imperfective distinction of the type found in Romance and Slavic languages. The opposition between the progressive and the non-progressive in English is comparable to the imperfective/perfective distinction only in a limited sense – when stative verbs and habitual meaning are excluded. This is because the English progressive typically does not combine with stative verbs such as know (*I am knowing the answer, see the next section on situation types); nor is it capable of expressing the habitual meaning associated with imperfective aspect markers in other languages.

1.5.4 Situation type

In this section I outline an ontology of ‘situations’, a term I have used so far indiscriminately without specifying its nature. In a narrow sense, situation can refer to the state of affairs described by the combination of lexical contents of the subject, verb, objects and complements, i.e., what Quirk et al. (1985, p. 45) calls ‘central elements of
the clause’. Situation in a broad sense involves, in addition to these, the semantics of ‘peripheral’ or ‘optional’ elements of the clause, such as adverbials of various types. Adopting the broad sense of the term means all semantic content that is encoded in a clause is covered. To illustrate, Daniel walked his dog this morning expresses the situation of Daniel walking his dog in a narrow sense, and the situation of Daniel walking his dog this morning in a broad sense. Without further specification, I use the term situation in the narrow sense in the present study.10

It is also necessary to distinguish two types of situations when we talk of situations as unfolding in time, or in Gabbay and Moravcsik’s (1980) words, as ‘instantiations of temporal properties’. On one interpretation, a situation is the state of affairs expressed by the communicator as a reflection of his or her temporal viewpoint. On another, it is an actual state of affairs in objective reality, and exists irrespective of the perception of the communicator. The two types of situations should not be confused with one another. To illustrate, let us reconsider Example (10) in Section 1.5.2. As I have suggested, the door being open as the communicator’s perception (or what is presented as his or her perception), the time of the door being open is a particular time in the past. This does not mean the situation in the real world is constrained to this particular time: the door being open may actually last much longer. I will speak of the times in which the two types of situation hold or occur as ‘the time of the situation presented’ and ‘the time of the full situation’. The present study is crucially concerned with the former, which is the one that is linguistically relevant and which I have represented with e. The latter has less to do with the structure of language than with the actual state of affairs in the real world, hence with world knowledge.

A linguistically expressed situation has a certain property that is not affected by the viewpoint of the communicator. Consider the sentences Daniel went to school, Daniel was going to school and Daniel is going to school. As long as the discourse referents are identical, the sentences can be construed as representing the same goal-oriented action, which involves a change in the subject’s location in space, with its endpoint defined by the achievement of the goal. Thus a situation has an internal structure that remains invariant irrespective of whether its temporal location is preceded or followed by the

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10 See also the distinction between ‘basic-level’ and ‘derived-level’ situation types in Smith (1991/1997, pp. 17-19), and that between ‘simple situation template’ and ‘enriched situation template’ in Declerck (2006, pp. 40-41).
communicator’s location in time, or whether the focus is on its internal stage or its entirety. In the literature we can find various labels for this internal structure, for example, ‘Aktionsart’ (Binnick, 1991), ‘lexical aspect’ (Rothstein, 2004), ‘situation aspect’ (Smith, 1991/1997), ‘ontological aspect’ (Declerck, 2006) and ‘inherent meaning’ (Comrie, 1976). To avoid confusion with the notion of grammatical aspect, I use the term ‘situation type’ to describe the purely lexicalised, nongrammatical meaning of the central elements of a clause. The term ‘type’ is suggestive of an abstract, idealised situation representation without evoking particular actualised instances.

Situation types are traditionally classified by a defining set of semantic features, such as stativity, durativity, repetitivity, telicity, agentivity, and so on. Existing taxonomies of situation types differ with respect to which of these features is/are selected. In this study I will restrict my attention to two features relevant to the analysis, stativity and telicity. These two features underlie a number of taxonomies (Comrie, 1976; Kenny, 1963; Smith, 1991/1997; Vendler, 1967). The following diagram presents the correspondence between the feature values and situation types.

```
+ stative, − telic
states

− stative, + telic

− stative, − telic

non-states
events
activities
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I define a ‘state’, with the value of [+ stative], as a situation type conceived of as a single, undifferentiated existence which typically involves no internal changes or input of energy. A state is homogeneous in the sense that all its internal stages reflect the same state of affairs: if we take one segment out of the time of the situation in Daniel knew the answer, then the state of affairs within this segment is identical with that in the remaining time segment. In Langacker’s (1987, p. 259) words, ‘[a]ny subpart of [a state’s] duration […] is sufficient to instantiate the category’. Furthermore, no input of energy is needed for a state to obtain for an extended period of time. By contrast, non-stative situations are typically heterogeneous. They are normally conceived of as
consisting of a series of differentiated stages. In the case of Daniel ran slowly, each internal stage of the situation can be conceived of as different from its preceding and following stages. The duration of the situation is dependent on continuous input of energy; the situation will come to an end if there is no energy to facilitate the transition from one internal stage to another.

Non-stative situations can be further classified into two types based on their values of telicity. A telic situation is one that has a goal or a natural, semantically encoded final endpoint, beyond which the situation can no longer continue. While non-stative situations are either telic or atelic, states are always atelic. In this study I will refer to telic situations as ‘events’. The defining feature of an event is its final endpoint: if an event terminates before this point, it is simply not true that the event has occurred. Thus we cannot say Daniel walked to school if Daniel had set out and stopped halfway. Non-stative situations with no natural endpoints will be referred to as ‘activities’, for example, Daniel walked for two hours. Activities have the properties of dynamicity, durativity and atelicity (lacking telicity).11

It is important to conceptualise the above distinction between states, activities and events as an ontological distinction with linguistic implications. Features such as stativity and telicity are concepts that have become universally available through our experience of the world as we perceive and cognise it. Given the universal availability of these concepts in temporal understanding, it is only natural that they are encoded in the structure of language in various ways. A number of linguistic criteria have been offered in previous research to provide empirical ground for taxonomies of situations. While these criteria are successful in distinguishing situation types in some cases, they often fail to prove solid enough in accounting for a wide range of linguistic data. As I see it, this is because there is not always a one-to-one correlation between linguistic and conceptual structures. Here I will not focus on how individual linguistic tests may work; for previous discussions see Binnick (1991, pp. 173-178), Declerck (2006, pp. 49-65) and Verkuyl (1993). Nor will I attempt to devise new tests to classify situations in a more consistent fashion. What I suggest is that the three situation types that have been discussed so far – states, events and activities – are best seen as graded categories containing central and peripheral members. The degree of centrality can be

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11 See Binnick (1991, p. 181) for a similar typology of situations.
operationalised as the number of linguistic criteria that can be met by a given situation. For example, prototypical stative situations are those that meet all the criteria proposed in the literature for this situation type, for example, inability to occur in the imperative mood (*Know the answer!*), with progressive aspect (*Daniel is knowing the answer*), as complements of verbs such as force and persuade (*Sam forced Daniel to know the answer*), no habitual interpretation in the simple present tense (*Daniel knows the answer* (pertaining to the present)), and so forth. Similarly, prototypical events may occur as the complement of the verb finish (*Daniel finished painting a picture*), and may be modified by temporal in-adverbials (*Daniel painted a picture in an hour*) but not by temporal for-adverbials (*Daniel painted a picture for an hour*). Furthermore, with events, the perfective form (*Daniel painted a picture*) is true if and only if the corresponding imperfective form (*Daniel was painting a picture*) is true, but not vice versa. In any case, we should be prepared to allow for a certain level of indeterminacy and take into consideration the gradient nature of semantic categories and speaker variation in the perception of situations.

1.5.5 Language, dialect and register

In this section I elaborate on several key sociolinguistic notions which underpin this study. Specifically, I explain the interrelated notions of language, dialect and register.

To understand these notions it should first be kept in mind that the analysis we are about to embark on is underpinned by abstraction at various levels. There is little controversy over the fact that any language is prone to internal variation. We very rarely find two people speaking English exactly the same way, and even for the same speaker the choice of linguistic forms always varies in relation to communicative intentions and sociocultural settings. As Wardhaugh (2010, p. 23) puts it, ‘variation is a basic fact of linguistic life’. Furthermore, language is constantly changing. The structure of the English language today is obviously not the same as it was five centuries ago. Even within a short span of time such as a decade, new words and constructions emerge and existing ones develop subtle differences in meanings. ‘The English language’ as a homogeneous entity is a general abstraction over diverse linguistic patterns found in a wide range of geographical locations and at different points in time.
Abstraction can pertain to different levels of the conceptual hierarchy. At a higher level, we can identify a set of shared norms, a relatively stable group of form-meaning associations which make it possible to label a certain variety ‘English’ as opposed to French or Chinese; at a lower level, we can restrict our attention to subsets of linguistic norms that distinguish one regional variety or dialect from another, for example, what it is that makes a speaker of English sound distinctively British, as opposed to American or Indian. Such terms as ‘British English’, ‘American English’ and ‘Australian English’ are no more than convenient terms that reflect the level of abstraction on which we intend to base our linguistic description. These terms should not be taken to suggest that there is no dialectal variation within these varieties. A person who grew up in Central Lancashire may speak differently from a Londoner; even within a city there can be considerable dialect variation (for example, the Bronx and Brooklyn in New York city). But I choose not to investigate these internal regional differences in the present study. As Ferguson (1972, p. 30) notes, the target of empirical investigation does not need to be – and in fact can never be – completely homogeneous. It only needs to be sufficiently homogeneous to be analysed by the available techniques of synchronic and diachronic description.

Another point to clarify with regard to the data is that my main focus in this study is on ‘standard English’. Standard English is commonly described as any variety of English accepted as the national norm in a country where it is the major native language of the community. It is the variety normally employed in writing and spoken by educated speakers of the language, which forms the basis of reference grammars, spelling books and style guides, and which is taught to learners of English as a foreign or second language. As such, standard English embraces a continuum ranging from the very formal to the very informal (the formal vs informal distinction is sometimes reflected in the writing vs speech distinction). Speakers of standard English have available to them a repertoire of ‘registers’: they can be professional or casual, and can use technical jargons, slang expressions or swear words, depending on the needs of the social situation (see Stubbs, 1986, p. 87; Trudgill, 1999; Trudgill & Hannah, 2002, p. 1).12

12 The boundary between standard and nonstandard is not so clear-cut at times. While many English utterances can be straightforwardly classified (I haven’t seen those kids is standard, and I ain’t seen them kids is not) (Mesthrie, Swann, Deumert, & Leap, 2009, p. 22), some features – particularly those at the
My understanding of the notion of register embraces a much broader range of phenomena than it does for some scholars. For instance, Ferguson (1994) and Wardhaugh (2010) see register as an alternative expression for ‘jargon’, or linguistic items associated with specific professions, activities or social groups. These items may facilitate communication because of their recurrent nature in special contexts, and may also become a barrier for those who are not familiar with them. I will not adopt this view. Rather, I see register as the linguistic reflex of different types of social situations that people are commonly involved in. In other words, register covers the total range of language activities in society. In Hudson’s (1996, p. 46) words, ‘your dialect shows who (or what) you are, whilst your register shows what you are doing’. The analysis of registers is therefore not only concerned with linguistic structures, but also with the situational context, including the nature of the topic, the communicator’s intention, the relationship between the audience and the communicator, and the medium employed. This understanding is congruent with the Hallidayan approach to register (Halliday & Hasan, 1976; Halliday, Macintosh, & Strevens, 1964). Like dialectal or regional variation, register variation constitutes an important aspect of linguistic variation. A functional description of the lexical and grammatical features of a language is often partial without incorporating a register dimension.

Register is sometimes used interchangeably with ‘genre’ in this study. The two concepts overlap to a great extent: both focus on patterns of language use in social contexts. The main difference is that register is motivated by the situational context, whereas genre is often seen as a relatively stable set of linguistic conventions associated with a particular type of verbal activity, such as a university lecture or a weather report. Another relevant term is ‘style’, which relates to rhetoric and reflects a writer’s characteristic mode of expression (Biber & Conrad, 2009, p. 2). The three concepts, informal end of the stylistic continuum – are not readily definable. Consider the following sentences, with (have) got expressing the meaning ‘possess’:

a. He has a cat.
b. He has got a cat.
c. He’s got a cat.
d. He got a cat.

The first is undoubtedly standard. The second and the third are less acceptable for some prescriptivists. The fourth is undoubtedly very colloquial and arguably nonstandard. The example shows that ‘standardness’ can be thought of as a gradient notion, and that degrees of standardness are not so clearly detached from degrees of formality.
register, genre and style, are interrelated and provide different perspectives for the study of linguistic variation.

1.6 Thesis outline

The thesis is structured as follows. Chapter 2 is devoted to a critical review of existing accounts of the English present perfect’s semantics and pragmatics. I outline several well-known ‘puzzles’ concerning the construction, focusing mainly on evidence and views presented in formal semantics research. I then evaluate existing solutions offered by scholars ascribing different semantic structures to the construction.

Chapter 3 introduces my proposal. I first discuss several key semantic and pragmatic concepts within the context of relevance theory. These include the distinctions between encoding/decoding and inference, between ‘conceptual meaning’ and ‘procedural meaning’, between ‘explicature’ and ‘implicature’, and on top of these distinctions, the concept of optimal relevance. Building on these concepts, I formulate the English present perfect’s semantic structure and propose a discourse-pragmatic principle governing its interpretation and use in context.

Chapter 4 further develops the proposal by applying it to the explication of linguistic phenomena. Based on careful analysis of introspective and corpus data, I show that the proposal provides a principled account for the ‘puzzles’ discussed in Chapter 2. Furthermore, I show that the current discourse-pragmatic approach informed by relevance theory brings fresh insights into the underlying cognitive mechanism responsible for the present perfect’s variation in time and space. The analysis presented in this chapter serves as the conceptual basis for a substantial part of the comprehensive corpus analysis to follow.

The next two chapters extend the scope to a wider range of data. In Chapter 5, I examine the present perfect in several Contemporary English corpora, namely, the British, American and Australian components of the International Corpus of English (‘ICE-GB’, ‘ICE-US, and ‘ICE-AUS’), and the Santa Barbara Corpus of spoken American English (‘SBC’). Patterns of register and dialect variation are systematically investigated. Attention is given to the construction’s distribution and interpretation in discourse, as well as its interaction with various linguistic elements, such as temporal adverbials, situation type, negation and interrogation.
In Chapter 6 quantitative methods are again adopted to explore variation in the use of the present perfect since the Late Modern English period. I make use of a collection of fictional texts taken mainly from A Representative Corpus of Historical English Registers (‘ARCHER’). The texts represent the three regional varieties and are sampled for three fifty-year periods, 1750-99, 1850-99 and 1950-99. In addition to distributional analysis, I conduct a variable rule analysis to examine long-term changes in the linguistic constraints on the choice of the present perfect over the competing simple past.

Finally, Chapter 7 summarises the main arguments and findings of this study, pointing out possibilities for future research.
Chapter 2 Approaches to the English present perfect: Problems and solutions

This chapter surveys previous discussions on the semantics and pragmatics of the English present perfect. I first consider a series of interrelated phenomena which have traditionally created difficulties for a unified account of the construction’s semantics (Section 2.1 with subsections). These phenomena are typically discussed in studies of Contemporary English with a synchronic orientation, but their validity can be argued to remain unchallenged when we expand our focus to the extended time frame from Late Modern to Contemporary English. Several previous solutions to these difficulties are then considered (Section 2.2 with subsections). My aim is to illustrate their strengths and weaknesses in dealing with the given linguistic phenomena. This discussion will prepare us for my own proposal presented in Chapters 3 and 4.

2.1 The problems

2.1.1 Perfect interpretations

The distinction of several interpretations or ‘readings’ of the English present perfect is often associated with McCawley’s (1971) paper on temporal reference in English. His definitions are represented below as a point of departure for discussion (and not necessarily as the accepted definitions):

(i) The ‘continuative’, or ‘universal’ perfect, indicates that a state of affairs prevailed throughout some interval stretching from the past into the present:

(1) I have known Max since 1960.

(ii) The ‘experiential’, or existential perfect, indicates the existence of past events:

(2) I have read Principia Mathematica five times.

(iii) The ‘resultative’ perfect indicates that the direct effect of a past event still continues:
(3) I can’t come to your party tonight – I’ve caught the flu.

(iv) The ‘hot news’ perfect reports hot news:

(4) The Lakers have been defeated!

(adapted from McCawley, 1971, p. 104)

For non-present perfects the first three interpretations are also available. The hot news interpretation is generally not available (??The Lakers had been defeated! ??The Lakers will have been defeated!), because the semantics of non-present perfects are not compatible with a direct, close connection between the time of the situation and the present, which is necessary to derive the interpretation that the situation is presently newsworthy. While traditional grammars often refer to the first three interpretations as ‘meanings’ or ‘uses’ of the perfect without specifying the nature of the difference between them (see Jespersen, 1931; Kruisinga, 1931; Poutsma, 1928), McCawley was explicit in suggesting that the interpretations represent distinct senses of the same linguistic form. For him, the difference is sufficiently significant to qualify as a true (semantic) ambiguity.

Before we evaluate McCawley’s claim, it is necessary to consider in more detail the differences between the various interpretations. The discussion to follow is organised into two parts, focusing respectively on the distinctions between the continuative and non-continuative, and between the resultative and non-resultative. This allows us to cover McCawley’s first three perfect interpretations. I will not treat the hot news perfect as an independent category in this study for the hot news effect is clearly motivated by pragmatic considerations: what the communicator takes (and assumes the audience to take) as newsworthy is in essence a highly subjective matter and varies drastically across contexts. For an elaborate analysis of the hot news perfect per se see Schwenter (1994).
2.1.1.1 Continuative vs non-continuative

The continuative/non-continuative distinction is often seen as the most basic distinction because the continuative interpretation is unique to the present perfect, but not the simple past and other tenses (Huddleston, 2002, p. 141). The key difference between a continuative perfect and a non-continuative perfect is that the former describes a situation continuing at the deictic time, or the present, whereas the latter describes a situation that has terminated before the present.

An important set of facts related to the distinction concerns the contribution of situation types. It has been suggested that, in non-progressives, the continuative interpretation is only possible with atelic situations (Bauer, 1970; Huddleston, 2002, pp. 141-142; Rothstein, 2008, p. 151). This includes states (where the present state of affairs is identical to every internal stage of the situation), as in Example (1a) above, as well as activities, as in Example (5):

(5) For centuries men have fought for the Church, died for it, loved it, or hated it.  
[BNC A68 1182]

Here a continuative interpretation is definitely possible, although it is not as salient as in (1). This is arguably because the present state of affairs, which is confined to a single time point, cannot be identical to every internal stage of a heterogeneous situation. Nevertheless, since the situation does not have an internal endpoint, it is still possible for interlocutors to conceive of the present moment as belonging to an extended event time, which yields the continuative interpretation.

Also consistent with the continuative interpretation are present perfects in the progressive form. Consider (6):

(6) Human beings have been munching apples since prehistoric times.  
[BNC HH3 12516]
The default interpretation for (6) is the continuative interpretation. The dynamic situation *human beings munch apples* acquires a stative character from the progressive auxiliary *be*. The progressive aspect, as Langacker (1999) suggests, has a ‘zoom in’ effect: the approximation to an internal stage of the situation leads to a point where the entirety of the situation is no longer visible to the speaker and the focus is constrained to an undifferentiated, homogeneous stage. The situation is presented as stative in that no distinction is made for the state of affairs within this focused internal stage (see also Michaelis, 2011).

Furthermore, if we adopt a less strict understanding of the notion of situation, taking the situation in negative perfects to be the nonexistence of a certain state of affairs, then negative perfects can be suggested to be continuative by default. As Example (7) shows, negation is valid for the present moment irrespective of situation type:

(7) State
   a. But multiple-aspect signaling has not been (nor ever will be) universal.
      [BNC A11 65]
   Activity
   b. Henry has not worked in the Model Shop.
      [BNC B7H 1184]
   Event
   c. And the prisoners themselves know that they are not alone, that the world has not forgotten them.
      [BNC A03 369]

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1 A slightly different characterisation of possible linguistic environments for the continuative reading is given in Portner (2003, 2011). He suggests that the continuative is only possible in English with perfects built out of stative predicates; stativity in his view includes individual-level predicates, or those that are true throughout the existence of the subject (e.g. *be smart, speak French*), copular sentences and progressives, and excludes (non-progressive) stage-level predicates, or those that are true of a temporal stage for the subject (e.g. *love, hate*) (see Carlson, 1977). This characterisation does not take into account the availability of the continuative reading in (5), which has non-progressive stage-level predicates (*fight for the Church, die for it, love it, or hate it*).
This obviously has to do with the ‘stativising effect’ commonly attributed to negation (Dowty, 1979; Krifka, 1989; Parsons, 1990).

What is not compatible with the continuative interpretation is a positive, non-progressive present perfect occurring with an eventive predicate. Events, by themselves, do not invite a continuative interpretation, as illustrated by (8):

(8) More than a hundred years have passed since Morelli started writing.

[BNC A04 968]

The situation is understood to have terminated before the present. This is because the former has a natural final endpoint by definition, and the interpretation of a situation ongoing at present is inconsistent with the interpretation that it has reached this final endpoint.

Another well-noted factor underlying the continuative/non-continuative distinction is the presence of certain temporal adverbials. Many have pointed out that a continuative interpretation is triggered by such temporal adverbials as since 1960, for five years and always, all of which invoke a time interval beginning from the past and potentially extending to the present (Huddleston, 2002; Iatridou, Anagnostopoulou, & Izvorsky, 2003; Portner, 2003). Unmodified perfects typically have a non-continuative interpretation. Consider the following examples adapted from Portner (2003):

(9) a. Anna has lived in London since 1960.
    b. Anna has lived in London for five years.
    c. Anna has always lived in London.
    d. Anna has lived in London.

Out of context, Examples (9a)-(9c) invariably invite continuative interpretations. By contrast, the default interpretation for (9d) is that the time of the situation pertains to the past, not the present. Nonetheless, it appears that there is no clear one-to-one correspondence between a continuative interpretation and temporal specification. With
some examples, scholars disagree on whether the interpretation is continuative or not. For example, Nishiyama and Koenig (2004) report that their informants judge the sentence *Daniel has been sick* as compatible with a continuative interpretation, even though the perfect is not temporally modified. Also problematic is the perfect progressive. Vlach (1993) suggests that the perfect progressive has a continuative interpretation in the absence of temporal adverbials. Similarly, Declerck (2006, p. 237) claims that for an unmodified perfect progressive as that in Example (10), the continuative interpretation is the default interpretation:

(10) Anna has been supplying Daniel with heroin.

Despite the above contradictory descriptions, there is a general consensus among scholars that temporal specification does play an important role in the derivation of continuative perfects.

The undeniable contribution of verb semantics and temporal specification has led some scholars to suggest an ‘interaction-based’ account for the continuative/non-continuative distinction. On this view, the English present perfect has a single, uniform meaning, and the different interpretations arise from the combined effects of this meaning and the semantics of other linguistic elements in the sentence. Explicit proponents of this view include Pancheva (2003), Portner (2003), Rothstein (2008) and Zydatiß (1978). Alternatively, there is a polysemous account, which suggests that the present perfect itself is inherently polysemous. This explanation is intuitively less appealing, for in semantic analysis we normally accept the null hypothesis that one form corresponds to one meaning unless there is sufficient evidence to prove the alternative hypothesis is correct. Nevertheless, the polysemous account is not without supporters (Kiparsky, 2002; Michaelis, 1994; Mittwoch, 1988; von Stechow, 2001).

Both interaction-based and polysemous accounts see the interpretation of the perfect as ultimately determined by the compositional semantics of the sentence, and for this reason I will refer to them as representing a ‘semantic approach’. This contrasts with the ‘pragmatic approach’ adopted by Bauer (1970), Fenn (1987), Inoue (1978), Klein (1992), McCoard (1978), and Nishiyama and Koenig (2010), who share the view
that semantics alone is insufficient to determine the perfect’s interpretation and that pragmatics has to be involved.

2.1.1.2 Resultative vs non-resultative

In this section I look at another oft-discussed distinction, that between resultative and non-resultative perfects. As with the case of the continuative/non-continuative distinction, opinions divide as to whether resultativeness follows from the compositional semantics of the perfect sentence alone or from a combination of semantic and pragmatic factors. Among proponents of the semantic approach, scholars such as Brugger (1998), Kiparsky (2002) and Michaelis (1994) suggest that resultative and non-resultative perfects have distinct semantic representations; others assign a uniform semantics to the perfect and allow the interpretations to be derived from different feature specifications of sentential elements, for example, viewpoint aspect in Pancheva (2003) and situation type in Rothstein (2008). For those who adopt the pragmatic approach, resultativeness is not a part of the inherent meaning of the perfect (Depraetere, 1998; Huddleston, 2002; Klein, 1992; Nishiyama & Koenig, 2010).

At the centre of the debate is the nature of the perfect’s resultativeness. Intuitively, a resultative present perfect describes the continuation of the result of a past situation at present, while a non-resultative does not. However, the distinction is much more complex if we examine the notion of result in more detail. I will discuss three types of result found in the literature on the perfect. The first is ‘implicated result’. This is a subset of conversational implicatures as defined by Grice (1967), where what is said and what is implicated are bound together by a causal relation.² Consider, for example, the resultative perfect in McCawley (1971):

(11) I’ve caught the flu (so I can’t come to your party tonight).

² Not all conversational implicatures are the result of what is said. In the following context, the conversational implicature, The garage is open, does not form a causal relationship with B’s utterance.

A: I’m out of petrol.
B: There is a garage around the corner. (Implicature: The garage is open.)
Here the past event *I catch the flu* has an implicated result, namely, *I can’t come to your party tonight*. This result is not explicitly expressed but is implicated by the present perfect utterance. It is determined by features of the communicative setting and is recovered on the basis of Gricean pragmatic principles. As an implicature, it is reinforcible and cancellable. As Example (11) shows, the implicated result can be reinforced by conjoining the first clause with the second clause. Cancellability can be seen from (13):

(13) I have caught the flu, but I can come to the party tonight if you want me to.

Because of their pragmatic nature, implicated results are not unique to resultative perfects. Any perfect – and indeed any utterance – can have an implicated result given enough contextual information. Consider McCawley’s non-resultative perfects in the following contexts:

(14)a. I have known Max since 1960. \(\Rightarrow\) I can’t believe he’s gay.

b. I have read *Principia Mathematica* five times. \(\Rightarrow\) I know it like the back of my hand.

In all three cases the sentence after the arrow is an implicated result of the situation described by the present perfect. It thus appears that resultative perfects cannot be defined by their capacity to yield implicated results.

The second and third types of result are what I call ‘permanent-state result’ and ‘target-state result’. This distinction can be traced to Parsons (1990, pp. 234-235), in which he argues for the importance of distinguishing the ‘resultant state’ of an event from its ‘target state’:

For every event *e* that culminates, there is a corresponding state that holds forever after. This is “the state of *e*’s having culminated,” which I call the “Resultant-state of *e*,” or “*e*’s R-state.” If Mary eats lunch, then there is a state that holds forever
after: The state of Mary’s having eaten lunch. … It is important not to identify the Resultant-state of an event with its “target” state. If I throw a ball onto the roof, the target state of this event is the ball’s being on the roof, a state that may or may not last for a long time. What I am calling the Resultant-state is different; it is the state of my having thrown the ball onto the roof, and it is a state that cannot cease holding at some later time.”

Applying this distinction to the resultative perfect, we may say that the sentence I’ve caught the flu has on the one hand, a permanent-state result (the state of my having caught the flu), and on the other, a target-state result (the state of my having the flu). The two types of results differ from implicated results in that they are entailed by the event description and are non-cancellable. Permanent-state results are non-cancellable for they will hold forever as soon as the event has occurred (or ‘culminated’, in Parsons’s term). Target-state results are also non-cancellable: whatever the circumstance is, the event of my catching the flu must always temporally precede the state I have the flu, irrespective of the duration of the state. If there is no state of my having the flu, then it is not possible to say that I have caught the flu.

Apparently, the notion of permanent-state result is again not an ideal candidate for describing the resultativeness of the perfect. It follows from Parsons’ definition that non-resultative perfects also have permanent-state results as long as the situation type is telic. For example, the experiential I have read Principia Mathematica five times entails a permanent-state of my having read Principia Mathematica five times. In comparison, the notion of target-state result is more intuitively appealing. In Section 4.1.1.2, I will make use of this notion to provide a more comprehensive description of resultative perfects.\(^3\)

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\(^3\) In the literature on the perfect there is another interpretation of target state, suggested in the works of Kratzer (1994), Pancheva (2003) and Rothstein (2008). On this interpretation, saying that a situation has a target state is equivalent to saying that the situation is telic. As Kratzer (1994) argues, a target state is engendered as soon as the situation reaches its inherent endpoint, or ‘telos’. Compared with Parson’s original proposal, this interpretation encompasses a much wider range of situation types. However, it does not account for the difference between Examples (2) and (3): the situation in I have read Principia Mathematica five times is also telic but the reading is clearly experiential.
2.1.3 Summary

To sum up the discussion so far, we have seen that the interpretation of the perfect is influenced by various linguistic factors, including situation type, progressive aspect, negation and temporal adverbials. Previous accounts of the issue fall into two main approaches. On the semantic approach, the interpretation is determined at a representational level, either by the semantic structure of the present perfect itself or by the compositional semantics of the sentence. On the pragmatic approach, semantics alone is insufficient to determine the interpretation and pragmatics has to be involved. Additionally, we have seen that terminological inconsistencies have made it somewhat difficult to draw the resultative/non-resultative distinction.

2.1.2 Co-occurrence with temporal specifiers

I now turn to one of the most intriguing and oft-discussed properties of the English present perfect: its co-occurrence capacity with temporal specifiers. I first provide a ‘standard’ description of the problem as presented in the vast majority of recent works on the present perfect (especially those with a strong theoretical orientation). This description, which captures the most typical, unmarked co-occurrence patterns, can also be found in English grammar books, usage guides and textbooks for language teaching purposes. I then examine certain aspects of language use representing atypical and marked co-occurrence patterns. These linguistic facts are often ignored in theoretically-oriented discussions but are equally indispensable to a good understanding of the present perfect.

2.1.2.1 The standard picture

In his influential paper on what he calls the ‘present perfect puzzle’, Klein (1992) discussed the well-known incompatibility of the English present perfect with such temporal adverbials as yesterday, last year and some ten years ago.

(15)a. ??Chris has left York yesterday.
    b. ??Chris has left York last year.
The standard view is that the constraint on temporal specification is unique to the present perfect. Non-present perfects, or past, modal and -ing participial perfects, do not behave in the same way:

(16)a. Chris had left York some ten years ago.
   b. Chris could have left York last year.
   c. Having left York yesterday, Chris is on his way to London.

The contrast between the present and non-present perfects in their capacity to combine with adverbials of the type in (16) has been found to vary across languages that have similar constructions. Present perfects in English, Spanish and Swedish pattern similarly and are different from those in languages such as French, German and Dutch (Swart, 2007; Rothstein, 2008; Schaden, 2009).\(^4\) The following examples illustrate the lack of the temporal specification constraint on the French passé composé:

(17)a. Chris est parti de York hier.
         Chris has left York yesterday.
   b. Chris est parti de York l’année dernière.
         Chris has left York last year.

(18)a. Chris était parti de York quand je suis arrivée.
         Chris had left York when I arrived.
   b. Chris aurait pu être parti de York l’année dernière.

\(^4\) Note that ‘the present perfect’ is used here as formal term – to refer to constructions containing an auxiliary (normally semantic equivalents to have or be) plus a past participle across various Indo-European languages. These constructions do not necessarily have the same meaning as the English present perfect; nor are they necessarily concerned with the present time.
Chris could have left York last year.

c. Étant parti de York hier, Chris est en route pour Londres.

Having left York yesterday, Chris is on his way to London.

One way to characterise the existence of this constraint in English is the so-called ‘extended-now’ account (Dowty, 1979; Elsness, 1997; McCoard, 1978; Rothstein, 2008), which I will further discuss in Section 2.2.2. To briefly explain, according to this account, the temporal denotation of adverbials co-occurring with the English present perfect is associated with an interval extending from the past to the present, whereas adverbials co-occurring with the simple past denote a past time disconnected from the present. These two types of adverbials are referred to by McCoard (1978) as ‘–THEN’ and ‘+THEN’ adverbials respectively. In addition, there are adverbials whose denotation can be interpreted as either connected or disconnected to the present. These adverbials are compatible with both the present perfect and the simple past, and can thus be analysed as ‘±THEN’. Below is McCoard’s (1978, p. 135) summary of the three types of adverbials. I will use the terms –THEN, +THEN and ±THEN later in my discussion of the problem in Section 4.1.2.

<table>
<thead>
<tr>
<th>–THEN</th>
<th>±THEN</th>
<th>+THEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>at present</td>
<td>long since</td>
<td>long ago</td>
</tr>
<tr>
<td>up till now</td>
<td>in the past</td>
<td>five years ago</td>
</tr>
<tr>
<td>so far</td>
<td>once [=one time]</td>
<td>once [=formerly]</td>
</tr>
<tr>
<td>as yet</td>
<td>today</td>
<td>yesterday</td>
</tr>
<tr>
<td>not yet</td>
<td>in my life</td>
<td>the other day</td>
</tr>
<tr>
<td>during these five years past</td>
<td>for three years</td>
<td>those days</td>
</tr>
<tr>
<td>herewith</td>
<td>recently</td>
<td>last night</td>
</tr>
<tr>
<td>lately</td>
<td>just (now)</td>
<td>in 1900</td>
</tr>
<tr>
<td>since the war</td>
<td>often</td>
<td>at 3:00</td>
</tr>
</tbody>
</table>
2.1.2.2 The alternative picture

The co-occurrence patterns presented by extended-now accounts are obviously highly typical in English. Nevertheless, the constraint on +THEN adverbials with present perfects is by no means categorical. ‘Violations’ have been attested by a number of studies. Examples (19a) and (19b) were found by Rastall (1999) in his collection of BBC news broadcasts. Examples (19c) and (19d), reported by Hundt and Smith (2009), are from the Longman Corpus of Spoken American English. Examples (19e) and (19f), from Engel and Ritz (2000), occurred in Australian radio talk shows:

(19a). There isn’t the employment protection we have created in the 1950s.
   b. We have flown in the Alps last month
   c. …so we’ve talked about some of those instances yesterday.
   d. I haven’t worked yesterday.
   e. Police confirm that at 16:30 hours yesterday the body of Ivan Jepp has been located.
   f. After the collision, the vehicle has sped off.

In line with the findings of these studies, a brief investigation of the BNC, COCA and GloWbE-AUS evidences occasional co-occurrences of +THEN adverbials with the present perfect in the three varieties. Consider the following:
(20)a. New black immigration has long ago been stopped, but any black man or woman who wants to bring dependents over, or be visited by relatives from home, is now afraid of what these people will have to suffer.
[BNC A6V 1584]

b. She has some time ago shut off those aspects of her life spent pursuing the opposite sex.
[COCA Fiction Jerry Maguire]

c. I have been thinking over your suggestion the other day.
[BNC J10 4099]

d. Mick has worked in the Philippines many years ago, as a seismic tester in the exploration and exploitation of minerals.
[GloWbE-AUS http://www.treatyrepublic.net/theothersideofthecoin/index.htm]

e. I mean, it should be a state that George Bush has won two weeks ago.
[COCA Spoken CNN LiveSat]

Notably, the investigation shows that not all of these uses can be explained as performance inconsistency resulted from online production, as suggested by scholars such as Hundt and Smith (2009), and Quirk et al. (1985, p. 195). A performance inconsistency account is plausible for (20e), which occurred in speech, but is not very convincing for the ones found in published and written sources: (23a) is from academic writing, (23b) from a movie script, (23c) from fictional prose, and (23d) is from a historical narrative published on the Internet. These utterances were produced by speakers of these varieties of English who had sufficient time for planning.

Acknowledging the attested nature of the co-occurrence raises the further question of its range of use. Interestingly, I found some contradictory descriptions in the literature on this issue. Regarding the +THEN adverbial long ago, Jespersen (1931) and Visser (1973) gave the following statements:

Just now, long ago, a short time ago, only a few days ago are usually, but not always, found with the preterit[e]. (Jespersen, 1931, p. 63)
The present perfect is generally preferred to the preterite [...] when there is a temporal adjunct in the sentence which does not clearly refer to a definite point of time but rather to a certain space of time, such as ‘long ago’, ‘in my youth’, ‘before this time’, ‘once’, ‘often’, ‘ere now’, ‘recently’, ‘formerly’, etc. (Visser, 1973, p. 2193, italics in the original)

I suggest that the disagreeing accounts above can be viewed in light of attested dialectal variation in speakers’ acceptance of the co-occurrence patterns in question. Elsness (1997) conducted an elicitation test asking speakers of BrE and AmE to judge the acceptability of the present perfect and the simple past combining with a series of temporal adverbials. His results show that when co-occurring with long ago, British informants find the present perfect more acceptable than their American counterparts, although the preferred verb choice is the simple past. Similarly, the simple past sounds more acceptable with adverbs such as already, yet and just for the American informants than for the British, although the preferred choice is still the present perfect. In every case, the difference between the two groups of informants is statistically significant. It is therefore not unlikely that some of the inconsistent accounts in the literature are reflective of regional variation in speakers’ acceptance of certain co-occurrence patterns.

The sundry findings that I have examined so far invariably point to the inadequacy of a standard categorical view of temporal specification for the present perfect and the simple past. The corpus examples clearly illustrate its probabilistic nature, which ties in with a bigger picture of variation where speakers of different varieties of English exhibit different degrees of acceptance of the same co-occurrence pattern. Thus an account of the English present perfect should be able to address (a) the strong constraint on +THEN adverbials and deviations therefrom, as well as (b) regional variation in the degree of acceptance of certain co-occurrence patterns.

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5 Elsness (2009a) also examined the acceptability of verb forms co-occurring with these adverbials for speakers of AusE. However, the results are not directly comparable with those in his previous research.
2.1.3  Present existence

I now turn to the third set of linguistic facts, which gives the impression that the felicity of the use of the present perfect is contingent on the present existence of one of the discourse referents, a phenomenon sometimes referred to as the ‘lifetime effect’ (Portner, 2003, 2011). Consider, first, Example (21):

(21)a. My parents have always been champions of civil rights.
   b. My parents were always champions of civil rights.

   (Donaldson, 1973)

(21a) yields the interpretation that my parents are alive at present, while (21b) suggests the opposite. The two sentences would sound odd if they were used in each other’s discourse context. It is therefore reasonable to extrapolate that the referent of the subject of the present perfect sentence is typically one that is alive or existent at present; if not, the simple past would be the preferred verb form. The requirement of present existence explains the oddity of a number of perfect examples concerning deceased famous personages found in the literature:

(22)a. ?? Frege has been frightened by many people.
     (McCawley, 1971)
   b. ?? Einstein has visited Princeton.
     (Chomsky, 1971)
   c. ?? Gutenberg has discovered the art of printing.
     (McCoard, 1978)

Interestingly, however, the requirement does not apply in all cases. Both (23a) and (23b) have a deceased subject but are perfectly acceptable.

(23)a. Frege has contributed a lot to my thinking.
b. Shakespeare has written some of the best lyrical literary works ever to have been written.

On the other hand, there are cases where the referents of the subject are presently alive or existent, but the sentences are interpreted as odd out of context:

(24)a. ?? Barrack Obama has been born in the U.S.

b. ?? America has been discovered by Columbus.

It thus appears that the properties of the past situation have a certain impact on the temporal viewpoint we normally adopt when talking about it. In some cases the present viewpoint is preferable, hence the use of the present perfect; in others the past, hence the simple past. As suggested by scholars such as Inoue (1979) and Portner (2003), at issue here is the nature of the English present perfect’s current relevance, a notion which has traditionally been seen as an important part of its meaning (Comrie, 1976, pp. 55-58; Leech, 1971, pp. 30-35; Quirk et al., 1985, p. 192; Twaddell, 1968, p. 8). According to this line of thinking, the situations in problematic sentences have in common a lack of current relevance. For example, Frege being frightened by many people is something pertaining only to the past and is not relevant to the present, but Frege contributing to my thinking is clearly connected to the present through the present existence of my thinking.

Intuitively a current-relevance account is very appealing. However, some further qualification is needed because past situations like the birth of Barack Obama and the discovery of America certainly affect the world in some way but still sound odd in the present perfect. In the same vein Maurice (1935, p. 323) comments:

The world war [WWI] is over; it lies completely in the past; but can anyone deny that its results are still felt as present? And yet we cannot say: “The war that has taken place in 1914-1918.” (as cited in McCoard, 1978, p. 44)
The question is then, to what do we expect the situation described by the present perfect to be relevant, and what constitutes such relevance? This question will be explored in detail in my own analysis. One important factor that needs to be considered is information already given in the discourse. Regarding the Einstein example, Inoue (1979) suggests the sentence may sound more acceptable in a context where people are talking about who, among the Nobel Prize winners, has visited Princeton. The communicator, on listing such figures that he/she knows, may say:

(25) Let’s see, Einstein has (visited Princeton), Yukawa has, Friedman has,…

The increased felicity is also associated with its stress pattern. In (26), the stress is on Einstein, not Princeton. This corresponds with the well-known observation that converting the sentence to passive voice improves its felicity:

(26) Princeton has been visited by Einstein.

Passivisation causes the sentence stress to be placed on Einstein, not Princeton, in its most natural interpretation. The discourse context could be one where the communicator is talking about Princeton’s capacity to attract Nobel Prize winners (*Princeton has been visited by Einstein, Yukawa, Friedman and many others*). Since stress is closely related to the ‘focus’ or ‘new information’ of the sentence, we would expect an analysis of the present perfect’s current relevance to incorporate an information-structure perspective. Crucially, the analysis should be able to explain the interaction between the interpretation of the present perfect and information structure not only at the level of individual sentences, but also at the level of the broader discourse.

2.2 The solutions

In this section I survey several solutions to the problems that I have so far identified. In line with the convention in the literature, I categorise existing accounts of the English
perfect into ‘indefinite-past’, ‘extended-now’ and ‘perfect-state’ accounts based on their most prominent features. Given the huge body of research in this area, it is unrealistic to explore the details of each particular proposal. Instead, I will organise the discussion in a way that prepares for my own analysis, presenting arguments and concepts that are relevant to my views. For a more comprehensive state-of-the-art survey of the relevant semantics literature, the reader is referred to Portner (2011).

2.2.1 Indefinite-past accounts

Indefinite-past accounts share the idea that ‘the present perfect locates events somewhere before the moment of coding, but without pointing to any particular occasion or subpart of the past’ (McCoard, 1978, p. 75). In other words, the present perfect makes reference to an indefinite past time. The concept of ‘definiteness’ is traditionally used in the analysis of noun phrases in English, for example, to explain the difference between the cat on the mat and a cat on the mat. In the recent literature (Lambrecht, 1994; Lyons, 1999), definiteness is considered synonymous with ‘identifiability’ (or recoverability), or whether a referent can be represented in the minds of the interlocutors at the time of the speech event. The cat on the mat is a definite description in that interlocutors are assumed to be able to identify or recover its referent on the basis of the preceding discourse or pragmatic knowledge. The parallel between definite temporal reference (denoted by verb inflection) and definite nominal reference has been noted in previous works such as Allen (1966), Leech (1969) and Michaelis (1994).

Klein’s (1992) analysis of the present perfect is perhaps the most influential and oft-criticised exemplar of indefinite-past accounts. His treatment of the perfect also draws from Reichenbach (1947/1966). To account for the constraint on +THEN adverbials such as yesterday, Klein proposed a pragmatic principle called the ‘p(osition)-definiteness constraint’. A p-definite expression, in his view, is one that fixes a definite position on the temporal axis. In the case of the English present tense, the position of r is fixed onto a definite position on the temporal axis because it coincides with the deictic time s, which is itself definite. The past and future tense morphemes are not p-definite, because they cannot fix the position of r to s. The p-definiteness constraint requires that the expressions of r and e cannot both be
independently p-definite in an utterance. This can rule out the sentences such as Chris has left the office yesterday, since both \( r \) (which is fixed to the definite \( s \)) and the expression of \( e \) (yesterday) are definite.

Klein’s p-definiteness constraint has two major problems. The first is that temporal adverbials such as yesterday and in 1990 are not really position-definite: they do not express the exact time of the situation, but only locate the time of the situation within a definite time frame (McCoard, 1978). I went downtown yesterday does not mean that the time of my going downtown spans the whole set of times constituting yesterday. Instead, it expresses I went downtown sometime during yesterday. The second problem has to do with adverbials of the type since 2000, which express the time of the situation in continuative perfects such as she has been sick since 2000. Given the widely accepted notion of definiteness, these adverbials should be interpreted as denoting definite time spans, as the time between the year 2000 and the present is clearly a recoverable time. It is therefore difficult to maintain that the present perfect is restricted to making reference only to indefinite times.6

The problem with the concept of p-definiteness has prompted linguists to seek alternative conceptual tools. Rothstein (2008) argues that the constraint is rather on ‘position-specific’ adverbials, which denote specific positions on the temporal axis relative to \( s \). According to Rothstein, position-specific adverbials can be identified using the when exactly test: they provide possible answers to the question when exactly, satisfying the degree of information asked for. However, as (27) shows, although the test can predict the constraint on adverbials such as long ago and some years ago, it does not rule out yesterday and in 1990:

(27)A: When exactly were you in Paris?

B: ??Some years ago/??A long time ago/Yesterday/In 1990.

Rothstein did not provide any further qualification for the term ‘specificity’. Similar to definiteness, specificity is often considered a property of noun phrases. A specific

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6 Another criticism of indefinite-past accounts can be found in Portner (2011), which suggests that the description of the simple past as non-p-definite is counterintuitive. As discussed in Partee (1973, 1984), the simple past is rather an unmarked expression for definite past, given its similarity to personal pronouns such as he, she and it.
description is typically one that expresses the communicator’s certainty about the identity of the referent (see von Heusinger, 2002). For example, in the sentence *Daniel is looking for the dean, whoever it may be*, the definite description *the dean* is non-specific because the identity of its referent is uncertain for the communicator. The specificity of temporal referents is somewhat different. Intuitively, a specific time unit is one with (relatively) discrete boundaries and can be clearly separated from other time units. The lack of discrete boundaries of the temporal referent of *long ago* explains why it fails the specificity test. In Section 4.1.2, we will see that the cross-cutting notions of definiteness (recoverability) and specificity (discreteness) are both implicated in the present perfect’s co-occurrence with temporal adverbials, but in ways that are quite different from what has been previously suggested.

2.2.2 Extended-now accounts

The extended-now account was explicitly developed in McCoard (1978), and has become increasingly popular in recent years (Declerck, 2006; Iatridou et al., 2003; Pancheva, 2003; Portner, 2003; Rothstein, 2008). Some scholars also talk of the notion of ‘perfect time span’, a concept that generalises over time intervals stretching back from any reference time on the temporal axis, not just the present (Iatridou et al., 2003). On extended-now accounts, the distinction between the present perfect and the simple past is that the former locates a situation within the extended-now interval, and the latter an interval disconnected from now. This distinction, be it semantic or pragmatic in nature, has been suggested to be at the root of the standard characterisation of temporal adverbials co-occurring with the two verb forms: –THEN adverbials with the present perfect, +THEN adverbial with the simple past.\(^7\)

Unlike Klein (1992), who did not say much about perfect interpretations, scholars working within the extended-now tradition have discussed this issue extensively. Portner (2003) argues for an interaction-based account for the continuative/non-continuative distinction, tracing it to a ‘general principle’ concerning situation types which, in his view, is also implicated in sequence of tenses phenomena. The principle basically says that stative situations are compatible with both temporal

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\(^7\) The underlying assumption is that a verb form can only take an adverbial whose temporal reference is congruent with its basic meaning (see Elsness, 1997, p. 20).
sequencing and overlap, while non-stative situations require temporal sequencing. Portner (2003) notes the parallel between (28) and (29):

(28)a. Mary has been upset (lately). (stative)
    b. Mary has read *Middlemarch*. (non-stative)
(29)a. John said that Mary was upset. (stative)
    b. John said that Mary read *Middlemarch*. (non-stative)

In the a-sentences, the time of Mary being upset either overlaps or precedes the reference times, which are established by the present perfect and the situation in the main clause, respectively. By contrast, in the b-sentences, the time of Mary reading *Middlemarch* is interpreted as having terminated before the reference times. Portner suggests that since situation type explains the interpretive difference of the sequence of tense phenomena, it should also explain the continuative/non-continuative distinction.

In my view, this solution misses McCawley’s point that the continuative interpretation requires the situation to be ongoing at present. What Portner’s general principle is designed to explain is why the perfect sometimes allows a continuative interpretation, as opposed to why in some cases the continuative interpretation is the only interpretation. Nevertheless, I agree with Portner that some perfects such as Example (28a) are ambiguous between a continuative interpretation and a non-continuative interpretation.\(^8\)

Ambiguity of this type should not be overlooked in a corpus-based analysis.

Another interaction-based account within the extended-now tradition is offered in Pancheva (2003). Unlike Portner, Pancheva argues that perfect interpretations have a grammatical basis, localisable to the aspectual character of the sentence. The claim is essentially that the imperfective aspect yields the continuative interpretation and the perfective aspect yields the non-continuative interpretation.\(^9\)

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\(^8\) A minor difficulty with this solution lies in its definition of state. Portner (2003, p. 463) defines state as consisting of progressives and individual-level states, excluding all (non-progressive) stage-level predicates. Since *be upset* is a stage-level predicate, it is actually not a state in Portner’s sense. This would contradict his analysis of Examples (28a) and (29a) as having stative predicates.

\(^9\) More specifically, Pancheva suggests that the resultative reading is derived by introducing into the aspectual system of English a resultative aspect, which says that the target state of a telic situation holds at the reference time. The hot news perfect is treated as a variant of the resultative or experiential perfect.
difficulties with actual data. As we have already seen, continuative perfects do not necessarily require the (imperfective) progressive aspect. Conversely, there is no guarantee that imperfectivity yields the continuative interpretation, as shown in the following:

(30) a. I have been walking a great deal, he wrote.
   [BNC A08 2822]
   b. Listen, Piper, first, you have been sleeping for the past hour, and second, I think the Germans are counter attacking.
   [BNC A61 142]

The discourse contexts in (30a) and (30b) provide clear clues that the acts of walking and sleeping cannot continue to the present.

Finally, a common problem of all extended-now accounts – as well as Klein’s indefinite-past account – is that they do not accommodate any variation in temporal specification. None of them is concerned with the occasional co-occurrence of +THEN adverbials with the present perfect, as discussed in Section 2.1.2.2.

2.2.3 Perfect-state accounts

Perfect-state accounts represent the meaning of the present perfect as a state that holds at the present moment. As a property of the communicator’s representation of a situation, stativity can be derived by lexical or grammatical means (Michaelis, 2011). The property of the perfect as a grammatical stativiser has been noted by a number of scholars (Michaelis, 2011; Moens & Steedman, 1988; Nishiyama & Koenig, 2010; Parsons, 1990; Schaden, 2009; van Eijck & Kamp, 1997). I will examine this property in more detail in Section 3.2.2.

The central issue for perfect-state accounts is the nature of the connection between the situation described by the perfect and the perfect state (see Portner, 2011). Moens and Steedman (1988) and van Eijck and Kamp (1997) see the perfect state as the consequent state of the past situation: the two are connected by a causal relation. On the
other hand, scholars such as Musan (2001), Parsons (1990) and ter Meulen (1995) and suggest that the perfect state is the ‘resultant state’ of the past situation in Parsons’s (1990) sense: an abstract, permanent state of the situation having occurred. These two views, as Nishiyama and Koenig (2010) correctly point out, are both untenable because they do not extend easily to the continuative interpretation. In the case of the continuative, the present state marks the final endpoint of an atelic situation extending from the past to the present.

The position adopted in Nishiyama (2006), Nishiyama and Koenig (2010) and Schaden (2009) is that there is no semantic constraint on the nature of the perfect state. Rather, the perfect state is a free variable whose nature is pragmatically determined. Specifically, Nishiyama and Koenig (2010) resort to Levinson’s (2000) ‘principle of informativeness (I principle)’. The principle consists of a speaker’s maxim of minimisation and a hearer’s pragmatic enrichment as its corollary, as shown in (31):

(31) I-principle:

a. A speaker chooses the less informative utterance \( q \) when the more informative one \( p \) is available (maxim of minimisation).

b. The addressee enriches the less informative utterance and finds the most specific interpretation he/she thinks the speaker intended.

Nishiyama and Koenig argue that when a speaker makes the utterance *Ken has broken his leg*, the hearer enriches it into more informative inferences of the type in (32), following the hearer corollary in (31b).

(32)a. Ken’s leg is broken.

b. Ken is behind in his project.

c. Ken is very upset.

The difficulty with this solution is that it is not clear at all which one of the three inferences in (32) is the most specific. It is impossible to evaluate their level of
specificity as perceived by the hearer. Levinson’s I-principle does not really explain why the hearer chooses a particular inference from a number of possible inferences as the present state.

Perfect state accounts have also provided explicit solutions to the problem of temporal specification. Taking a cross-linguistic perspective, Schaden (2009) proposes that the probabilistic nature of +THEN adverbials occurring with the present perfect and the simple past reflects competition between the two verb forms. He points out that in languages which have the constraint on +THEN adverbials, the present perfect is the marked form and the simple past the unmarked form for expressing a situation prior to the present. The markedness relation is reversed in languages which do not have the constraint, such as French and German. However, this proposal does not explain the purported tendency for the English present perfect to co-occur with ±THEN adverbials such as before, recently, in the past, which also clearly refer to the past. Based on Schaden’s claims, one would expect the simple past to be the ‘winner’ whenever a past time reference is made.

The competition account nicely predicts the lack of constraint on +THEN adverbials for non-present perfects, since there is simply no competition between the simple past and non-present perfects when the anteriority meaning is evaluated against a reference time other than the present. However, non-present perfects also raise a problem for the competition account. It is well known that non-present perfects can be interpreted in a similar way as the simple past in some contexts, as illustrated by (33):

(33)a. He had lost his key while he was running home.
   b. He seems to have lost his key while he was running home.
   c. He must have lost his key while he was running home.
   d. He lost his key while he was running home.

(Huddleston, 2002, p. 146)

The most natural interpretation for the non-present perfects in (33a)-(33c) is the same as that for the simple past in (33d). The temporal focus is on the event time, the time of losing the key, as opposed to a state following the event. Existing perfect-state accounts
do not provide an explanation for the availability of the eventive interpretation in these contexts. This issue will be addressed Section 3.2.2.

2.3 Summary

In this chapter I have presented three well-known problems in the analysis of the English present perfect, namely, the variability of perfect interpretations, co-occurrence patterns with temporal specifiers, and the present existence requirement. I have also examined several recent accounts of the present perfect’s semantics and pragmatics: the indefinite-past account in Klein (1992) and subsequent modifications in Rothstein (2008), the extended-now accounts in Portner (2003) and Pancheva (2003), and the perfect-state accounts in Nishiyama and Koenig (2010) and Schaden (2009). None of them is without difficulties in dealing with actual data.

Portner (2011) observes that while proposing a single meaning component would be ideal for the analysis of the perfect, it often proves to be insufficient if the analysis is to be comprehensive. This observation is highly pertinent, given the diversity of the data presented in this chapter (for example, without a discourse component, none of the existing indefinite-past, extended-now and perfect-state accounts is able to explain the present existence requirement). Our task, using Occam’s razor, is to explain the widest range of data with the smallest number of conceptual tools. This will be the goal of the next chapter.
Chapter 3  Towards a relevance-theoretic account

This chapter introduces and defends an integrated analysis of the semantics and pragmatics of the English present perfect. My analysis emphasises the role of general communicative strategies in language comprehension and production. The claim is that the compositional semantics of the sentence containing the English present perfect provides linguistic input for a pragmatic mechanism which eventually accounts for its interpretation and use in context.

I begin this chapter by sketching the basic tenets of the theoretical framework, the relevance-theoretic account of communication (Section 3.1 with subsections). I then develop my proposal on the basis of these tenets (Section 3.2 with subsections). Finally I summarise the main arguments of this chapter (Section 3.3).

3.1  Theoretical commitments

Writing on the pragmatics of the English perfect in the late 1970s, McCoard lamented the lack of a principled understanding of the distinction between linguistic and non-linguistic knowledge, and consequently, the absence of a unified theoretical framework for dealing with non-linguistic aspects of meaning:

The trouble is that it is not clear how much information about the way the world works ought to be included in a grammar. The decision to represent a chunk of meaning in grammatical form is usually based on its explanatory “buying power”: if a regular and pervasive meaning-opposition can be bound in a relatively simple way to particular syntactic structures, that opposition will become part of the grammar. Everyone will then applaud the emergence of a grammatical rationale. On the other hand, a semantic opposition of messy detail and apparently great dependence on context is likely to be thought outside the limits of grammar, and ignored. Since we have no general model for representing contextual contributions to meaning, we are forced either to disregard context, or to include it in some arbitrarily particularised form, a choice often glossed over. (McCoard, 1978, pp. 1-2).
The scene has changed some thirty years later. Scholars working on the relevance-theoretic account of communication (Blakemore, 1992; Carston, 2002; Sperber & Wilson, 1986/1995; Wilson & Sperber, 2012) have provided a wealth of ideas for conceptualising a number of important issues in the semantic/pragmatic interface, in particular the boundary between semantics and pragmatics, the nature of types of assumptions communicated and so on. A program of pragmatic analysis necessarily hinges on how these fundamental issues are understood, to which I turn in this section. For a fuller account of relevance theory, the reader may refer to the works mentioned above.

3.1.1 The inferential model of communication

In their 1986/1995 book, which lays the foundation of relevance theory, Sperber and Wilson worked out in detail Grice’s idea of an ‘inferential model’ of communication. The inferential model is an alternative to the classical ‘code model’ which is deeply entrenched in Western thinking. The basic idea of the code model can be traced back to Aristotle, who claims that ‘spoken sounds are symbols of affections in the soul’, which are themselves ‘likenesses of actual things’ (*De Interpretatione*, as cited in Sperber & Wilson, 1986/1995, p. 5). On the code model, verbal communication is achieved by encoding thoughts into signals at one end and decoding thoughts from signals at another end. What enables encoding and decoding processes is a shared language. Language is envisioned as a code system analogous to the Morse code. It is comprised of symbols and rules that pair thoughts with acoustic signals, or speech sounds.

As Sperber and Wilson argue, the classical code model is descriptively inadequate. Thoughts that are conveyed in communication are infinite in number and vary with regard to various types of non-linguistic information such as the time and place of utterance, the identity of the communicator, the communicator’s attitudes, and the like. When used in different contexts, a linguistic structure may have different interpretations; and they usually do. Therefore the semantic representation of linguistic structures and the thoughts they actually convey must be very different. There is a gap between meanings that are part of our linguistic knowledge and meanings that are expressed by communicators.
For Sperber and Wilson, Grice’s major contribution lies in describing communication in terms of the expression and recognition of intentions. In his 1957 article ‘Meaning’, Grice proposed the following characterisation of what it is for an individual to mean something by an utterance $x$:

[An individual] meant something by $x$ is (roughly) equivalent to ‘[the individual] intended the utterance of $x$ to produce some effect in an audience by means of the recognition of this intention’. (Grice, 1957, p. 385)

Grice’s analysis can be seen as a point of departure for the inferential model. Communication is inferential in that the audience recognises the communicator’s intentions by making inferences on the basis of the evidence provided for these intentions. An inferential process begins from a set of premises and results in a set of conclusions that are warranted by the premises. Unlike decoding, the process does not rely on a shared language, and is thus outside the domain of linguistic knowledge. Inference fills in the gap between the semantic representations of linguistic structures and the thoughts actually communicated by these structures.

Since verbal communication inevitably exploits linguistic knowledge to some extent, relevance theory argues for an amalgamation of the code model and the inferential model. Following Fodor’s (1983, 1990) modular theory of cognition, it pursues a conceptualisation of the mind as comprised of a variety of specialised systems. On a lower level, there are input systems that process visual, auditory, linguistic and other perceptual information. Language is an input system that is geared towards the translation of sensory representations into semantic representations. On a higher level, there are central systems that integrate information from input systems and carry out complex cognitive operations. Decoding and inference are related in the following way: decoding consists in the transformation of sensory representations into semantic representations based on the computational rules given in the language module. The outcome of decoding is treated as one piece of evidence for the communicator’s intention by an inferential central system. This system integrates this evidence with other information derived from various input systems and from memory, eventually yielding the audience’s interpretation of the communicator’s intention. In this sense, the
encoding/decoding process is ‘subservient’ to the inferential process (Sperber & Wilson, 1986/1995, p. 27).\textsuperscript{10}

3.1.2 Semantic underdeterminacy

The distinction between encoding/decoding and inference coincides with the distinction between semantics and pragmatics. Semantics deals with encoded/decoded meaning. For the same linguistic structure, this meaning remains the same irrespective of the context the structure occurs in. Our semantic knowledge can be taken to be our linguistic competence as native speakers of the language. The semantics of a sentence is determined solely by its ‘logical form’, which reflects the logical properties of the sentence. These properties make it possible for the semantic representation to undergo such truth-preserving operations as deduction, and to enter into relations such as contradiction or entailment with other semantic representations. Pragmatics is concerned with context-dependent inference. It aims to explain how the audience’s linguistic knowledge interacts with non-linguistic knowledge for the successful interpretation of utterances.\textsuperscript{11} The following example illustrates how the two domains differ from, and relate to each other. When used in different settings, \textit{It’s getting cold} may be interpreted as communicating very different intentions, such as to express the communicator’s reluctance to go outdoors or to ask the audience to have dinner quickly. However, all utterances of the sentence \textit{It’s getting cold} share a common semantic representation, which is determined by the semantics of its constituent linguistic forms and the linguistic rules that are used to combine them, as predicted by the Principle of Compositionality, or Frege’s Principle.

I have so far characterised communication as the expression and recognition of intentions. According to relevance theory, a crucial type of intention in communication is to be informative: by producing a stimulus, the communicator intends to make certain assumptions manifest or more manifest to the audience (and thereby creates a certain

\textsuperscript{10} In more recent years there has been a tendency in cognitive sciences to replace Fodor’s characterisation of undifferentiated central systems with an increasingly modular view of the mind. For a discussion of how a modular account of inference fits within relevance theory, the reader may refer to Sperber (1996), Sperber and Wilson (2002), and Wilson and Sperber (2006).

\textsuperscript{11} This cognitive-psychological view of pragmatics should be distinguished from the sociocultural view, on which pragmatics is mainly concerned with the effect of socially determined maxims on speakers’ linguistic choices (Leech, 1983).
impact on the audience’s cognitive environment). The assumptions communicated are the communicator’s mental representations of the world. They may be factual or non-factual, depending on whether they correspond to the actual state of affairs in the world. For an individual, an assumption is ‘manifest’ at a given time if he/she is capable of mentally representing it and accepting it as true or at least probably true at a given time. ‘Ostensive-inferential’ communication is the relevance-theoretic term for behaviours which make intentions manifest. These behaviours have certain properties which non-ostensive behaviours lack: they draw the audience’s attention to themselves, giving the audience sufficient reason to assume that they have some significance in the communication of intentions.

Suppose dinner is ready and Anna wants Daniel to have dinner. She makes the following utterance:

(1) It’s getting cold.

This is an instance of ostensive-inferential communication. The utterance demands attention to itself, as intended by Anna. If Daniel is able to recognise the assumptions that Anna intends to make manifest to him, and if he trusts Anna to the extent that he believes these assumptions are true, then Anna’s informative intention is fulfilled. In other words, understanding in ostensive-inferential communication is contingent on the audience’s identification of the precise nature of the assumptions that the communicator intends to make manifest.

Like many other pragmatic theories, relevance theory regards the assumptions communicated as propositional in nature: they can be judged as true or false descriptions of a certain state of affairs in the world (or possible worlds). Utterance interpretation thus involves identifying the assumptions communicated, which in turn involves identifying ‘the proposition expressed’ by the utterance. A critical claim made

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12 Another type of intention discussed in relevance theory is the communicative intention. It makes it mutually manifest to the audience and the communicator that the communicator has an informative intention (Wilson & Sperber, 1986/1995, p. 61). This is to account for instances such as the following: Anna leaves a broken hair-dryer around, hoping that Daniel could mend it. However, she does not want to let Daniel know that she is deliberately delivering such a message. In this case, Anna’s behaviour carries only an informative, not communicative intention.
by relevance theory is that the audience needs more than knowledge of logical form, or linguistic competence, to arrive at the proposition expressed. Consider Example (2):

(2) a. Anna will be leaving.
    b. He hasn’t had any lunch.
    c. Henry took off his boots and went to bed.
    d. Jack and Jill went up the hill.

The examples illustrate the many ways in which non-linguistic information intrude into utterance interpretation. To discuss a few: the recovery of the full propositional form expressed by (2a) and (2b) relies on the audience’s interpretation of the spatiotemporal coordinates of the situations: the audience needs to decide on the precise location Anna is leaving from, and the time span for which the negation holds (today). As with (2c), the audience must infer the temporal sequence between the two events. Henry’s taking off of his boots should be understood to be prior to his going to bed. As with (2d), the utterance needs to be interpreted as that Jack and Jill went up the hill together, not individually. In each case, contextually implied information makes up an indispensable part of the truth-conditional content of the utterance.

The above observation constitutes the basis of the ‘semantic underdeterminacy thesis’, a view shared by relevance theory and other pragmatic frameworks such as Bach (1994, 2000), Recanati (2004, 2010) and Travis (1985, 1997). What the thesis says is that semantics grossly underdetermines the proposition expressed. Rather, it functions only as a propositional template, a schema or blueprint, a starting point for the construction of the communicator’s intended meaning. The audience has to perform a series of operations which lie beyond his or her linguistic competence to arrive at the propositional form (and hence its truth conditions). This picture is highly plausible from an evolutionary perspective. Given the requirements for cognitive economy, there is no reason to expect our linguistic system to have evolved in a way that semantics specifies the infinitely diverse array of concepts that human beings are able to represent. There must be some online cognitive process that molds linguistically encoded information into certain shapes so as to accommodate the diversity of the concepts.
On this view, pragmatics starts where semantics leaves off. ‘Pragmatic enrichment’ is a term often used to refer to the inferential process by which the audience completes the propositional schema into full propositional forms with various sorts of contextual elements. The process of pragmatic enrichment is an instance of non-demonstrative inference, a process characterised by fallibility and corrigibility; it does not produce a full, complete demonstration of a conclusion on the basis of a set of premises. The host of linguistic and non-linguistic evidence merely lends support to – but does not guarantee – the construction of the proposition expressed by the utterance. Communication fails when the audience’s representation of the proposition expressed departs from the communicator’s original intention.

One of the most obvious forms of pragmatic enrichment is when the utterance contains linguistic structures that require ‘value assignment’ in context, or what Recanati (2004, 2010) calls ‘saturation’. By ‘value’ I mean the contribution a linguistic structure makes to the truth-conditional content of the utterance in which it occurs. In the dinner example, in order to identify the proposition expressed by *It’s getting cold*, Daniel needs to assign a value to the referent of the pronoun *it* (the dinner). This process is context-sensitive. It is determined in part by the assumptions available to the audience at the time of speech in a particular setting, and in part by the semantic features encoded in *it*. The process is also linguistically mandated: the utterance does not yield a truth-valuable statement unless a definite value is assigned to the referent of the pronoun.\(^{13}\)

I suggest that tense behaves in a similar way to pronouns. Its interpretation involves mandatory value assignment in context. On the Reichenbachian framework introduced in Chapter 1, tenses in themselves do not refer to any particular times. Simple tenses are concerned with the relationship between the deictic time \(s\) and the reference time \(r\), while the perfect is concerned with the relationship between \(r\) and the time of the situation \(e\). The deictic time \(s\) should be taken as an indexical whose value is assigned in context, that is, defined solely by the time when the communicative event takes place.

\(^{13}\) Value assignment contrasts with ‘free’ pragmatic enrichment (Hall, 2008; Recanati, 2012). The latter differs from the former in that it is not mandatory (hence ‘free’). The context adds truth-conditionally relevant elements to the interpretation, but these elements are not necessary to derive the proposition expressed. For example, in *Jean went to Australia and she ran into John*, the second conjunct is naturally interpreted as expressing the proposition *Jean ran into John in Australia*. However, its interpretation does not have to rely on the assumed location of the situation. Pragmatic enrichment in this case is not mandated by any linguistic elements but takes place as a result of purely pragmatic considerations.
This makes \( s \) somewhat different from \( e \) and \( r \): value assignment for \( s \) is automatic and unintentional, whereas for \( e \) and \( r \) it is dependent on the communicator’s intentions to demonstrate or refer to these times. In this sense \( s \) belongs to Kaplan’s (1989) category of ‘pure indexicals’ and \( e \) and \( r \) to ‘true demonstratives’.

### 3.1.3 Conceptual vs procedural meanings

My discussion on personal pronoun and tense in the dinner example points to an interesting difference between these expressions and other elements in the utterance *It’s getting cold*. On a closer examination, the two types of expressions require two distinct types of interpretative processes. As lexical expressions, *get* and *cold* correspond to easily graspable concepts. The audience simply needs to apply such general pragmatic principles as narrowing or loosening at the lexical level to interpret them in the given context. By contrast, the interpretation of personal pronouns and tenses is definitely not of a general kind. It follows specific inferential paths which are semantically encoded and which do not appeal to standard routines of lexical pragmatic enrichment. The semantics of personal pronouns and tenses can be seen as placing constraints on their interpretation, guiding the audience to recognise the appropriate referent as well as the temporal character of the situation that the communicator intends to express.

Based on this observation, relevance theory proposes a bipartition of linguistically encoded information. On the one hand, there are ‘conceptual meanings’ which provide ‘information about the representations to be manipulated’; on the other, there are ‘procedural meanings’ which provide ‘information about how to manipulate them’ (Wilson & Sperber, 1993, p. 2). This bipartition has its roots in cognitive science, in the idea that human thinking can be accounted for ‘in terms of representational structures in the mind and computational procedures that operate these structures’ (Thagard, 2005, p. 10).\(^\text{14}\) Conceptual meanings can be seen as linguistic input for utterance interpretation,

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\(^{14}\) The issue of procedural meaning was raised by Blakemore (1987) in her analysis of discourse connectives (e.g., *but*, *after all* and *therefore*), elements that do not affect truth conditions and whose contribution was analysed in pragmatic terms (Grice, 1967; Karttunen, 1974; Stalnaker, 1974) Procedural expressions were therefore considered as responsible for the non-truth-conditional content of the utterance. As the theory evolved, it gradually became clear that some procedural expressions such as personal pronouns and tense morphemes also contribute to truth conditions. On the other hand, conceptual expressions such as *frankly*, *luckily* and *confidentially* do not contribute to truth conditions when they are used as illocutionary adverbials. The conceptual/procedural distinction therefore crosscuts the distinction between truth-conditional and non-truth-conditional content.
and procedural meanings as linguistic constraints on the specific paths of interpretation. Both conceptual and procedural meanings are part of semantics. The associations between concepts/procedures and the linguistic structures that encode them are determined by the linguistic system proper.

A clear-cut distinction between conceptual and procedural meanings does not imply that the bipartition is mapped onto types of linguistic structures. A commonly shared view is that a linguistic structure can encode both conceptual and procedural information (Saussure, 2011; Nicolle, 1996, 1998; Wilson, 2011). For a linguistic structure, its conceptual meaning is typically managed by the procedural instruction it encodes. For example, third person pronouns such as he, she and it encode such concepts as animacy and gender, and at the same time the procedure which calls for reference assignment in consistency with these concepts. In a similar fashion, but can be seen as encoding the concept of ‘contrast’, and at the same time the procedure about how the concept is to be manipulated in the discourse. In this sense, these expressions themselves are procedural rather than conceptual. The conceptual/procedural distinction will be shown to be useful in understanding the current relevance of the present perfect.

3.1.4 Explicatures vs implicatures

Unlike the conceptual/procedural distinction, which applies to linguistically encoded information only, the explicature/implicature distinction is drawn for types of propositions communicated. To illustrate this distinction let us reconsider the dinner example. As I have suggested, the utterance It’s getting cold communicates the proposition in (3), which is derived by enriching the logical form encoded by the utterance.

(3) The dinner is getting cold.

However, in the given setting, Anna also communicates to Daniel another type of meaning, namely:
(4) Have dinner quickly.

There is a striking difference between the propositional forms of (3) and (4). While (3) has the logical form of the sentence as its subparts, (4) is constructed from an integration of (3) and other contextual information, for example, the audience’s encyclopaedic memory which contains the assumption that the dinner is best eaten hot. In relevance theory, the difference between (3) and (4) is captured by the distinction between ‘explicit’ and ‘implicit’ communication. Sperber & Wilson (1986/1995, p. 182) define explicitness in the following way:

(5) An assumption communicated by an utterance $U$ is explicit if and only if it is a development of a logical form encoded by $U$.

According to their definitions, an explicature is an explicitly communicated assumption. Any assumption communicated which is not explicit is an implicature. Both explicatures and implicatures are pragmatically inferred meanings.

From a relevance-theoretic perspective, there is no restriction in the number of explicatures an utterance may express. The logical form of It's getting cold may be embedded in explicatures describing speech acts or beliefs, such as Anna says that the dinner is getting cold and Anna believes that the dinner is getting cold. In relevance theory, propositions of these types are called ‘higher-level explicatures’, which contrast with the ‘base-level explicature’ in (3). This distinction is drawn to help distinguish a basic description or a truth-conditional representation of a state of affairs from a speaker qualification of the description, which contains, for example, markers of linguistic mood, illocutionary verbs such as demand, argue and question, and adverbials such as frankly, luckily and confidentially. Base-level explicatures can be seen as the propositional content of the utterance without combining with a propositional attitude. Higher-level explicatures generally do not contribute to truth-conditions. In the rest of this thesis the focus will be on base-level explicatures. For the sake of simplicity, I will use the shorter term ‘explicatures’ to refer to what are in fact base-level explicatures.
The following diagram, adapted from Wilson and Sperber (1993, p. 3), summarises the above discussion of the conceptual/procedural and explicit/implicit distinctions. In a nutshell, not all linguistically communicated information in ostensive-inferential communication is linguistically encoded, or inscribed in the semantics of a language. Non-linguistically encoded information is to be explained by a pragmatic inferential process which selects information from the context. Furthermore, not all linguistically encoded information is conceptually encoded. Conceptually encoded information is subjected to manipulation by procedurally encoded information. The outputs of the interpretation process are explicatures and implicatures. They are propositional forms which can be judged as true or false in their own right. The truth conditions of an utterance are always determined by the base-level explicature, not by higher-level explicatures or implicatures.
3.1.5 Relevance

From the discussion so far we can conclude that the derivation of explicatures and implicatures always involves pragmatic inference: explicatures are formed by integrating the logical form of the utterance with contextually inferred conceptual features, and implicatures are formed by making further inferences on the basis of the explicatures recovered. A question then arises: how does the audience infer the precise forms of the explicatures (and implicatures, if any) that the communicator intends to make manifest? In other words, what makes it possible for the audience to identify a correct interpretation among a number of plausible interpretations, all of which are compatible with the linguistically encoded information? This is the central concern of relevance theory. The thesis is that the inferential process involved in human intentional communication is guided by our expectations of relevance. On a standard Gricean account, the recovery of intentions is explained by the Co-operative Principle which consists of the maxims of Quality (truthfulness), Quantity (informativeness), Relation (relevance) and Manner (clarity). Different from Grice, relevance theory says that the expectation of relevance alone is precise enough, and predictable enough to lead the audience towards the communicator’s intended meaning.

On this view, relevance is accessed in terms of ‘cognitive effects’ and ‘processing efforts’. An ostensive stimulus that causes cognitive effects is one that significantly improves an individual’s representation of the world. Intuitively, this may be done by extending his or her knowledge of a certain topic, correcting a mistaken impression or confirming a suspicion. In relevance-theoretical terms, cognitive effects are achieved when the stimulus (a) interacts with existing assumptions to yield a new assumption, or (b) contradicts an existing assumption and results in its elimination, or (c) strengthens an existing assumption in the individual’s cognitive environment. An ostensive stimulus is relevant to an individual if its processing yields a cognitive effect.

Cognitive effects, nevertheless, do not come for free: they are brought about by processing efforts. The amount of effort required to process a stimulus is affected by a number of factors, including the accessibility of the stimulus, its formal complexity, and the accessibility and complexity of the existing assumptions which are needed to yield a new assumption. Relevance can therefore be envisioned as a balance of effect and effort. An assumption is relevant to the extent that its cognitive effects are large and that the processing efforts it requires are small. Other things being equal, an assumption with
greater cognitive effects is more relevant, and other things being equal, an assumption requiring less effort to process is more relevant. Note that it is the individual’s intuitive comparative judgment of relevance – as opposed to its quantitative implications – that is of interest to relevance theorists. This is because, as argued by Sperber and Wilson, even if we can measure all aspects of cognitive effects and processing efforts in strict numerical terms, it is unlikely that individuals in reality assess relevance by computing numerical values.

The core of relevance theory is comprised of two Principles of Relevance. The first of these, the Cognitive Principle, states that human cognition functions in such a way that our perceptual systems tend to select potentially relevant assumptions:

(6) **Cognitive Principle of Relevance**

Human cognition tends to be geared to the maximisation of relevance.

(Sperber & Wilson, 1986/1995, p. 260)

The tendency to maximise relevance is suggested to be automatic and universal: it developed from the constant need for cognitive productivity and efficiency. This tendency has important implications for ostensive-inferential communication. Knowing that an audience will only pay attention to an ostensive stimulus that is relevant enough, a communicator who wants to make his or her intentions manifest will try to catch the audience’s attention by making the stimulus as relevant as possible for the audience. An ostensive stimulus therefore creates a presumption of relevance. This is captured by the second principle, the Communicative Principle:

(7) **Communicative Principle of Relevance**

Every ostensive stimulus conveys a presumption of its own optimal relevance.

(Sperber & Wilson, 1986/1995, p. 260)
The notion of optimal relevance is designed to explain what it means for an ostensive stimulus to be relevant to the communicator and the audience in terms of effect and effort:

(8) **Optimal relevance**

An ostensive stimulus is optimally relevant if and only if:

(a) It is relevant enough to be worth the audience’s processing effort.

(b) It is the most relevant one compatible with the communicator’s abilities and preferences.

(Sperber & Wilson, 1986/1995, p. 270)

I will illustrate how relevance-oriented inference relates to utterance interpretation using the dinner example. Daniel’s recognition of Anna’s intention to ask him to have dinner consists in the following process: on hearing the utterance *it’s getting cold*, he enriches its logical form into a truth-valuable explicature by integrating with it a set of existing assumptions that are manifest to him in the given setting (for example, that dinner is already on the table, and in normal circumstances food on the table does not stay warm for long). This inferential process follows a path of least effort, using the semantics of the conceptual expressions as input and constrained by the procedural instructions encoded. The resulting explicature is tested against Daniel’s expectation of relevance. As the explicature fails to yield sufficient cognitive effects, other existing assumptions in Daniel’s mental repertoire (for example, that food should be eaten while it is hot, and that Anna is waiting for him) are activated and combined with the explicature until he reaches a relevant assumption (Anna wants him to have dinner). The first interpretation to satisfy his expectations of relevance will be the only available interpretation. The pragmatic inferential process will stop as soon as the expectations of relevance are satisfied, and there is no need to construct and consider alternative interpretations.

The search for relevance applies to all types of pragmatic enrichment, including not only processes that lead to the explicatures, such as value assignment for pronouns and tense morphemes, but also those that give rise to implicatures. This is where relevance
theory diverges from the standard Gricean account, in which the Co-operative Principle and its maxims are mainly responsible for the recovery of implicatures. From a relevance-theoretic perspective, the relevance-oriented inferential process aids in the resolution of semantic underdeterminacy at both explicit and implicit levels. To illustrate, the referent assigned to *it* in the dinner example should be one that is most easily accessed in the immediate context, one that also has a certain cognitive effect. If the immediate context does not yield a relevant referent, then the inferential mechanism will continue to activate other contextual information until it reaches a relevant one. In this way, expectations of relevance account for how the audience arrives at the proposition expressed.

3.2 The proposal

Having outlined the major tenets of relevance theory, I will move on to develop a relevance-theoretic analysis of the semantics and pragmatics of the English present perfect. I first argue the present perfect is a procedural expression which encodes the concept of current relevance and at the same time the procedural instructions for how the concept is to be manipulated. I demonstrate that these procedural instructions can be characterised within an enriched Reichenbachian framework incorporating a ‘perfect state’ component (Section 3.2.1). I then show that stativity is a part of the procedurally encoded meaning of all perfects, despite data that seem to point to the contrary (Section 3.2.2). Finally, I show that the notion of optimal relevance plays a vital role in the interpretation of the nature of the perfect state (Section 3.2.3).

3.2.1 Current relevance reinterpreted

Like other tenses, the present perfect encodes procedural meaning. This meaning provides information about the ways in which a situation is viewed by the communicator. It is rigid and cannot be altered: the constraints that it places on the audience’s inferential process must be satisfied without any reconciliation for the interpretation to be successful (Escandell-Vidal & Leonetti, 2011). By contrast, the meanings of situation types are conceptually encoded. Situation types, as I have suggested, are abstract, idealised situation representations generalised over particular
actualised instances. They are specified in the lexicon, linked to encyclopedic knowledge and are easily brought to consciousness. Their interpretation in context is subject to modification by general pragmatic principles such as lexical loosening or narrowing. For example, the actual situation communicated by the utterance *Heavy rain in Sydney has caused flooding* is by default interpreted as ‘heavy rain in Sydney cause flooding [in Sydney]’. The location of the flooding is derived via free pragmatic enrichment which narrows down the extension of flooding. The utterance can still express a complete truth-valuable proposition if the location element is left aside. The interpretation of verb tenses is different: the procedural instructions they encode do not accept modification at any stage of the interpretation.

My description of the present perfect’s procedural semantics is based on the Reichenbachian system of English tenses. In this system, the present perfect is represented as:

\[
(9) \quad e < r \land r = s
\]

As I have argued in Section 3.1.2, \( e \), \( r \) and \( s \) should be treated as temporal indexicals. The present perfect calls for mandatory value assignment for \( e \), \( r \) and \( s \) and at the same time specifies the relationships between these indexicals. To see how an utterance containing the present perfect is interpreted, consider again the example *Heavy rain in Sydney has caused flooding*. The conceptual semantics of the utterance defines a situation representation, namely ‘heavy rain in Sydney cause flooding’. This representation is taken as the input of an inferential process which applies to it the procedural instructions of the present perfect. These procedural instructions say that \( e \), \( r \) and \( s \) must be assigned specific values. The value of \( s \) – and by inference that of \( r \) – is the time when the communicative event takes place. The value of \( e \), which is the time when heavy rain caused flooding, must be interpreted as anterior to both \( r \) and \( s \). The output of this inferential process is a proposition containing information about how the situation is viewed by the communicator.

The above characterisation raises one question: how can we distinguish between the semantics of the present perfect and the simple past, if both refer to a situation prior to \( s \)? In the Reichenbachian system they are differentiated by the location of \( r \). As I have
suggested, the reference time for verb tenses is a vantage point which the situation is seen or viewed from. When \( r \) coincides with \( s \), the communicator views a past situation from the present, hence the present perfect; when \( r \) coincides with \( e \), the communicator views the situation from the past, hence the simple past. While this is obviously in accord with our intuition for the two tenses, it seems to overlook one important point. The present perfect also expresses current relevance – the meaning that the past situation is connected to the present state of affairs in some way (see Section 2.1.3). This connection is not simply a temporal connection established by the mere fact that the time of the situation is prior to the reference time. Rather, it is substantiated in multiple ways. Consider again the four perfect interpretations discussed by McCawley:

(10)a. I have known Max since 1960.
    b. I have read *Principia Mathematica* five times.
    c. I can’t come to your party tonight – I’ve caught the flu.
    d. The Lakers have been defeated!

The difference between (10a)-(10d) can be seen as different ways in which the past situation may have current relevance. In the continuative perfect in (10a), current relevance consists in the continuation of the past situation at present; the situation is interpreted as filling up an extended-now interval which has the present moment as its right boundary. In the experiential perfect in (10b), it consists in an experiential present state, a state in which the past event has already occurred. Current relevance in the resultative perfect in (10c) lies in the persistence of a result of the past event at present. Finally, in the hot news perfect in (10d), the connection between the past and the present boils down to the present newsworthiness of the past event. What examples (10a)-(10d) have in common is that the communicator expresses that the nature of the present state of affairs is somehow contingent upon the situation described. By contrast, the simple past does not express such contingency. It makes no comments at all about the nature of the present state of affairs.

In the literature one often comes across a counterargument against the claim that the present perfect essentially expresses current relevance. This line of thinking can be
traced to McCoard (1978). The central claim is that the criterion of current relevance does not afford any intrinsic means to set apart the present perfect from the simple past. A current-relevance analysis of the present perfect crucially requires the simple past to express ‘non-relevance’. However, this requirement seems to be intuitively implausible, for past events invariably exert certain impacts on the world, and in this sense they are invariably relevant to the present. On this point McCoard cites Sørensen (1964, p. 79):

Any past event, significant or negligible, is connected, or may at least be plausibly maintained to be connected, with the present, in one way or another, directly or indirectly, through its results or consequences, since whatever is is the result of past events, and since whatever was cannot have vanished into thin air, leaving no trace whatsoever. (as cited in McCoard, 1978, p. 56)

That the simple past is equally compatible with current relevance can be seen from (11), taken from the Santa Barbara Corpus of Spoken American English:

(11)A: Is your cigarette out, ... everybody’s.
   B: Yeah, it’s out.
   A: You **smoked** it down into the … cork, didn’t you?
   B: Pardon?
   A: You **smoked** it down into the cork.
   [SBC 011]

(11) illustrates the sometimes subtle distinction between the present perfect and the simple past in discourse. The situation described by the simple past has an entailed present result (the fact that the cigarette is out) and is therefore relevant to the present. Substituting the simple past with the present perfect in this example makes little difference to discourse interpretation, for the present result is already sufficiently salient, as is indicated by the first question *Is your cigarette out?*.  

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15 Vanneck (1957) uses the term ‘colloquial preterites’ to refer to simple past tenses of the type in (11), where the discourse context clearly indicates current relevance. I will return to this issue in Section 4.2.1
The problem with McCoard’s argument is that it confuses two distinct types of current relevance. In some cases, current relevance is a part of the encoded meaning of linguistic structures; in others, it is inferred by the audience based on contextually implied information. There is no denial that, given sufficient contextual assumptions, the situation described by the simple past may be interpreted as having some kind of current relevance. In Example (11), the fact that the cigarette is out follows logically from the action of smoking it down to the cork. The impression that the simple past expresses current relevance is simply a by-product of the interlocutors’ focus on the present state of affairs. Although this state of affairs is inferable from the past event, the simple past does not say that it must be inferred therefrom. In a word, current relevance in the case of the simple past is a pragmatic inference, and being pragmatic in nature, this type of current relevance is not necessarily restricted to the simple past. Consider the following modified version of (11), where the past event is described by the pluperfect:

(12) A: Is your cigarette out?
   B: Yeah, it’s out. I had already smoked it down into the cork when you came in.

Here the pluperfect has an equally apparent current relevance effect. This effect should not be attributed to its semantics, but should be seen as resulting from discourse-pragmatic factors, in particular, the saliency of the present result state and the obvious logical link between such a state and the past event. The utterance itself does not encode any linguistic means to assert the past event’s current relevance.

On the other hand, when the present perfect is used, the communicator intentionally resorts to linguistic means to draw the audience’s attention to a connection between the past and the present. Current relevance in this case, I argue, is a part of the utterance’s encoded meaning. The interpretation of the utterance containing the present perfect must be geared towards the recognition of current relevance. Nonetheless, the precise nature of the current relevance – or in what way the past event is connected to the present – is not linguistically encoded in the utterance. Rather, the present perfect leaves the precise nature of current relevance unspecified. It simply says that the situation is viewed by the communicator as connected to the present in some way, without saying in
what way such a connection is actualised. I believe that this qualification of current relevance, although highly general, is sufficient to set apart the present perfect and the simple past: with the former, current relevance is achieved via semantic assertion; with the latter, current relevance is a matter of pragmatic enrichment.

It can therefore be argued that the present perfect is semantically opposed to the simple past in terms of (a) its present temporal viewpoint, and (b) its linguistically encoded current relevance. The present temporal viewpoint is symbolised by \( r = s \) in the Reichenbachian framework. For representing current relevance, I will take as a starting point Nishiyama and Koenig’s (2010) perfect-state account, in which the semantics of the present perfect introduces a free propositional variable \( X \) obtaining at \( r \) (or \( s \)). The basic intuition for this treatment is that, as has been discussed, the present perfect does not specify in what way the situation is connected to the present but merely asserts the existence of the connection. A free propositional variable nicely embodies this intuition: its value is semantically underdetermined and must be obligatorily assigned in context. The reason why this variable is a proposition is that, intuitively, the present perfect’s current relevance reflects a communicator’s description of the state of affairs at the deictic time. Like other assumptions expressed by the communicator, such a description can be true or false, depending on whether it is congruent with the actual state of affairs.

On the present analysis, the use of the present perfect entails that a past situation is viewed by the communicator as of current relevance. As such, the situation is meant to warrant a description about the present state of affairs. Interpreting the present perfect involves identifying the nature of the situation’s current relevance, which, in turn, hinges on identifying the nature of the description made by the communicator about the present. In other words, the present perfect’s interpretation is underpinned by the process in which the audience assigns a specific value to \( X \). Since the value of \( X \) is not linguistically encoded, there must be some pragmatic mechanism that is responsible for the value assignment process. One of the main innovations of this study is to develop a relevance-theoretic account for the value assignment process. This will be discussed later in Section 3.2.3. I will show that this account enables us to make successful, consistent predictions about the outcome of interpretation, which cannot be afforded by Levinson’s I-Principle in the way suggested by Nishiyama and Koenig (2010) (see Section 2.2.3).
I am now in a position to provide a modified procedural semantics for the present perfect:

\[(13) \quad e \prec r \land r = s \land \tau(X) = r\]

Here \(\tau\), introduced by Krifka (1989), is a function that maps a situation onto its ‘temporal trace’, the time interval during which a stative situation obtains or the time interval in which a non-stative situation occurs. The formula \(\tau(X) = r\) thus says the temporal trace of \(X\) must coincide with \(r\). The reason why \(X\) coincides not straightforwardly with \(s\) but with \(r\) is that only \(r\) is directly associated with the situation described (via its temporal relation to \(e\)). An advantage of this analysis is that it can easily be used to account for the semantics of non-present perfects. I will turn to them in the next section, where I discuss the perfect’s (non-)stativity.

### 3.2.2 The (non-)stativity of the perfect

My aim in this section is to clear the ground for a unified perfect-state analysis on which all perfects, present and non-present included, are regarded as grammatical stativisers. Following Michaelis (2011), I take stativisation as a process by which language users create a stative predicate from one that requires a non-stative interpretation. The perfect is a dedicated grammatical stativiser insofar as it requires that a state hold at its reference time. When it is used to describe a situation, the situation representation, which is unrestricted in terms of its aspectual properties, is shifted into a state representation. The predicate becomes stative as a result.\(^{16}\)

A range of linguistic tests have been devised to show that the perfect parallels the function of stative predicates (Katz, 2003; Michaelis, 2011; Rothstein, 2008). To avoid repetition, I will not discuss these tests and the reader may refer to Rothstein (2008) for a critique. In my view, the perfect’s stativity is best illustrated by the fact that it is aspectually compatible with the present tense. States are compatible with the present tense because of their homogeneity: the present moment, which is construed as a single time point with minimal duration, reflects the same state of affairs as the remaining time

\(^{16}\) Note that the nonstandard ‘vivid narrative’ use of the present perfect is arguably eventive: see Section 5.3.4.
points within the time for which the state holds, and can thus be seen as representing the whole state. By contrast, non-stative situations consist of a series of differentiated internal stages, and it will have to take more than one single time point for them to unfold. For this reason the English present tense is incompatible with a non-stative interpretation. When non-stative predicates do occur in the present tense, the interpretation typically becomes that of a stative habitual, via a process commonly called ‘aspectual coercion’ (Swart, 1998; Egg, 2005; Moens & Steedman, 1988). Example (14) illustrates:

(14) Sam goes up the coast with his wife (as opposed to by himself).

Example (14) is most likely to be interpreted not as that Sam is now on his way up the coast with his wife, but as that there is a certain property of Sam which is true at present. This renders a stative interpretation. Since the perfect does not undergo aspectual coercion of this kind when occurring in the present tense, it must have a stative character.

Crucially, treating the perfect as a stativiser demands a principled explanation for why sometimes the construction appears to also allow for an eventive interpretation. This is what I mean when I talk of the ‘non-stativity’ of the perfect, a property that has often been discussed in the literature (Huddleston, 2002, p. 146; Jespersen, 1931, pp. 151-2; Leech, 1971, p. 42; Quirk & Greenbaum, 1973, p. 342). To illustrate this property, consider again how the distinction between non-present perfects and the simple past is neutralised in certain contexts. Example (34) in Chapter 2 is represented below:

(15)a. He had lost his key while he was running home.
    b. He seemed to have lost his key while he was running home.
    c. He must have lost his key while he was running home.
    d. He lost his key while he was running home.

(Huddleston, 2002, p. 146)
As I have stated, the most natural interpretation for (15a)-(15d) is that the communicator’s focus is on the event of losing the key, not on a state following the event. The fact that (15a)-(15c) are interpreted in the same way as (15d) seems to show that the perfect needs not always be stative. Another case in point is the ‘pre-preterite’ function of the pluperfect in indirect speech, as shown in (16):

(16)a. ‘The exhibition finished last week,’ explained Ann.

b. Ann explained that the exhibition had finished the preceding week.

(Quirk & Greenbaum, 1973, p. 343)

The pluperfect in (16b) has the same eventive interpretation as the simple past in (16a): the temporal focus is on the past event, as indicated by the temporal adverbial the preceding week. The only difference between (16a) and (16b) is the location of the reference time, the time against which the finishing of the exhibition is evaluated. In view of these instances, many authors (Comrie, 1985; Lee, 2010; Spejewski, 1996; Thieroff, 1994) see the pluperfect – and perhaps all non-present perfects – as semantically ambiguous between the event-focused representation of (17a) and the state-focused representation of (17b):

(17)a. \( e = r \ & \ r < s \)

b. \( e < r \ & \ r < s \)

My position is that there is no sufficient ground for a (semantic) ambiguity analysis for the pluperfect. Instead, the pluperfect by itself has the unambiguous semantic structure of (17b). Furthermore, all perfects, present and non-present included, share the common structure of \( e < r \). The paradox created by the conflict between the perfect’s stativity and the eventive interpretation of Examples (15) and (16) should be explained in terms of aspectual coercion triggered by the linguistic context. Note that the stative interpretation is salient with non-present perfects when adverbial clauses are absent. Examples (18) and (19) give the default inference for nature of the perfect state:
(18)a. He had lost his key. ⇒ He didn’t have the key.
   b. He seems to have lost his key. ⇒ It is likely that he doesn’t have his key.
   c. He must have lost his key. ⇒ It is likely that he doesn’t have his key.

(19) Ann explained that the exhibition had finished.
    ⇒ The exhibition was finished (at the time when Ann made the explanation).

I suggest that the temporal modifiers in (18) and (19) (while he was running home and the preceding week) should be regarded as triggers of eventive coercion. They shift the temporal focus from the perfect state to the past event. The aspectual conflict between the state representation required by the perfect and the event representation required by temporal modifiers is resolved in favour of the latter. Thus the sentences as a whole, but not the perfect alone, can be seen to have the semantic structure of $e = r$. There is nothing unusual about the process: the capacity to trigger eventive coercion is not unique to temporal modifiers. Consider (20):

(20)a. John started to like Lin.
   b. She drank two beers.

In (20a), the state denoted by like is coerced into an event by the inchoative marker start to, which emphasises the starting point of a state. Likewise, the quantifier two in (20b) coerces the activity denoted by drink beer into an event with well-defined initial and final endpoints. Needless to say, the eventive interpretation of (20a) and (20b) does not entail that like (Lin) and drink (beer) also denote events when viewed in isolation. By the same token, there is no reason why the eventive interpretation of (15) and (16) should require the perfect’s inherent semantic structure to also be eventive.

An additional point to note is that eventive coercion in the case of the perfect may not be entirely attributable to the semantics of temporal modifiers or other linguistic
elements. In (15), for instance, the factors that give rise to an eventive interpretation include not only the atelicising function of the progressive (which reduces the saliency of the transition from the event to its subsequent state), but also our world knowledge, in particular, the assumption that running and losing the key are prone to occur simultaneously. In this instance, eventive coercion is a part of a contextually governed process of utterance interpretation. The resolution of the aspectual conflict between the perfect and the adverbial clause is effected as a result of applying pragmatic inferential strategies. This can be seen more clearly by comparing (15) with (21), for which the default interpretation is stative:

(21)a. He had lost his key when he came to the door.
   b. He seems to have lost his key when he came to the door.
   c. He must have lost his key when he came to the door.

To summarise, I have shown that counterarguments against the perfect’s stativity are untenable, for the availability of a strong eventive interpretation for (non-present) perfects can be attributed to the presence of certain linguistic elements in the sentence. These elements, in conjunction with our world knowledge, trigger aspectual coercion, shifting the perfect’s stative representation into an eventive one. On the current analysis, perfects alone, present and non-present included, effectuate stativisation. A present perfect introduces a present state, while a non-present perfect introduces a state that obtains at its reference time.

Taking up the arguments made in the previous section, I assume that the nature of the perfect state is semantically underdetermined. The procedural semantics of the perfect can now be seen to incorporate a stativising component, as represented in (22):

(22) \( e < r \& \tau (X) = r \& \text{STAT} (X) \)

The operator \( \text{STAT} \) was originally used by Vlach (1981) in his analysis of the progressive. Here I use it to indicate that the perfect selects a state representation from an aspectually-open situation representation. What (22) says is that: (a) the perfect
expresses that the time of the situation is prior to the reference time; (b) a semantically underdetermined proposition is asserted regarding the state of affairs at the reference time; (c) this proposition is stative.

I have so far left one question unanswered: why is the eventive interpretation available for non-present perfect sentences, but not for present perfect sentences in English? I believe the main explanation is the remarkably strong stative character of the present tense, which resists eventive coercion. A related phenomenon is the constraint against +THEN adverbials co-occurring with present perfects. +THEN adverbials are similar to event time modifiers such as while he was running home in their function to denote a past time disconnected from the present. I will explore this constraint in Section 4.1.2 in more detail.

3.2.3 Value assignment for the perfect state

In this section I examine the principles governing the value assignment process for the free proposition variable $X$. I argue that $X$ must always have a unique value when the perfect occurs in a particular context, and the same set of contextual assumptions will always lead to the same proposition value. The use of the present perfect in an utterance entails, on the part of the communicator, the expression of a unique proposition about the present state. Accordingly, in order to interpret the utterance, the audience must be able to infer this unique proposition. The reason why $X$ should not embrace a multitude of values in a given context is that if it were so, it would become highly unpredictable and difficult to recognise, therefore increasing the likelihood of communication failure. A ‘one form, one meaning’ analysis is also congruent with our intuition of current relevance: given enough contextual information, what we can normally infer from the present perfect is not merely that the situation is connected to the present, but more importantly, that it is connected to the present in a particular way.

How, then, can we determine the precise value of the present state proposition communicated by the present perfect? My claim is that such a proposition must satisfy two requirements. First, it must be a proposition inferentially linked to the situation representation, one that the communicator assumes can be inferred by the audience from the situation representation in a given context. Second, it must be of optimal relevance.
to the ‘discourse topic’ at the point of the utterance. I will explain the second requirement in more detail.

I begin by presenting an operationalised characterisation of the notion of discourse topic. Although people generally share the same intuitive understanding of topic – what a fragment of spoken or written discourse is about, there is little agreement among linguists on the basis on which discourse topics are identified (Brown & Yule, 1983, p. 70). Traditionally, research on topic-comment structure treats topic as a specific grammatical category or sentential constituent independent of discourse context (Givón, 1976; Grimes, 1975; Halliday, 1967; Sgall, Hajičová, & Benečová, 1973). More recently, topicality has been approached from a context-dependent perspective, notably in such works as Asher (2004), Asher and Lascarides (2003), Lascarides and Asher (1993), and van Kuppevelt (1995a, 1995b). From this perspective, topic is regarded as a uniform notion comprising both sentence/utterance topic and discourse topic. Discourse structure is seen to be organised in line with a hierarchy of topic-comment structures defined for both individual sentences/utterances and larger discourse units.

I will base my operational characterisation of discourse topic on van Kuppevelt’s (1995a, 1995b) question-based model of topicality. According to this model, the topic-comment hierarchy underlying a segment of discourse is derived from explicit and implicit questioning. At each point of the ongoing discourse, the communicator provides an answer to a question which he/she anticipates to arise with the audience based on existing contextual assumptions. This question may not be explicitly asked, but may remain implicit, especially in monologues. Take for example the discourse segment in (23):

(23) While this macro-level perspective explains broad characteristics of fear, it misses the micro-level cues in the built environment that affect feelings of vulnerability and fear of crime at a specific location. Yet, research has shown that offenders rely on micro-level cues to select a suitable target (see Taylor and Gottfredson, 1986). The cues indicate opportunities for committing a crime.

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17 For example, in Halliday (1967), the topic (or ‘theme’) of a sentence is identified as the element in the sentence-initial position, irrespective of its syntactic category. In generative grammar, topic is seen as a sentential constituent derived from a movement transformation called ‘topicalisation’ (Chomsky, 1965; Grimes, 1975).
The set of implicit questions that the writer might have answered in producing this monologue is presented in (24):

(24)a. While this macro-level perspective explains broad characteristics of fear,

   < Question 1: What is its shortcoming? >

b. it misses the micro-level cues in the built environment that affect feelings of vulnerability and fear of crime at a specific location.

   < Question 2: How do micro-level cues relate to crime? >

c. Yet, research has shown that offenders rely on micro-level cues to select a suitable target (cf. Taylor and Gottfredson, 1986).

   < Question 3: How do micro-level cues relate to crime? >

d. The cues indicate opportunities for committing a crime.

There is no difference in the level of coherence between the original text in (23) and the one with implicit questions in (24), although the latter is obviously too cumbersome to interpret. The contribution made by the implicit questions in structuring the discourse would remain the same had they been explicitly asked.

On the question-based model, the topic of a discourse unit is the subject of the explicit or implicit question answered by the discourse unit, while the comment is the answer itself. For my analytical purposes, I will represent topics in the form of noun phrases. For example, the topic of (24b), as determined by Question 1, will be represented as ‘the shortcoming of macro-level perspectives’. I will not maintain the

18 The ‘topic-as-entity’ view has sometimes been regarded as an alternative to the ‘topic-as-question’ view. Portner and Yabushita (1998), for instance, argue in favour of the former on the ground that the latter is paradoxical when topics occur in questions themselves. I do not think this argument creates any difficulty for van Kuppevelt’s model, since topics can be equally derived from explicit questions, not just implicit ones. I see the ‘topic-as-entity’ view and the ‘topic-as-question’ view as closely related, and the former is in fact also occasionally invoked in van Kuppevelt’s analysis (1995a, pp. 113-114). As far as my data are concerned, there is no substantial difference between treating discourse topic as a question and as an entity, and I opt for the latter for the sake of convenience.
terminological distinction between topics of individual sentences/utterances and of larger discourse units, but will employ the term ‘discourse topic’ whenever the context-dependent notion of topicality is evoked. I will use the term ‘topical prompt’ to refer to elements in the communicative setting that induce discourse topics, replacing the more technical term ‘feeder’ in van Kuppevelt (1995a). Explicit questions in dialogues are the most straightforward cases of topical prompts. More often than not, topical prompts are represented by implicit indeterminacies or ‘information gaps’ in the discourse, which result from a combination of linguistic denotations and connotations, as well as contextual assumptions. For example, the connective while in (24a) gives rise to an indeterminacy concerning what lies in contrast to the information provided in the while-clause. Topical prompts can also be certain non-linguistic aspects of the communicative setting. For example, physical acts such as reading newspapers and watching a news channel induce the audience’s anticipation of the general theme of the discourse, namely, ‘newsworthy events’.

Let us now turn to the relationship between discourse topic and value assignment for the present state proposition. I argue that the value of such proposition must be optimally relevant to the discourse topic at the time of making the utterance. Consider Example (25):

(25) A: How old is your father?
   B: Uhm, I don’t know exactly. He’s coming up to sixty. Nearly sixty.
   A: And he’s in good health?
   B: Uhm he’s just come out of hospital with kidney stones.
   A: Is he treated for blood pressure or anything like that?
   B: No.
   [ICE-GB S1A 051 307-315]

In (25), the question And he’s in good health? serves as a topical prompt, inducing the discourse topic ‘speaker B’s father’s current physical condition’. If speaker B successfully recognises this topic, then the present state proposition that he/she chooses to express with the present perfect should be one that is for him/her most relevant to the discourse topic. Moreover, it is also one that B assumes to be worthy of speaker A’s
processing effort and therefore inferable from the context. On the other hand, speaker A, assuming that B’s utterance carries optimal relevance, enriches the logical form of B’s utterance by integrating it with his or her existing contextual assumptions. This interpretation process ends when A arrives at a present state inference that is logically linked to the situation representation and at the same time is relevant enough to the given discourse topic. In this way optimal relevance to discourse topic explains why our default present state inference for (25) is He is not in good health, as opposed to other inferences such as He is now staying at home and He does not have gall stones. These inferences are equally legitimate in the given context, being recoverable from the event of one’s coming out of hospital with kidney stones. However, they do not qualify as the value of the present state proposition because they are not relevant enough to the discourse topic, in comparison with the inference He is not in good health.

The same pragmatic inferential process applies when there is no explicit questioning in the discourse, as shown by Example (26):

(26) The next moment, Archie was upon them. As he fell into step beside them, he gave Clara a quick questioning glance.
   ‘Feeling all right now?’
   She nodded.
   ‘I was sent to tell you both tea was ready. Then I suppose I ought to be getting Clara back to Worcester.’
   ‘I’ve arranged for Milburn to drive her,’ said Lady Cressett. ‘I say, Theresa. I thought I was going to,’ protested Archie.
   [ARCHER 1952whit.f8b]

In this fictitious setting, Archie’s utterance gives rise to an indeterminacy regarding the topic ‘getting Clara back to Worcester’. With the present perfect in the following utterance by Lady Cressett, the writer then communicates a proposition regarding an imaginary ‘present state’. Our interpretation of this utterance involves enriching its logical form on the basis of our assumptions about the state of affairs in the imaginary world. The outcome of the interpretation is the ‘present state’ inference You don’t need
to drive her (said to Archie), which is most relevant to the given discourse topic ‘getting Clara back to Worcester’.

The above arguments can be summarised by a pragmatic principle of value assignment for the perfect state:

(27) Principle of value assignment for the perfect state

A perfect in an utterance $U$ expresses a proposition about the state at its reference time. This proposition is inferentially linked to the situation described by the perfect and is of optimal relevance to the discourse topic at the time of uttering $U$.

In relevant-theoretic terms, (27) entails:

(28)a. In using the perfect in an utterance $U$, the communicator expresses a proposition (about the state at its reference time) which is, for him/her, most relevant to the discourse topic at the time of uttering $U$.

b. In interpreting the perfect in an utterance $U$, the audience infers a proposition (about the state at its reference time) which is, for him/her, relevant enough to the discourse topic at the time of uttering $U$.

The principle applies to all perfects, present and non-present included. With non-present perfects, the discourse topic is induced by an indeterminacy regarding the state of affairs in a non-present time sphere. Consider the pluperfect in the following example taken from fiction:

(29) Dr. Tamkin slid the two checks across the table. “Who paid yesterday? It’s your turn, I think.” It was not until they were leaving the cafeteria that Wilhelm remembered definitely that he had paid yesterday too. But it wasn’t worth arguing about.

[ARCHER 1951bell.f8a]
Here the discourse topic for the pluperfect involves an obligation to pay the bill. This obligation is true at an (imaginary) past time unconnected to the readers’ immediate concerns, that is, the time when the protagonists were leaving the cafeteria. Accordingly, the perfect state inference, namely, *It was not Wilhelm’s turn to pay*, is concerned with the state of affairs at this past time.

### 3.3 Summary

In this chapter I have argued for a discourse-pragmatic approach to the Modern English present perfect. This approach draws substantially from the relevance-theoretic account of communication developed by Sperber and Wilson (1986/1995). On this account, semantics deals with the context-independent meanings of linguistic structures. These meanings are derived from the process of encoding/decoding and are enabled by a shared language which maps semantic representations onto sensory representations. Pragmatics, on the other hand, deals with context-dependent inference, and more specifically, with cognitive, non-linguistic factors in utterance formulation and interpretation across particular contexts. Utterance interpretation is contingent on the identification of the proposition expressed by an utterance. To arrive at this proposition, the audience cannot rely on the utterance’s semantics alone, but needs to enrich it with contextual elements via a pragmatic inferential mechanism. A major argument of relevance theory is that this inferential mechanism is driven by the search for optimal relevance, which is a balance of cognitive effect and processing effort. In ostensive-inferential communication, where the communicator wants to make intentions manifest to the audience, he/she will formulate an utterance in accordance with his/her expectations of relevance. Every ostensive stimulus therefore creates a presumption of relevance.

My analysis of the present perfect has a semantic and a pragmatic component. The semantic component accounts for its linguistically encoded meaning. I have argued that the construction is a procedural expression that encodes the conceptual meaning ‘a past situation is of current relevance’ and procedural instructions in consistency with this meaning. The procedural instructions place constraints on the audience’s interpretation of how a situation is represented by the communicator. On the Reichenbachian theory
of tenses (Reichenbach, 1947/1966), they involve value assignment for three basic temporal units, the deictic time $s$, the reference time $r$, and the time of the situation $e$, as well as the inference of their interrelationship ($e < r \& r = s$).

On this analysis, all perfects, present and non-present alike, share a unified structure of $e < r$. They are dedicated grammatical stativisers in that they require a state to hold at $r$, shifting an aspectually unrestricted situation into a state representation. I have shown that the eventive interpretation sometimes yielded by non-present perfects (as in *He had lost his key while he was running home*) is due to aspectual coercion triggered by linguistic elements in the sentence and/or our world knowledge. When considered in isolation, neither the present perfect nor any of the non-present perfects is ambiguous between two or more semantic structures.

The analysis takes as a starting point Nishiyama and Koenig’s (2010) perfect-state account, treating the perfect state as semantically free proposition $X$. The procedural semantics of the English present perfect is shown as follows:

$$e < r \& r = s \& \tau (X) = r \& \text{STAT} (X)$$

The formula expresses that: (a) the time of the situation precedes the reference time; (b) the reference time coincides with the deictic time, or the present; (c) a stative proposition holds at the reference time. The perfect is a monosemous construction with a unified semantic structure. The difference between the present and non-present perfects lies in the different locations of $r$.

The present perfect’s current relevance is explained in terms of its capacity to express that a semantically free stative proposition holds at present. Accordingly, the construction does not specify the precise nature of relevance; it merely says that a past situation is connected to the present in *some* way. A crucial difference between the present perfect and the equally past-referring simple past tense is that the latter does not explicitly assert the situation’s current relevance. This does not contradict the fact that a situation expressed by the simple past can be viewed as of current relevance given sufficient contextual support. Linguistically encoded and contextually inferred current relevance should not be confused with each other.
The pragmatic component of my analysis concerns value assignment for the present state. Informatively, this amounts to recovering the precise nature of current relevance, or in what way the connection between the past and the present is actualised. The value assignment process is mandatory and context-sensitive. It relies on a pragmatic inferential mechanism which takes as input the logical form of the utterance and enriches it with assumptions that are available to the audience at the time of speech in a particular communicative setting. In this sense, the semantics of the utterance containing the English present perfect grossly underdetermines the interpretation the utterance receives during discourse interpretation. The outcome of interpretation is a present stative proposition. For a unique, fully interpreted present perfect utterance, the value of the present state must also be unique.

The notion of optimal relevance defined in relevance-theoretic terms is highly useful for understanding how the audience arrives at the precise value of the present state intended by the communicator. I propose a pragmatic principle of value assignment for the present state:

A present state \( X \) is the value of the present state communicated by a present perfect in an utterance \( U \) if and only if \( X \) is:

(a) inferentially linked to the situation described by the utterance \( U \), and

(b) is of optimal relevance to the discourse topic at the time of uttering \( U \).

Discourse topic is defined, within a question-based model of topicality, as the subject of the explicit or implicit question answered by a discourse segment (van Kuppevelt, 1995a, 1995b). For the communicator, the value of the present state is the most relevant one compatible with his/her abilities and preferences. For the audience, it is the first interpretation that satisfies his/her expectations of relevance. Full interpretation of the present perfect hinges on the recovery of a present state that meets the above requirements. I have shown that the relevance-driven pragmatic inferential mechanism successfully accounts for the outcome of interpretation of the present perfect by guiding the audience to select, out of a range of present states inferentially linked to the situation described, the particular present state intended by the communicator.
Chapter 4  Applications and implications

The relevance-theoretic account of the English present perfect that I have outlined so far has implications for a range of empirical data related to the construction’s interpretation and use. In this chapter, I demonstrate that by applying and extending this account, the three main problems discussed in Chapter 2 can be resolved using a common analytical lens, without proposing an array of independent semantic features for the present perfect (Section 4.1 with subsections). I also show that a pragmatic approach informed by relevance theory provides fresh insights into the construction’s synchronic variation and diachronic development (Section 4.2 with subsections). The findings of this chapter are summarised in Section 4.3.

4.1  Solving the problems

4.1.1  Perfect interpretations

Regarding the three main perfect interpretations identified in the literature (continuative, experiential, resultative), my claim is that the interpretive differences boil down to differences in the possible forms of propositions that the audience infer about the state of affairs at the reference time. I argue that these propositions are in most cases explicatures or implicatures. The pragmatic principle in conjunction with its extension introduced in Section 3.2.3 determines which particular proposition is eventually selected as the value of the present state in a given context. Viewed in this light, the variability of perfect interpretations can be said to have a pragmatic basis.

4.1.1.1  The continuative interpretation

I first examine the continuative vs non-continuative distinction, beginning with the issue of definition. I argue that the continuative interpretation should be defined by the possibility of making either one of the two following types of inferences about the state of affairs at the reference time, which I will call ‘continuative inferences’. The first type is a proposition expressing a state that is identical to the state described by the utterance without the perfect morphology. Consider the continuative perfects in (1):
(1) a. For some years schemes **have existed** to encourage teachers to set out like Victorian missionaries to explore the strange and wild territory of industry and to convert its leaders to an acceptance of the virtues of education.
[BNC B2T 187]

b. Detectives **have been hunting** him since the discovery of a bomb factory in a London flat shortly before last Christmas.
[BNC A23 61]

For (1a), the continuative inference is that *The schemes still exist.* In (1b), the progressive shares with the perfect the capacity to create a stative predicate from an originally dynamic one (Michaelis, 2011). The continuative inference is that *Detectives are hunting him.*

Alternatively, the continuative inference can be a habitual state of the situation described by the utterance without the perfect morphology. This occurs when the former possibility is barred by either the dynamicity of the situation or our world knowledge. Consider Example (2):

(2) a. *I’ve always driven a Porsche ever since I could afford one.*
[BNC A6L 512]

b. Human beings **have been munching** apples since prehistoric times.
[BNC HH3 12516]

With (2a), the proposition *I drive a Porsche* (interpreted as ongoing) cannot be true at present because of the inherent conflict between the heterogeneity of states and the dynamicity of activities. As for (2b), although *Human beings be munching apples* counts as a legitimate stative predicate, the interpretation that it is in progress at present is incompatible with our world knowledge. I suggest that in cases of this type the continuative inference derives from a process of habitual coercion, by which the
situation’s property of being in progress at present extends itself to the present validity of the situation’s regular occurrence.¹

The continuative inference, however, is not necessarily the value of the present state proposition. This follows from the pragmatic principle of value assignment for the perfect state. The continuative inference is only one of the many possible inferences that can be made about the reference time. Which inference is eventually selected is determined by their degree of relevance to the discourse topic. Example (3) illustrates:

(3) A: I mean I just can’t imagine. It’s incredible. She’s just growing. She’s gonna be as big as that turtle in the pet shop.
   B: Yeah in thirty years.
   C: How big is that?
   B: Huge.
   A: I mean, it is just --
   B: They’ve had this thing -- th- this turtle for like thirty years.
   A: like twenty years.
   B: Ever since the pet store opened up.
   [SBC 015]

The present perfect in (3) invites a continuative interpretation, with the continuative inference being They have the turtle. Nevertheless, this inference is not the perfect state proposition communicated by the utterance, due to its lack of sufficient relevance to the discourse topic – the current size of the turtle in the pet shop. The perfect state proposition in this given context is rather the inference The turtle is huge, which is a conversational implicature of the utterance.

It is important to see the continuative interpretation as a pragmatic inference, and not as an entailment of the perfect utterance. In relevance-theoretic terms, the

¹ It follows that at least two distinct processes of stativisation are at work in the derivation of the perfect state inference. The first is required by the procedural semantics of the English perfect and applies to all situation types. The second is triggered by the present and past tense in English (as in the present perfect and the pluperfect), which coerce non-stative predicates into habitual stative ones when an in-progress interpretation is disallowed by the context. The first process is linguistically governed, whereas the second is contextually governed. See also Swart (1998) and Michaelis (2011) on the distinction between stativisation triggered by ‘type-shifting’ and by ‘type-selecting’ devices.
continuative inference can be described as one of the utterance’s explicatures: it is a pragmatically inferred meaning, a development of the utterance’s logical form. It is inferentially derived by integrating the logical form with contextual assumptions. That is to say, the linguistic elements discussed in Section 2.1.1.1 (atelic verbs, temporal adverbials, the progressive aspect and negation) will always have to combine with certain contextual information so as to yield the continuative inference. Conversely, even if a perfect utterance contains one or more of these linguistic elements, it may still be interpreted as non-continuative if this is required by the context.

I illustrate this point first with temporal adverbials such as *for*-adverbials and *always*. Consider (4):

(4) a. The Faroe Islands are self-governing, but **have been** for many years a colony of Denmark, and still rely on the government of the old mother country for international representation.
   [BNC ABC 810]

   b. Heading a homicide enquiry is a prize which **has always eluded** her, until against all the odds she is appointed to head a case.
   [BNC A0F 2194]

On the semantic approach (Pancheva, 2003; Portner, 2003; Rothstein, 2008), the presence of these temporal adverbials would always entail a continuative interpretation as long as the situation is atelic. However, as we can see, the interpretations of (4a) and (4b) are non-continuative, although the present perfect clauses satisfy all the semantic requirements of a continuative perfect. A continuative interpretation is not possible in these cases for it runs into conflict with contextual assumptions. In (4a), being self-governing at present implies that the Faroe Islands are no longer a colony of Denmark. The time of the situation is interpreted as having terminated before the present. As for (4b), the continuative interpretation *The prize eludes her* contradicts the information supplied in the following clause, namely, that she is now appointed to head a homicide enquiry.
Similar to temporal adverbials, the progressive aspect and negation do not guarantee a continuative interpretation. Progressive non-continuatives have already been discussed in Section 2.2.2. Negative non-continuatives are illustrated by (5a) and (5b):

(5) a. The growing number of men, women and children with AIDS and the fact that people with the disease now survive longer, have made ever more pressing demands on our Home Care teams. In the schools the need for AIDS education has never been greater.
   [BNC A02 24]

   b. ‘I let the twins use their money on drugs because I don’t want to turn them into thieves –’ he paused, ‘or hookers. Getting laid has never been so cheap in all history.’
   [BNC CCW 928-929]

In (5a) and (5b), the negation of the situation is true of an up-to-now time span which extends up to the present without properly including it. A continuative interpretation is ruled out in this case because the present state is not a continuation of the negation, but one that stands in contrast to the state filling up the up-to-now span.

Finally, atelic situations alone are equally insufficient to yield a continuative interpretation. This point has also been raised by Portner (2003), whose analysis has been presented in Section 2.2.2. To reiterate, when the situation type is stative, the present perfect is compatible with both continuative and non-continuative interpretations. Consider Example (6):

(6) Anna has been sick.

Out of context, the time of Anna being sick may be interpreted as either including or excluding the present. The ambiguity is resolved when more contextual information is provided, as shown by (7). The default interpretation for (7a) is continuative: Anna’s unwillingness to go to school serves as the basis of the inference that she is now sick.
By contrast, (7b) has a non-continuative interpretation: the fact that she has gone back to school disallows the continuative inference that she is still sick.

(7) a. Anna has been sick. She is not going to school today.

b. Anna has been sick. It’s only recently that she has started going to school again.

There is, however, one piece of evidence that has often been used in the literature as a counterargument against a pragmatic approach to the continuative interpretation. This involves preposed for-adverbials. Dowty (1979, p. 343) suggests that when a for-adverbial is preposed, as in (8a), the invited interpretation is the continuative. However, when the adverbial is in a post-verbal position, as in (8b), the interpretation is either the continuative or the non-continuative.

(8) a. For four years, Daniel has lived in Boston.

b. Daniel has lived in Boston for four years.

Dowty takes this point as a strong indication of a structural ambiguity. That is to say, there must be some grammatical basis for the interpretive difference between (8a) and (8b). The argument is supported by many scholars (Iatridou et al., 2003; Mittwoch, 1988; Portner, 2011; Richards, 1982). Other scholars (Abusch & Rooth, 1990; Nishiyama & Koenig, 2004; Rathert, 2004) doubt whether a non-continuative interpretation is completely ruled out in the case of (8a). However, Abusch and Rooth (1990) and Nishiyama and Koenig (2004) only provide isolated sentences for which

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2 For example, Iatridou et al. (2003) traces the interpretive difference to distinct underlying syntactic structures. They distinguish two types of adverbials, ‘perfect-level’ and ‘eventuality-level’, with ‘level’ corresponding to scope. Perfect-level adverbials are situated higher on the syntactic tree than eventuality-level adverbials, reflecting the fact that the perfect has wider scope than the situation description. When preposed, the for-adverbial is perfect-level, and the right boundary of the time span it denotes is established by (and coincides with) the reference time of the perfect, hence the continuative reading. When occurring in a post-verbal position, the for-adverbial is eventuality-level. The right boundary of the time span denoted is contextually determined and may or may not be connected to the present.
judgments may differ, while the accuracy of Rathert’s (2004) interpretation of her naturally occurring data has been shown to be incorrect (Portner, 2011).

In view of this disagreement, I randomly selected and analysed 30 present perfects with preposed for-adverbials from the BNC. It turns out, contra Dowty (1979), that 2 of the 30 instances (7%) can be interpreted as unambiguously non-continuative. They are presented below:

(9) a. The lights are going on in Bucharest. For years its shops have been empty and dark (they had no bulbs).
   [BNC ABH 1450-1451]

   b. But, whilst she’s hiding, Anna sees the stranger bathe in a stream which she knows is contaminated with radio-active fallout. She still, however, does not make herself known to him. ‘May 25th. I suppose it seems wrong to be so afraid. […]
This man may be the only man on earth. I don’t know him. Suppose I don’t like him? Or worse, suppose he doesn’t like me? For nearly a year I have been here alone.’
   [BNC ALH 2503-2515]

In (9a), the fact that lights are going on in Bucharest overrides the continuative interpretation that its shops are still empty and dark. In (9b), Anna’s perception of the man’s presence in the immediate physical environment indicates that she is no longer alone. The existence of these examples in the corpus shows that specification by preposed for-adverbials does not necessarily lead to a continuative interpretation.

Within the remaining 28 instances, 16 are pragmatically ambiguous between a continuative and a non-continuative interpretation. In these cases, the discourse context does not provide sufficient information for disambiguation. (10) illustrates:

(10) Fred Perry and Virginia Wade issued the task at the official opening of the LTA’s new eight-court International Training Centre at Queen’s Club in London. ‘For

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3 This was done by conducting case-sensitive searches for For followed by either have or has in a five-word span and then manually selecting relevant instances from the results.
years British players have moaned at the LTA, now we have a proper national training centre and we await the real success story,’ said 1977 Wimbledon champion Wade.

With a proper national training centre available, it is not unlikely that British players are no longer moaning at the LTA, although it is also possible that they are still doing so now.

Only 12 instances (40%) in the dataset are clearly continuative. This interpretation may have been enforced by individual-level predicates (Carlson, 1977). Individual-level predicates are true throughout the existence of the subject referent and are therefore interpreted as true at present unless the context indicates that the subject has ceased to exist. Consider (11):

(11) For some years schemes have existed to encourage teachers to set out like Victorian missionaries to explore the strange and wild territory of industry and to convert its leaders to an acceptance of the virtues of education.

Alternatively, the continuative interpretation may have been enforced by contextual information in less predictable forms. In (12), the second utterance implies that the pretense is still valid at present:

(12) For centuries we have tried to pretend that this was not the case. We cannot, with the coming of moving film, go on with this pretense.

Finally, it is worth noting that all of the thirty examples with preposed for-adverbials can at least receive an interpretation that the situation spans an up-to-now interval, which I will refer to as the ‘up-to-now interpretation’. This is true even in the
case of the non-continuatives in (9a) and (9b): the time of the situation must be interpreted as closely connected to the present. This finding corroborates my claim that the continuative vs non-continuative distinction has a pragmatic basis. With its encoded meaning $e < r$, the present perfect predicate is merely concerned with the state of affairs lying before the present. Whatever is interpreted to be true at present is an inference made by the audience on the basis of his/her contextual assumptions. For present perfects with preposed *for*-adverbials, the up-to-now interpretation is the linguistically encoded meaning, while the continuative interpretation is a pragmatically inferred meaning. That is to say, the time of the situation *presented* extends up to and does not include the present, while the time of the *full* situation may or may not include the present. Attributing the continuative interpretation to (syntactico-)semantic factors would conflate the distinction between linguistic encoding and pragmatic inference, and the distinction between the situation presented and the full situation.

The remaining question is, why do preposed *for*-adverbials require an up-to-now interpretation? As shown by Example (13), present perfects with post-verbal *for*-adverbials (but not preposed ones) may express that the full situation is located at an indefinite time which does not lead up to the present – what Declerk (2006) calls the ‘indefinite-past interpretation’:

(13) Daniel has lived in Boston for four years (and in London for six years).

Therefore what a preposed *for*-adverbial really does is to link the present with the time of the situation, which may otherwise be detached from the present.

I believe the above phenomenon should be explained by the ways in which information is structured or packaged in discourse. Following Halliday (1967, 1985) and Kuno (1972, 1978), I maintain a distinction between two types of information in terms of their assumed recoverability by the audience. ‘Given information’ is information that the communicator assumes to be recoverable by the audience, contrasting with ‘new information’.

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4 The distinction between given and new information for the audience should not be confused with that for the discourse. Information that is new for the discourse (i.e., has not been mentioned previously) can be assumed by the communicator to be old for the audience (see Chafe, 1976; Halliday, 1967; Ward, Birner, & Huddleston, 2002).
that of manifestness defined in relevance-theoretic terms: a piece of information is recoverable by the audience if he/she is capable of mentally representing it on the basis of the preceding discourse and non-linguistic cues in the context (see Section 3.2.2). A general principle in English and many other languages is that given information tends to be placed in an utterance before new information (Ward, Birner, & Huddleston, 2002).

When a present perfect co-occurs with a for-adverbial, the time of the situation coincides with the time span denoted by the adverbial. Temporal interpretation of the utterance thus hinges on identification of the exact location of this time span on the temporal axis. Given the above characterisation of information structure in English, we would expect that, with a preposed for-adverbial, the exact location of the time span be readily recoverable for the audience. Since this location is not lexically specified by the for-adverbial, it is only reasonable that the time span extends up to, and is defined indirectly by the deictic centre, which itself is a recoverable time for the audience. This is how we derive the up-to-now interpretation. By contrast, when the for-adverbial is in a post-verbal position, the information it communicates does not have to be readily recoverable for the audience. There being no requirement on its exact location, the time span denoted by the for-adverbial can be interpreted either as a time extending up to the present or as an indefinite past time, depending on the contextual assumptions available. This explains why when decontextualised, present perfects with post-verbal for-adverbials are ambiguous between up-to-now interpretations and indefinite-past interpretations.

4.1.1.2 The resultative interpretation

In this section I look at the perfect’s resultative interpretation. As I have suggested in Section 2.1.1.2, the description of resultative perfects crucially relies on the definition of result. Three types of results can be identified in the literature. To illustrate with McCawley’s original example,

(14) I’ve caught the flu (so I can’t come to your party tonight)
The permanent-state result is a state of the event’s having occurred, while the implicated result is the conversational implicature *I can’t come to your party tonight*. These two types of results, as we have seen, are also available for non-resultative perfects and therefore should not be regarded as distinguishing criteria for resultative perfects.

I have also suggested that the notion of target-state result introduced by Parsons (1990) serves as a good starting point for characterising our intuitive interpretation of result in (14) – my present state of having the flu. In the following I offer a working definition of target-state result:

(15) For an event \( e \), a state \( s \) is its target-state result if and only if

(a) \( s \) immediately follows the termination of \( e \), and

(b) \( s \) is entailed by \( e \) but is not a permanent-state result of \( e \).

Two points need to be noted regarding this definition. The first is that only events, which are inherently goal-oriented, have target-state results. States and activities do not have target-state results because they do not have natural goals or endpoints. Secondly, not all events have target-state results. Consider the following experiential perfects culled from the literature:

(16) a. I’ve knocked.  
    (Michaelis, 1994, p. 131)

    b. We’ve now walked ten miles.  
    (Huddleston, 2002, p. 143)

    c. The Prime Minister has held his first press conference.  
    (Mittwoch, 2008, p. 327)

Although their situation types are clearly telic, (16a)-(16c) do not have target-state results. Out of context, nothing can be said about the states of affairs following the completion of the events. Apart from the permanent result (that the events have already occurred), the sentences do not give rise to any imaginable resultative entailments. A
target-state result interpretation is therefore only available for some, but not all, event types.\(^5\)

In what follows I provide a (non-exhaustive) list of event types that have target-state results. The classification is made on semantic grounds and can therefore be applied not only to English but also to other languages. For the sake of simplicity I will represent event types using a syntactic frame comprised of the subject \textit{he}, or a simple noun phrase, and a minimal predicate, which includes a verb and its object or complement. The present perfect is used to bring about the connection between an event and its corresponding target-state result, which are given after the arrows in nonfinite clauses. This syntactic frame serves as a basis on which more complex event descriptions can be analysed.

(i) Directed motion resulting in change of location (e.g. \textit{arrive, come, enter, fall, go, leave, move, pass, rise}):

a. He has come to see me. $\rightarrow$ he be here

b. The leaves have fallen onto the ground $\rightarrow$ the leaves be on the ground

c. He has gone. $\rightarrow$ he be gone

d. He has arrived in Sydney. $\rightarrow$ he be in Sydney

(ii) Creation and destruction (e.g. \textit{build (a house), break, create, destroy, explode, invent, kill, paint (a picture), write (a novel)}):

a. He has built a house. $\rightarrow$ there be a house built by him

b. He has created a drama. $\rightarrow$ there be a drama created by him

c. He has broken a glass. $\rightarrow$ the glass be broken

d. He has killed his wife. $\rightarrow$ his wife be dead

\(^5\) In the literature on the perfect there is another interpretation of target state, suggested in the works of Kratzer (1994), Pancheva (2003) and Rothstein (2008). On this interpretation, saying that a situation has a target state is equivalent to saying that the situation is telic. I do not follow this definition for it diverges from Parsons’ original point.
(iii) Change in internal property (e.g., decline, decrease, dry, expand, grow, improve, increase, shorten, shrink, wither):

a. He has improved his dancing skills. $\rightarrow$ his dancing skills be improved
b. The price has increased. $\rightarrow$ the price be higher
c. The figure has declined. $\rightarrow$ the figure be lower
d. The sweater has shrunk. $\rightarrow$ the sweater be shrunk

(iv) Initiation/appearance and completion/disappearance (e.g. appear, begin, commence, end, finish, stop, surface, vanish):

a. He has commenced his march. $\rightarrow$ he be marching
b. He has appeared. $\rightarrow$ he be present
c. The show has ended. $\rightarrow$ there be no show
d. He has vanished. $\rightarrow$ he be absent

(v) Carrying and transfer of possession (e.g. accept, buy, donate, give, lose, obtain, pay, receive, sell):

a. He has bought a ship. $\rightarrow$ he have a ship
b. He has received a letter. $\rightarrow$ he have a letter
c. He has given his wife a present. $\rightarrow$ his wife have a present
d. He has paid his bills. $\rightarrow$ his bills be paid

(vi) Transition between two clearly distinct mental states (e.g. accept, discover, forget, learn, realise, remember, understand):

a. He has discovered the truth. $\rightarrow$ he know the truth
b. He has learned how to swim. $\rightarrow$ he can swim
c. He has understood the point. $\rightarrow$ he understand the point
d. He has forgotten her address. $\rightarrow$ he cannot remember her address
Apart from the above semantic categories, in English there are certain lexical and syntactic patterns that correlate with target-state results, for example:

(vii) Verbs formed out of an adjectival base and the suffix -en (e.g., deepen, lengthen, lessen, redden, ripen, strengthen, weaken):

a. His faith has deepened. → his faith be deeper
b. His face has reddened. → his face be red(der)
c. The crop has ripened. → the crop be ripe
d. He has strengthened his will. → his will be stronger

(viii) Complex monotransitive clauses (e.g., drive someone mad, laugh oneself silly, make someone happy, paint the wall red, push the door open):

a. He has painted the wall red. → the wall be red
b. He has driven her mad. → she be mad
c. He has pushed the door open. → the door be open

(ix) Complex transitive verbs, where the two objects describe the same entity (e.g., appoint, elect, make (someone a hero), name, take (someone hostage), turn into):

a. He has been made a hero. → He be a hero
b. He has been named Daniel. → He be named Daniel
c. He has been taken hostage. → He be a hostage

These formal categories may overlap with some of the semantic categories of (i)-(vi). For example, events denoted by the verb lengthen (as in the shadows have lengthened) can also be grouped under category (iii). It can be seen that the event types presented above share a common feature: the lexical content of the result state sentence overlaps to a great extent with that of the event sentence. One of the internal arguments of the event sentence is the theme of the result state sentence, and the adjective describing the
result state typically has the same form as the past participle of the eventive verb. The vast majority of uncontroversial resultative perfects in the literature involve the above event types.

Let us now turn to the derivation of the resultative interpretation in context. I see a perfect as resultative if the situation is an event whose inherent semantic features allow for a target-state result. Moreover, the event is mentioned primarily by virtue of the persistence of its target-state result at the reference time, which I will call the ‘resultative inference’ in the sequel. When using the present perfect, the communicator’s main focus is not on the event’s inherent semantic features, but on the present persistence of its target-state result and/or that of any implicated results derived from such persistence. This property is what distinguishes the resultative from the experiential.

I argue that the perfect’s resultative inference is in nature either an explicature or entailment, depending on whether contextual information is needed to derive such inference. To see why the resultative inference may be an explicature, compare (17a) with (17b):

(17)a. Many people have been taken hostage in yesterday’s terrorist attack.

b. Many people have been taken hostage in the Iraq war.

(17a) invites a resultative interpretation. The target state of many people being taken hostage is inferred to be persistent at present. Such inference is the development of, and contains subparts of the utterance’s logical form. Moreover, it is pragmatically triggered, mainly by the recency of the past event: the target state is unlikely to be interrupted if the time span following the event’s completion has short duration. The reason why recency is a pragmatic trigger is that it does not necessarily entail the lack of

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6 Mittwoch (2008) regards the resultative inference as a conventional implicature. I do not follow her analysis for two observations. First, the nature of conventional implicatures is highly controversial, and some scholars simply deny the existence of this category (Bach, 1999; Potts, 2005). Second, the resultative inference is different from conventional implicatures discussed in the literature, which are associated with discourse connectives such as but and therefore, and lexical items expressing gender distinctions such as personal pronouns and honorifics. These types of conventional implicatures are procedural meanings on the relevance-theoretic account. By contrast, as will become clear in the following, the resultative inference is not a procedurally encoded meaning, but involves pragmatic enrichment.
interruption: those people who have been taken hostage might have been rescued already, depending on the possible range of inferences allowed by the context.

As for (17b), the preferred interpretation is experiential. The temporal distance between the Iraq war and the present implies that the target state has terminated before the present. If the utterance is made in the 21st century, we naturally interpret the event as mentioned not for the sake of the present validity of its target-state result, but for some less obvious reasons. Thus the resultative inference of the type in (17a) is an explicature because its recovery involves pragmatic enrichment. Contextual assumptions are needed to interpret the temporal distance between the time of the event and the present, as well as any possible occurrences of interruptions in between.

Alternatively, under special circumstances, the persistence of their target state at the reference time is an entailment of the perfect utterance. This happens when the target state obtains for all times after the event’s completion. (18) presents events of this type:

(18) a. He has killed his wife. $\rightarrow$ his wife be dead
b. The apples have all been eaten. $\rightarrow$ there be no apples
c. World War II has ended. $\rightarrow$ there be no World War II

The event types in (18) invariably express the termination of an entity’s existence. Their target states are irreversible, whatever the context may be. Thus with these event types, the resultative inference should be seen as an entailment.

Finally, on the present analysis, the value of the perfect state for the resultative perfect may not be the target-state result. According to our pragmatic principle, the proposition selected as the perfect state should always be optimally relevant to the discourse topic, be it an entailment, an explicature, or an implicature. To illustrate, let us reconsider Example (19):

(19) A: This is your final warning.
    B: Mom, you gave me another ten minutes.
A: No I didn’t. I have retracted it. You argued with me long enough. I changed my mind.

[SBC 019]

The present perfect in (19) has a resultative interpretation. The mother is urging the daughter to stop proofreading and turn to her algebra immediately. It can be seen that the perfect state that the mother communicates is not so much the target-state result *You no longer have these ten minutes*, as the present obligation *It’s time to stop doing what you are doing now*, which has more cognitive effects, or is more relevant in the given setting. In this case we may say that the value of the perfect state is a conversational implicature recovered from making further inferences on the basis of the persistence of the target-state result at the reference time.

### 4.1.1.3 The experiential interpretation

I now turn to the experiential interpretation. Experiential perfects are traditionally seen to express that the situation occurred, ‘once or more than once, within the speaker or writer’s experience’ (Zandvoort, 1952/1962, p. 62). A widely held opinion is that experiential perfects express that the situation occurred within an up-to-now time span (Comrie, 1976; Huddleston, 2002). This is illustrated by (20):

(20)a. I have read *Principia Mathematica* five times.  
(McCawley, 1971)

b. I’ve told you before, I adore your pipe.  
(Fenn, 1987, p. 80)

c. We’ve now walked ten miles.  
(Huddleston, 2002, p. 144)

All three examples are interpreted experientially. The frequency adverbial *five times* in (20a) indicates repetitive occurrence of the situation within an extended time period. In (20b), *before* indicates that the speaker is making general reference to all times prior to
the present. The *now* in (20c) marks the final endpoint of the event of waking ten miles. When co-occurring with the present perfect, these temporal adverbials invariably invoke an up-to-now span whose right boundary reaches up to the present and whose left boundary is contextually defined. The situation occurs either within this interval (as in (20a) and (20b)), or throughout this interval (as in (20c)).

The up-to-now time span, however, is much less salient for other experiential perfects discussed in the literature. Consider (21):

(21)a. Men’s hair has grown grey in a single night.
   (Zandvoort, 1952/1962, p. 62)

   b. Bill has been to America.
   (Comrie, 1976, p. 59)

   c. I’ve seen you on TV.
   (Fenn, 1987, p. 81)

   d. Many people have complained about this practice.
   (Mittwoch, 2008, p. 326)

Without temporal adverbials of the type in (20), it is hard to envision utterances in (21) as invoking an up-to-now time span. The situations are merely asserted to be true at an indefinite past time, following the present perfect’s semantics $e < r$ & $r = s$. The connection between the situation and the present, however established, is not by virtue of the situation’s occurrence within a readily apparent up-to-now time span.\(^7\)

In view of the difficulty of an up-to-now analysis with many experiential perfects, I will simply define the notion negatively, as the absence of continuative and resultative interpretations. By saying that a perfect is experiential I mean that the situation described by the perfect does not allow continuative or resultative inferences. Like the continuative and the resultative, the experiential interpretation is triggered by a number

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\(^7\) One could, of course, argue that the communicator is still envisioning an up-to-now time span when uttering the experiential perfects in (21). Nevertheless, this point would be very difficult to prove or disprove. Furthermore, it would blur the distinction between experiential perfects on the one hand, and resultative and continuative perfects on the other, for the latter can be also described in the same way.
of linguistic factors. Here I will discuss them briefly for they will be useful for the
corpus-based analysis discussed in Chapters 5 and 6.

Consider, first, the influence of situation types. Atelic situations (which by
definition do not have target-state results) invite experiential interpretations if the
continuative inference is disallowed by the context, as shown in (22):

(22)a. Activity
   For example, one exercise which I have used in class is a play called Justice by
   John Galsworthy.
   [BNC A06 1371]
   b. State
   Many a time I have wanted to ask her about this, and thought it wrong.
   [BNC AD1 812]

Some events, despite their telicity, do not give rise to any target-state result. Out of
context, nothing can be said about the state of affairs following their occurrence –
except that they have already occurred. These include such semantic categories as:

(i) Cognitive processes (e.g. dream of, feel, hear, notice, observe, perceive, see, think
of)
   a. A voltage-dependent block of sodium channels in elevated [Ca2+] has been
      observed.
      [ARCHER 1975hill.s8b]
   b. Katelyn has noticed that Shia is easily frustrated
      [COCA Magazine Today’s Parent]

(ii) Speech acts (e.g. argue, ask, comment, declare, mention, say, suggest, tell)
   a. …but many authors have commented that the germ spores of the Allium rusts
      are indistinct
      [ICE-GB W2A 028 32]
b. As Crick (1976: 123) has argued, ‘criminology (like anthropology), is largely concerned with systems of classification’.
[BNC A0K 165]

(iii) Punctual, momentary events (e.g. blink, fire (a gun), hit, kick, kiss, nod (one’s head), sneeze, touch)

a. We see he has nodded at Pazzi, who takes us to the door of the salon
[COCA Fiction Hannibal]

b. And every time since then when I have kissed you…that ‘anything’ has grown intense …
[BNC HA5 1746]

The perfect also receives an experiential interpretation when the clause contains linguistic elements that explicitly shift the focus to the occurrence of the situation in the past, as opposed to its consequences at the reference time. For a comprehensive overview of these elements, the reader is referred to Fenn (1987), Michaelis (1994) and Mittwoch (2008). In the following I will only mention several major categories. As can be seen from the given examples, the presence of these elements cancels the resultative interpretation, even though the event type itself is compatible with a target-state result.

(i) Temporal adverbial denoting a time interval whose right boundary overlaps or reaches up to the reference time (e.g., before, in the past, up till now).

I’m going to say the same thing I have said before
[COCA Spoken CNN Crossfire]

(ii) Frequency adverbials (e.g., occasionally, sometimes, twice) and quantified determiners (e.g., many, best, first)

a. I mean I’ve cut it off a few times
[ICE-AUS S1A 002 17]
b. But it is a powerful illusion, and attracts support from some of the best brains Cambodia has produced.
[BNC A45 119]

(iii) Elements that specify ‘actualisation focus’ (Declerck, 2006), that is, why, where and how the situation took place, or who was involved in it. These include wh-question words, manner adverbials, agentive phrases and so on.

a. ‘Who has taken them?’
[BNC BMX 977]

b. ‘The fact that the regime has so quickly and so completely imploded in East Germany could risk a reunification of Germany almost by default before long,’ one diplomat said.
[BNC A9N 101]

c. This has been initiated by BBC Television, Drama Group and the Writers Guild
[BNC A0E 488]

(iv) Interrogative clauses, which shifts the focus from the result to the situation’s occurrence or non-occurrence in the up-to-now time span (see Dahl & Hedin, 2000, p. 385ff)

a. With the iPad, have you stopped buying books?
[COCA News USA Today]

b. But the curse has been lifted. Hasn’t it?
[COCA Fiction The Legend of the Whiney Man]

It is important to bear in mind that a clear-cut conceptual distinction between experiential, resultative and continuatives does not entail that a perfect utterance can always be assigned to one of the three interpretations in a given context. In Section 4.1.1.1 we have seen that the sentence Anna has been sick can be used in a context to express that Anna is still sick (as in Anna has been sick so she is not going to school
today), or in an entirely different context to express the opposite (as in Anna has been sick and it’s only recently that she has started going to school again). The perfect utterance itself is open to whether the time of the situation continues to the present. Consequently, a perfect utterance is ambiguous between experiential and continuative interpretations when the context neither enforces nor cancels the continuative inference, as shown in (23):

(23) The revelation that one of former Liberal leader John Hewson’s staff members has been organising a pro-Republic lobby group has triggered the latest round of debate.

[ICE-AUS S2B 014 7]

The example appeared in broadcast news. The situation (which is presented as in progress in the recent past) can be interpreted as either reaching up to the present or still ongoing at the present. This type of ambiguity is only logical on my analysis: the present perfect only makes an assertion regarding the state of affairs prior to the present; it is not concerned with the nature of the state of affairs at present.

There is also ambiguity between experiential and resultative interpretations. This would occur when the event is compatible with a target-state result, but when it is not possible to determine whether the communicator’s focus is on the event or on the target-state result (and/or its consequences). Consider, for example, (24):

(24) A: She’s had nose surgery
   B: I can’t tell if anyone’s had nose had a nose job
   A: She has Yeah Look at her nose

[ICE-AUS S1A 082 170-172]

Nose surgery always entails a physical change, apparent or otherwise. There is little doubt that the communicative focus is on a present state which results from this change (as shown in the directive Look at her nose). However, the resultative interpretation of
B’s utterance is weakened due to the lack of knowledge of the specific result. Ambiguity between experiential and resultative interpretations is also evident in the interpretation of (25):

(25) A: It’s a good thing what you’d like to happen to you. Oh I think it’s a good idea, donating organs and everything
   B: It’s like years of it’s it’s years of thought that have gone into it you know

[ICE-AUS S1A 055 314-319]

Here it is difficult to decide whether the communicative focus is on the event or on the target state. The cleft construction selects the theme (years of thought) as the focal element, foregrounding the inherent properties of the event, whereas the immediate context is more concerned with the possible implications of the event (as reflected in what you’d like to happen to you). It can be seen that foci on the event and result component are not as mutually exclusive in the broad context of language use. Ambiguity of this type must be taken into account in the analysis of naturally occurring examples.

Let us now look at the value of the perfect state for experiential perfects. I argue that typically the experiental state (that the situation has been ‘experienced’ by the subject referent, or that the situation has already occurred in the past) does not qualify as the perfect state because it does not significantly improve the audience’s representation of the world. Being of limited cognitive effect, the experiential state does not always satisfy the requirement of optimal relevance and is not always selected as the value of the perfect state. To interpret the current relevance of experiential present perfects, the audience often needs to make an inference by enriching the utterance’s logical form with specific contextual assumptions. Consider the following examples:

(26)a. You know what it’s like to be terrified? Have you ever been terrified? I mean X that’s X a pretty scary thing, isn’t it? Being terrified is a very very scary word especially if you’ve experienced it.

[SBC 021]
b. Conservative councilors proposed the card at a policy and resources committee meeting on Monday of last week as part of a wholesale review of poll tax payment. But the chairman of Brent Against The Poll Tax, Theresa Dean, slated the proposal, saying: “This is a bribe to lure people into paying the poll tax.” Currently there are 70,000 Brent residents who have not made any payment while over 60,000 have made only one. Ms Dean does not think the offer of the card will bring non-payers “in from the cold”.

[ICE-GB W2C 009 50]

c. Pollution and damage are exported from donor countries to innocent downwind third parties. Thus, it has been argued, much of the sulphur dioxide emitted from chimneys and power stations in the UK, France and West Germany is eventually deposited over Scandinavia, causing great damage to freshwater lakes and rivers.

[ICE-GB W2B 030 79-80]

The examples instantiate typical experiential interpretations. None of the situations can be construed as continuing at the time of utterance; the resultative interpretation is equally unlikely, as indicated by the self-evidently experiential verb experience in (26a), the quantified subject noun phrases over 60,000 and only one in (26b), and the speech act verb argue in (26c). On closely examining the linguistic contexts, we find that for (26a), the value of the perfect state (or the nature of current relevance) is the present state of knowing what it is like to be terrified. For (26b), it is the implicit message that the poll tax payment is not popular and Brent residents are generally reluctant to pay. Finally, (26c) conveys a somewhat ‘evasive’ type of current relevance: the present validity of a previous argument. The utterance invites the inference that the argument is worth considering or evaluating in the current research context. The three examples above illustrate an increasing level of abstractness in the nature of the perfect state, with those of (26a) and (26b) being more concrete and easier to access, and that of (26c) more abstract and less readily accessible. Nevertheless, these examples have in common that the perfect state is implicitly conveyed and is built on highly specific contextual information. Based on these observations, I suggest that the value of the perfect state is typically an implicature with the experiential perfect.
4.1.1.4 Summary

To summarise the discussion in this section, the variability of perfect interpretations must be traced to different forms of inferences that can be made about the state of affairs at the perfect’s reference time. These inferences are for the most part pragmatic in nature, because their recovery rests on the audience’s existing contextual assumptions in discourse comprehension. The logical form of the perfect utterance alone is insufficient to determine its interpretation. Semantic factors such as situation type and temporal specification cannot be considered in isolation from the broader discourse context or from communicators’ world knowledge. The continuative, resultative and experiential interpretations of the perfect are essentially the outcome of a pragmatic inferential process in which the audience integrates the utterance’s logical form with contextual assumptions. A perfect utterance may be pragmatically ambiguous between two interpretations, or vague, in the absence of sufficient contextual information. Ambiguity here is not clearly distinguishable from vagueness as the various interpretations can be united by a single, uniform perfect meaning.

The pragmatic inferential process by which perfect interpretations are derived falls into two broad types. The first type yields explicatures, which are developments of, and contain a significant portion of the utterance’s logical form. The continuative and resultative inferences are accounted for by such a process. The second type involves a much greater amount of pragmatic enrichment. Its outcomes are implicatures, whose propositional contents are clearly differentiated from the logical form and tend to vary drastically across contexts. The second process is very often involved in the interpretation of experiential perfects. Both explicatures and implicatures can be selected as the value of the perfect state as long as they satisfy the requirement of optimal relevance to the discourse topic in a given context.

Finally, a word should be said about the hot news interpretation. On the present analysis, the hot news perfect is best seen as conveying the assumption that the situation is of informational value for the audience. This message is an implicature: it is determined by non-linguistic factors including the communicator’s knowledge of the audience’s current mental state. As in the cases of other perfect interpretations, the hot news implicature is only one of the many possible forms of inferences that a present perfect may have in a certain context. A hot news perfect such as The Lakers have been
defeated! may express the perfect state *Its supporters are upset* if this implicature meets the audience’s expectations of relevance.

### 4.1.2 Co-occurrence with temporal specifiers

In this section I focus on the co-occurrence patterns of the present perfect with temporal specifiers. Recall that +THEN adverbials such as *yesterday, last year, the other day* and *some ten days ago* tend to co-occur with the simple past, but not with the present perfect (see Section 2.1.2). This tendency, albeit very strong in English, should not be regarded as categorical, given the occasional ‘violations of norms’ attested in both written and spoken language by previous research and by my corpus investigation. Thus my main goal in this section is to work out a proposal which accounts for both typical, unmarked co-occurrence patterns as well as deviations therefrom.

Relevant to the discussion is the classification of temporal adverbials in terms of semantic features. I first draw a basic distinction between ‘anchored’ and ‘unanchored’ temporal adverbials. Anchored adverbials make manifest a ‘temporal anchor’, a time point or interval whose location on the temporal axis is recoverable by discourse participants. The temporal denotation of the adverbial is always related to the anchor somehow. For example, *yesterday* is an anchored adverbial because its temporal denotation (‘the day before today’) relates to the deictic time, which is itself a recoverable time for interlocutors in a given context. Similarly, *in 1900* is an anchored adverbial because its denotation (‘at some time within the year 1900’) is defined by the Gregorian calendar system. Anchored adverbials can be found in all of the three adverbial categories discussed in Section 2.1.2. The majority of them relate to the deictic time:

(i) +THEN (typically co-occur with the simple past):

*long ago, five years ago, yesterday, the other day, in 1900*

(ii) ±THEN (co-occur with both the present perfect and the simple past):

---

8 My understanding of temporal anchor differs slightly from Declerck (2006). According to Declerck, anchored adverbials are always deictic, their denotations depending in some way or other on the time when the communication takes place. I do not see it this way. An adverbial such as *in 1900* is anchored in that it relates to a recoverable time. However, the location of this time on the temporal axis is independent of any particular speech events, which means it is non-deictic.
Unanchored adverbials, on the other hand, do not relate to any time point or interval with a recoverable location. These include the three temporal quantifiers *always, ever* and *never*, frequency adverbials (e.g. *twice, sometimes, occasionally*) and duration adverbials (e.g., *for five years, in ten days, within a year, over time*). Out of context, they do not invoke any time that can be pinned down on the temporal axis. Unanchored adverbials invariably fall into the ± THEN category and are compatible with both the present perfect and the simple past.

The notion of temporal anchor is implicated not only in the semantics of temporal adverbials, but also in that of grammaticalised expressions of time. On a Reichenbachian account, tenses are anchored by the reference time \( r \), the time referred to, which is by definition a recoverable time for discourse participants. The simple present and the present perfect in English are both anchored by the deictic time, whereas the simple past and the pluperfect are anchored by a recoverable past time. The past-anchoring effect of the simple past explains its similarity to definite noun phrases. As Partee (1973, 1984) points out, in interpreting the simple past, the audience always needs to be aware of the time the communicator is referring to. The occurrence of the situation is not merely true of the past, but of a particular time in the past, which the communicator assumes to be recoverable for the audience. For example, the following utterance can be uttered to initiate a conversation, without any previous discourse:

(27) My girlfriend broke up with me.

In (27), the time of the situation is not specified by any linguistic means. However, the communicator assumes that the audience can infer its location on the temporal axis by making inferences from non-linguistic cues in the context. The situation is therefore anchored to a particular past time. The utterance is only fully interpretable when the audience is able to recover the location of this time.
I argue that the strong tendency for the present perfect to avoid specification by +THEN adverbials follows from a general principle: when a situation has more than one temporal anchor, they must always be connected in some way – via either inclusion or adjacency. This principle is perhaps cognitively motivated: we cannot represent a situation as belonging to two independent, disconnected times just as a camera lens cannot have two foci. Since the present perfect anchors a situation to the deictic time, any anchored adverbial co-occurring with it should, as a rule, specify a time that either includes or abuts the deictic time. +THEN adverbials such as long ago, last year and yesterday are therefore excluded. On the other hand, ±THEN and –THEN adverbials are compatible with the present perfect because when they are anchored, the anchor always includes or abuts the deictic time.

Notably, the principle stated above is not unique to the present perfect, but applies to collocation of temporal expressions in general. It predicts various kinds of semantic and pragmatic infelicities, including the following:

(28)a. ??He was at home tomorrow.
   b. ??At seven, Chris had left at six.

The simple past in (28a) anchors the time of him being at home to a past time disconnected from the temporal anchor specified by tomorrow. The utterance is semantically infelicitous in the absence of independent context-based justifications.9 (28b) is an example discussed in Klein (1992). The time of the situation is anchored by at six, while the pluperfect is anchored by its reference time, which is specified by at seven. There is nothing in the semantic structure that rules out the utterance. Rather, it is pragmatically odd due to the lack of connection between the two temporal anchors.10

9 The apparent conflict between the simple past and tomorrow can be resolved if the sentence is interpreted as an indirect speech, as in By next week he will be claiming that he was at home tomorrow (Comrie, 1976, p. 32).
10 Regarding non-present perfects with +THEN adverbials, I have suggested in Section 3.2.2 that a sentence such as He had lost his key while he was running home receives an eventive interpretation as a result of aspectual coercion triggered by the adverbial clause in conjunction with our world knowledge. Thus the utterance as a whole has the structure e = r. The temporal anchor established by the adverbial clause includes e, and in turn includes the temporal anchor of the pluperfect.
The principle of connection between two temporal anchors is only a general tendency characterising the collocation patterns of temporal expressions. It may be affected by certain linguistic factors and/or speaker considerations. As I have briefly mentioned in Section 2.1.2, the constraint on +THEN adverbials with the present perfect is not equally strong for every member of this adverbial category. To see this more clearly, let us examine the results of Elsness’s (1997) elicitation test, in which informants (undergraduate students from two British and American universities) were asked to judge the acceptability of sentence pairs such as I have seen him yesterday/I saw him yesterday, on a scale from 1 (‘completely unacceptable’) to 5 (‘completely acceptable’). Table 4.1 represents the average acceptability scores for the three +THEN adverbials in the test, yesterday, last night and long ago.

**Table 4.1** Acceptability scores of co-occurrences of three +THEN adverbials with the present perfect and the simple past in Elsness (1997). Statistical difference between British and American informants.

<table>
<thead>
<tr>
<th></th>
<th>Present perfect</th>
<th>Simple past</th>
<th>Statistical difference</th>
<th>Statistical difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BrE</td>
<td>AmE</td>
<td></td>
<td>BrE</td>
</tr>
<tr>
<td>yesterday</td>
<td>1.4</td>
<td>1.4</td>
<td>no</td>
<td>5.0</td>
</tr>
<tr>
<td>last night</td>
<td>1.3</td>
<td>1.4</td>
<td>no</td>
<td>5.0</td>
</tr>
<tr>
<td>long ago</td>
<td>3.1</td>
<td>2.3</td>
<td>yes</td>
<td>4.9</td>
</tr>
</tbody>
</table>

It can be seen that although the preferred verb choice with the three adverbials is the simple past, long ago with the present perfect is judged by both BrE and AmE speakers as more acceptable than yesterday and last night.

I suggest that the results in Table 4.1 should be explained by interaction between the general collocation principle discussed above and the level of vagueness/distinctness of the temporal anchor in question. To facilitate the discussion, I say that an anchored adverbial is ‘precisely anchored’ if it specifies a time point or interval whose precise location is recoverable. In such a case, the temporal denotation is a distinct time unit that can be clearly separated from other time units. I say that an anchored adverbial is
‘vaguely anchored’ if it is otherwise. The distinction between precisely and vaguely anchored adverbials cross-cuts the distinction between +THEN, ±THEN and –THEN, as shown in Table 4.2:

<table>
<thead>
<tr>
<th></th>
<th>+THEN</th>
<th>±THEN</th>
<th>–THEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precisely anchored</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yesterday</td>
<td>today</td>
<td>at present</td>
<td></td>
</tr>
<tr>
<td>last night</td>
<td>this morning</td>
<td>now</td>
<td></td>
</tr>
<tr>
<td>in 1900</td>
<td>this month</td>
<td>since 1999</td>
<td></td>
</tr>
<tr>
<td>five years ago</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaguely anchored</td>
<td>long ago</td>
<td>recently</td>
<td>up till now</td>
</tr>
<tr>
<td>some years ago</td>
<td>just now</td>
<td>so far</td>
<td></td>
</tr>
<tr>
<td>the other day</td>
<td>already</td>
<td>as yet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in the past</td>
<td>before</td>
<td></td>
</tr>
<tr>
<td></td>
<td>before</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Among the vaguely anchored adverbials in Table 4.2, long ago, some years ago and the other day denote vague past times disconnected from the present. Recently and just now also have vague denotations, which, however, may be seen as connected to the present due to temporal closeness. Already, in the past and before are similar to up till now, so far, as yet and before now in that the left boundary of the time interval denoted is vague. By contrast, the times denoted by precisely anchored adverbials are either well-defined time points (as in at present and now) or time intervals with two well-defined boundaries (as in yesterday, today and since 1999).

Generally speaking, the more vague a time is, the more difficult it is to recover its location on the temporal axis, and the weaker its anchoring effect. When the present perfect is specified by vaguely anchored +THEN adverbials such as long ago, the situation cannot be pinned down to a precise position and can still be seen as essentially anchored by a single time, the deictic time. In comparison, a precisely anchored +THEN adverbial such as yesterday has a much stronger anchoring effect. Its co-occurrence
with the present perfect is therefore a more serious violation of the general collocation principle.

The above observation is supported by corpus findings. In what follows I present some preliminary results for a distributional analysis of co-occurrences of +THEN adverbials with the present perfect. The results are based on interrogation of several large-scale corpora, which were used in view of the highly atypical nature of the pattern under investigation. These include the British National Corpus (‘BNC’), the Corpus of Contemporary American English (‘COCA’), the Australian section of the Corpus of Global Web-based English (‘GloWbE-AUS’) and the Corpus of Historical American English (‘COHA’).11

The four corpora were accessed via their online interfaces, which, unfortunately, only allow searches for relatively simple syntactic forms. This means tokens generated therefrom could not have been exhaustive, as it was not possible to determine the exact position of the temporal adverbial in the sentence. However, limitations on the range of possible syntactic forms should, in principle, not affect the relative distribution of the two types of +THEN adverbials that we are interested in. Table 4.3 presents the frequency findings derived from searching for has followed by ago or yesterday within a five-word span and then manually selecting the relevant tokens. I restricted the search to the third person singular because searching for have returns too many irrelevant tokens, mainly non-present perfects of the type He could have done that long ago.

11 The BNC is a 100-million-word synchronic corpus, representing BrE of the latter part of the 20th century. The American COCA is also synchronic but features a larger collection of texts (450 million words, equally divided between five registers). Both the BNC and COCA contain transcriptions of unscripted spoken conversations. GloWbE-AUS is a 100-million-word collection of web-based texts, representing AusE. COHA is the only diachronic large-scale corpus examined. The 400-million-word corpus spans the 200 years from 1810 to 2009 and is balanced between four written registers. For information about the BNC, see http://www.natcorp.ox.ac.uk/. Links to the three other corpora can be found on Mark Davies’s corpus website at http://corpus.byu.edu/.
Table 4.3 Co-occurrences of the present perfect (in third person singular only) with selected +THEN adverbials (xxx ago and yesterday) within a five-word span in selected corpora

(a) BNC

<table>
<thead>
<tr>
<th></th>
<th>Written</th>
<th>Written to be spoken*</th>
<th>Spoken</th>
</tr>
</thead>
<tbody>
<tr>
<td>vaguely anchored</td>
<td>9</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>precisely anchored</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

* Texts in this category include scripts written for public speeches, interviews and news broadcasting.

(b) COCA

<table>
<thead>
<tr>
<th></th>
<th>Academic</th>
<th>Magazine</th>
<th>Fiction</th>
<th>Newspaper</th>
<th>Spoken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaguely anchored</td>
<td>10</td>
<td>13</td>
<td>16</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>Precisely anchored</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>20</td>
</tr>
</tbody>
</table>

(c) COHA (by register)

<table>
<thead>
<tr>
<th></th>
<th>Magazine</th>
<th>Fiction</th>
<th>Newspaper</th>
<th>Other non-fiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaguely anchored</td>
<td>53</td>
<td>81</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>Precisely anchored</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

(d) COHA (by time period)

<table>
<thead>
<tr>
<th></th>
<th>1800-49</th>
<th>1850-99</th>
<th>1900-49</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaguely anchored</td>
<td>18</td>
<td>56</td>
<td>54</td>
<td>39</td>
</tr>
<tr>
<td>Precisely anchored</td>
<td>7</td>
<td>9</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Although the low frequency of the co-occurrences does not lend itself to a fine-grained quantitative analysis, it is clear that vaguely anchored +THEN adverbials are much more frequent than precisely anchored ones in the corpora, especially in those
with a greater number of tokens. (GloWbE-AUS yields 54 vaguely anchored and 30 precisely anchored.) If we examine the individual lexical items in the former adverbial category, we see that the one most frequently used with the present perfect is *long ago*, with 7 tokens (64% of all vaguely anchored adverbials) found in the BNC, 47 (64%) in COCA, 29 (54%) in GloWbE-AUS, and 139 (83%) in COHA, suggestive of the idiomatic nature of the construction. Examples of other vaguely anchored adverbials include those referring to the distant past (e.g., *centuries/decades/years ago*) and those to more recent times (e.g., *a few days/hours/minutes ago*).

I also found precisely anchored adverbials of various forms, including *yesterday*, *1.5 hour ago*, *three days ago*, *a month ago* and *three years ago*. It is worth noting that the vast majority of these are found in spoken or semi-spoken registers, indicating association with online production. Furthermore, if we compare the four time periods in COHA, it appears that precisely anchored +THEN adverbials co-occur more frequently with the present perfect in earlier periods. This lends some support to Visser’s (1973, p. 2197) comment that instances of such co-occurrences may have been more common in earlier English, when there was not yet a strict demarcation between the simple past and the present perfect.

On the whole, we may conclude that vagueness in temporal reference increases the felicity of present perfects with +THEN adverbials. This is indicated by the higher overall frequency of vaguely anchored adverbials, and their wider popularity in writing than in speech.

It is important to note that when present perfects do co-occur with +THEN adverbials, be it precisely or vaguely anchored, the general collocation principle is overridden by the communicator’s focus on the situation’s strong current relevance. The co-occurrences can be fully interpreted as long as the audience is capable of inferring such relevance. Consider Examples (29a) and (29b), found respectively in academic writing and fiction:

(29)a. In Britain the most brutal, and wide ranging racism which occurs day after day is not the work of fascist minority parties but of Her Majesty’s Government. It is the racism written into, and demanded by, Britain’s immigration laws. New black immigration has long ago been stopped, but any black man or woman who wants
to bring dependents over, or be visited by relatives from home, is now afraid of what these people will have to suffer.

[BNC A6V 1584]

b. Coming close to me, he said, softly, “Listen, Harry... your father has landed at Ravenspur four days ago with six men...” My God, he is dead now, I thought. “What happened, Cousin?” My throat was dry, and the words croaked. He put his hand on my shoulder. “He is safe... and more.”

[COHA Fiction Fortune made his sword]

In both cases, the primary temporal anchor is the deictic time. As the discourse contexts illustrate, the focus of communicative attention is on the present state (a present world lacking new black immigration, and the father currently being in Ravenspur), as opposed to the exact temporal location of the situation.

Finally, a point needs to be made regarding dialectal variation. As I have suggested in Section 2.1.2, the degree of acceptability for long ago co-occurring with the present perfect tends to differ for speakers of different varieties of English (and scholars themselves alike). This is attested by Table 4.1, in which the average score reported by AmE speakers (2.3) is significantly lower than that reported by their British counterparts (3.1). Such variation can be seen as a part of the bigger picture of dialectal variation in speakers’ acceptance for specification of the present perfect or the simple past by certain temporal adverbials. Previous corpus-based studies comparing BrE and AmE (Elsness, 1997, 2009b; Hundt & Smith, 2009) have suggested a tendency for BrE speakers to show a stronger preference for the present perfect to the simple past. In Table 4.4 below I represent the findings of Elsness (1997), this time focusing only on those adverbials showing a statistically significant difference between the two varieties.
Table 4.4 Acceptability scores for co-occurrences of temporal adverbials with the present perfect and the simple past where a statistically significant difference is found between British and American informants (adapted from Elsness, 1997).

<table>
<thead>
<tr>
<th>Adverbial</th>
<th>Present perfect</th>
<th>Simple past</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BrE</td>
<td>AmE</td>
</tr>
<tr>
<td></td>
<td>difference</td>
<td>difference</td>
</tr>
<tr>
<td>long ago</td>
<td>3.1</td>
<td>2.3</td>
</tr>
<tr>
<td>recently*</td>
<td>4.5</td>
<td>4.1</td>
</tr>
<tr>
<td>just*</td>
<td>4.5</td>
<td>1.2</td>
</tr>
<tr>
<td>already</td>
<td>4.9</td>
<td>4.6</td>
</tr>
<tr>
<td>yet (interrogative)</td>
<td>4.9</td>
<td>4.8</td>
</tr>
<tr>
<td>always</td>
<td>4.4</td>
<td>4.1</td>
</tr>
<tr>
<td>ever</td>
<td>4.8</td>
<td>4.9</td>
</tr>
<tr>
<td>since xxx</td>
<td>4.8</td>
<td>4.7</td>
</tr>
<tr>
<td>today</td>
<td>3.9</td>
<td>3.5</td>
</tr>
</tbody>
</table>

* Adverbials for which two or more sentences were used in the elicitation test. The figures presented are averages.

It is interesting to note that the majority of adverbials in Table 4.4 are not precisely anchored: by our classification, long ago, recently, just, already and yet are vaguely anchored, while always and ever are unanchored. Moreover, the British-American difference is most remarkable with three vaguely anchored adverbials: just (BrE 4.5 vs AmE 1.2, with the present perfect), already (BrE 1.5 vs AmE 4.1, with the simple past) and yet (BrE 1.9 vs AmE 4.3, with the simple past). In these cases, there is clear indication that what is perceived by BrE speakers to be the functional territory of the present perfect is seen by AmE speakers to be that of the simple past. It thus appears that the dialectal variation in question is related to the absence of a temporal anchor with precise location in the sentence. To illustrate, in the case of yesterday, the situation is unquestionably anchored to the past, disconnected from the present. Correspondingly, speakers’ choice of the verb form is, as a rule, restricted to the simple past, following
the general principle of connection between two temporal anchors. However, if the temporal adverbial denotes a vague time, as in the case of just, it is not clear whether the situation is anchored to a time connected to the present or not, and speakers therefore have greater freedom in choosing the corresponding verb form. I will explore other linguistic and non-linguistic mechanisms underlying this dialectal variation in Section 4.2.1.

4.1.3 Present existence

Let us now turn to the third set of linguistic facts discussed in Chapter 2, the strong tendency for the present perfect to have a subject referent that is alive or existent at present. We will see that our pragmatic principle nicely accounts for this tendency.

I begin with three well-known sentences concerning famous personages:

(30) a. ?? Frege has been frightened by many people.
(McCawley, 1971)

b. ?? Einstein has visited Princeton.
(Chomsky, 1971)

c. ?? Gutenberg has discovered the art of printing.
(McCoard, 1978)

The infelicity of sentences in (30) is essentially pragmatic, for the temporal constitution of the situation is congruent with the semantics of the present perfect. My view is that all such pragmatically infelicitous uses of the present perfect are due to failure to satisfy the criterion of optimal relevance between the discourse topic and an inferentially possible present state.

In Section 3.2.3 I have suggested that, from a context-dependent perspective, topic can be defined in a uniform fashion for both individual sentences/utterances and larger discourse units. Unless otherwise specified, the topics of decontextualised sentences are marked by their subjects, while the predicates are what are asserted about the subjects (Quirk et al., 1985, p. 79). In the absence of a larger discourse context, discourse topic
can be seen as the same as sentence topic. Thus (30a)-(30c) are most naturally interpreted as about certain qualities of famous personages, for example, ‘Frege’s disposition’, ‘Einstein’s whereabouts’ or ‘Gutenberg’s achievements’. These topics do not give rise to a present state inference because deceased individuals do not have any quality that lasts until the present. Alternatively, the explanation can be pursued the other way around: whatever we may infer about the present state is not relevant enough to the topic defined by the sentence’s subject. In relevance-theoretic terms, this lack of relevance is caused by the lack of cognitive effects, because knowledge of the present state does not create, strengthen or eliminate any assumptions about the qualities of a deceased individual.

The relevance-theoretic account also consistently predicts an observation discussed in Chapter 2, that a present perfect which describes a situation involving deceased individuals may sound more acceptable under certain conditions. As Inoue (1979) suggests, (30b) can be used to answer the question of who, among the Nobel Prize winners, has visited Princeton:

(31) A: Which Nobel Prize winner has visited Princeton?
B: Let’s see, Einstein has (visited Princeton), Yukawa has, Friedman has,…

The sentence’s increased felicity is apparently due to a higher degree of relevance to the discourse topic induced by the preceding question (which serves as a topical prompt on the question-based model). In the same way we can explain the increased felicity gained from converting the sentence into the passive voice (Princeton has been visited by Einstein). The situation allows us to infer an experiential present state of Princeton having been visited by Einstein. This experiential state satisfies our expectation of relevance, given the topic of ‘a certain quality of Princeton’, as defined by the sentence’s subject.

Similarly, we can envision an appropriate context for Gutenberg has discovered the art of printing. This may be where a person is playing a computer game that bestows upon the player the capacity to determine important scientific discoveries in a virtual human history, or, as suggested by Portner (2003, p. 506), where a supernatural being is orchestrating the progress of human civilisation. In these contexts, one may say:
(32) Now that Gutenberg has discovered printing and Berners-Lee has invented the World Wide Web, it’s time to lead these humans to the next thing…

In this context, the discourse topic that the communicator has in mind is arguably ‘the time to lead humans to the next discovery’. The present perfects invite two present state inferences: the availability of printing, and the existence of the World Wide Web. These inferences can be suggested to be relevant enough to the discourse topic, because the context implies that scientific discoveries temporally precede or presuppose one another, and the time to lead humans to the next discovery is determined by what is already in existence. However, in order to reconstruct such a discourse topic to which the sentence *Gutenberg has discovered the art of printing* is relevant, considerable processing effort is required on the part of the audience. Since relevance correlates negatively with the amount of processing effort needed, the sentence is interpreted as odd by default.

Consider, finally, cases where the subject referent is alive or existent but the sentence on the whole is interpreted as odd:

(33)a. ?? Barrack Obama has been born in the U.S.

   b. ?? America has been discovered by Columbus.

Out of context, the situations in (33) do not invite any easily conceivable present state inference, except for their target-state results: the present existence of Obama and America, respectively. Such existence is not relevant enough to the default sentence/discourse topic because of its insufficient cognitive effect. Knowing that Obama is alive and that America exists in no way contributes to our understanding of the qualities of these referents. Needless to say, (33a) and (33b) would also become more acceptable in a context of the type in (32). It thus appears that as long as it is worth our processing effort to reconstruct an appropriate context, we can always fully interpret present perfects that violate the present existence requirement.
4.2 Synchronic variation and diachronic change

In the foregoing sections we have seen how a discourse-pragmatic account informed by relevance theory sheds new light on several ‘present perfect puzzles’ that have been the subject of debate in many formal semantic analyses. In this section I address the construction’s synchronic variation and historical development as discussed in research with a more empirical orientation. My aim is to show how the proposed account meshes with established linguistic facts. Accordingly, the focus of the discussion will be on pragmatic mechanisms underlying general synchronic and diachronic patterns, as opposed to evidence for specific domains of variation and paths of change, which will be the focus of the next two chapters.

4.2.1 Synchronic variation

So far studies of dialectal variation regarding the English present perfect have mainly focused on the two ‘super-varieties’ of English, BrE and AmE. The well-known tendency for BrE speakers to use the present perfect and for AmE speakers to prefer the simple past can even be considered one of the ‘shibboleths of transatlantic grammatical differences’ (Hundt & Smith, 2009, p. 45; see also Biber et al., 1999, p. 463; Strevens, 1972, p. 48). Vanneck (1958) is one of the earliest studies devoted exclusively to this phenomenon. He observed that in spoken AmE the simple past is often used in contexts of the following types:

(34a) a. Yes, he’s here. I just saw him.
    b. Spain’s a nice country. I know some people who were there.
    c. Hurray! He did it again!
    d. Darn it! I did it again!

(Vanneck, 1958, p. 238)

The current relevance of situations in the above contexts could have also been captured by the present perfect. In (34a) and (34b), the present states expressed by *He’s here* and *Spain’s a nice country* are the pragmatically implicated results of the past events. In
(34c) and (34d), the events may not necessarily have any present result, implicated or otherwise. The current relevance lies essentially in their information value for the audience. Vanneck refers to the above uses as ‘colloquial preterites’, commenting that they are typical of contemporary spoken AmE. He suggests that in written AmE (and spoken and written BrE) the present perfect would be the preferred choice.

The present perfect’s dialectal variation has been further investigated by corpus linguists. In the pioneering work of Elsness (1997), comparison was made between the percentages of present perfects/simple pasts in all past-referring verbs in two (roughly parallel) collections of printed texts of BrE and AmE. It was found that the present perfect occurred more frequently in the BrE data (BrE 20.5% > AmE 10.6%), while the simple past was more popular in the AmE data (AmE 78.7% > BrE 63.7%). A more comprehensive corpus-based study was conducted by Hundt and Smith (2009). Aided with electronically readable corpora and data processing programs, they were able to represent the frequency of a particular verb form relative to text length, in terms of frequency per million words (‘pmw’). Four written English corpora were examined: the Lancaster-Oslo/Bergen Corpus of British English (‘LOB’), the Brown University corpus of American English (‘Brown’), the Freiburg-LOB corpus of British English (‘FLOB’), and the Freiburg-Brown corpus of American English (‘Frown’). The four corpora are parallel in their size and composition, the difference being the sampling period – LOB and Brown were sampled for the early 1960s, and FLOB and Frown for the early 1990s. The study found that at both time periods, the present perfect is more frequent in the BrE corpora than in the AmE counterpart, the former showing a consistent pmw frequency of around 4000 tokens pmw, and the latter around 3400. The frequency of the simple past, on the other hand, is over 8.5 times that of the present perfect in the two BrE corpora, but over 10 times in the AmE ones. In summary, the findings of Elsness (1997) and Hundt and Smith (2009) demonstrate that the dialectal variation in question is also evident in written language.

Clearly, the attested variation can be traced to the semantic structures of the two verb forms. On the present semantic analysis, both the present perfect and the simple past encode anteriority, locating the time of the situation prior to the present. They differ in their temporal orientation, that is, whether the situation is viewed by the communicator from a present or a past viewpoint, and in more technical terms, whether the communicator asserts a present state (whose content satisfies the criterion of optimal
relevance to discourse topic). Anteriority is a part of the truth conditional meaning of an utterance. *I went to church today* is true if and only if the time of my going to church precedes the time of making this utterance. By contrast, temporal orientation and the availability of a present state inference do not seriously affect the audience’s interpretation of the temporal constitution of the situation itself. *I have been to church today* and *I went to church today* may be used to describe the same past event, but not *I go to church today* or *I will go to church today*, which lack the anteriority meaning. This is the reason why in actual discourse the present perfect and the simple past can sometimes be interchangeably used to refer to the same state of affairs, leading to a neutralisation of their functional differences. What we are dealing with is a distinction between ‘semantic equivalence’ and ‘functional equivalence’, a distinction that lies at the heart of variationist sociolinguistics (Sankoff, 1988; Sankoff & Thibault, 1981; Tagliamonte, 2006; Weiner & Labov, 1983). At one level, two linguistic forms may have different semantic structures that account for all their potential meanings across an infinite range of contexts. At another level, they ‘may serve one, or more generally, similar discourse functions’ (Sankoff & Thibault, 1981, p. 208).

I further illustrate the neutralisation of the present perfect/simple past contrast with corpus examples. Consider the resultative perfect in (35a) and the experiential perfect in (35b):

(35)a. Last night a tearful Debbie admitted: Fred’s left me. I’m shocked by my husband’s behaviour.
[BNC CEM 1651]

  b. “Oh, come you an’ help with the painting of the hall! I’ve told you before; I’m tellin’ you again, we’ve no use now for a dilly-dallier!”
[ARCHER 1955ocsy.d8b]

The present perfects in these contexts can be replaced by their corresponding simple past forms without affecting at all the audience’s interpretation of the state of affairs communicated. When used in the context of (35a), the simple past sentence *Fred left me* would equally express that the event occurred in a (possibly recent) past time sphere, and that it leads to Debbie’s present abandoned state. Likewise, replacing the present
perfect sentence in (35b) with *I told you before* equally anchors the event to an indefinite past time and at the same time implies the undesirability of a dilly-dallier. It can therefore be suggested that the present perfect’s dialectal variation has its roots in the fact that the construction shares an important part of its semantic domain with the simple past. The two forms represent ‘two alternative ways of saying the same thing’ – (see Labov, 1972, p. 8; Sankoff, 1980, p. 55). The British-American difference can be seen as a result of competition between two linguistic variables in the same functional space.

Furthermore, the British-American difference can be seen as a product of the inferential model of communication. Recall that in Section 3.2.1 I argued that current relevance does not have to be linguistically encoded. Aided with sufficient contextual support, any past situation may be interpreted to be connected to the present in some way. The second type of current relevance, which is a pragmatic inference, is possibly one of the considerations involved in speakers’ choice of the simple past in contexts where both verb forms are acceptable. In these contexts, the relevance-seeking nature of human cognition leads the audience to infer the past situation’s current relevance based on his/her existing contextual assumptions, even though the relevance is not explicitly asserted. The communicator may therefore make use of the simple past to create the same set of cognitive effects that could have been created by the present perfect. In other words, the simple past assumes the function of the present perfect in language use via pragmatic inference.

I argue that pragmatically inferred current relevance is crucially involved in the choice of the simple past in spoken language. In face-to-face conversations, the communicative focus is usually on certain aspects of the immediate context. Past situations are often mentioned by virtue of their association with the ‘here’ and ‘now’ of interlocutors. The association is in many cases readily apparent, and is a part of interlocutors’ shared knowledge. The following example, presented earlier in this chapter, serves to illustrate:

(36) *A:* Is your cigarette out, ... everybody’s.
   
   *B:* Yeah, it’s out.
   
   *A:* You **smoked** it down into the … cork, didn’t you?
B: Pardon?
A: You **smoked** it down into the cork.

[SBC 011]

Here the connection between the present result (**The cigarette is out**) and the past event (**You smoked it down into the cork**) is already salient enough and it would almost seem superfluous had the communicator explicitly asserted the connection. In a seemingly paradoxical way, strong present orientation obviates the need for the present perfect.

As for the question of why exactly it is AmE, and not BrE, that has a stronger preference for the simple past, the explanation cannot be but somewhat speculative. AmE is known for its marked tendency to dispense with linguistic forms that are functionally redundant and grammatically omissible (Rohdenburg & Schlüter, 2009, p. 6). For example, corpus-based studies conducted by Rohdenburg (2009a, 2009b) show that, in the domain of nominal complementation, AmE favours the formally simpler variants without prepositions (e.g., *play a team, escape the prison, present us a picture*), whereas BrE prefers the more complex prepositional ones (e.g. *play against a team, escape from the prison, present us with a picture*). Similarly, non-reflexive (active) uses of verb phrases (e.g., *get into trouble, pledge, organise*) occur more frequently in AmE, while BrE has a greater acceptance for their reflexive uses (e.g., *I got myself into trouble, He pledged himself to the support of his club, They organised themselves to defend their rights*). It is therefore not surprising that AmE speakers would opt for the inflectional, formally simpler tense over the periphrastic tense in contexts where the two verb forms create similar cognitive effects.

Also relevant here is Elsness’s (1997, 2009b) argument concerning a stronger tendency in AmE to level the formal differences between the present perfect and the simple past (also noted by Defromont, 1973). The distinction between the simple past and the past participle is sometimes ‘confused’ in both ways, with certain verbs having an -i- stem (e.g., *shrink, sing, sink, spring, swim*) (Biber et al. 1999, p. 398), and the use of the -u- form for the simple past is more common in AmE than in BrE, especially in colloquial usage (Collins & Peters, 2004, pp. 595-597). Moreover, the auxiliary *have* appears in speech as highly reduced forms (*’ve or ’s*), which are sometimes even below
auditory level. A higher degree of phonetic similarity with the simple past helps to explain why the present perfect is less popular in spoken AmE.

4.2.2 Diachronic change

Needless to say, the present state of the present perfect’s synchronic variation is also implicated, or partially explained, by long-term historical changes leading up to the present state. This section examines several diachronic facts. I will mainly be concerned with a grammaticalisation process that led to the emergence of the English present perfect with its modern meaning. The discussion will help to set the background for an investigation of the construction’s further development in the Late Modern English period, the results of which are presented in Chapter 6.

Like its counterparts in many Indo-European languages such as French, Spanish, Dutch and German, the English present perfect originated as a transitive resultative construction denoting a state of possession. Non-present perfects in Modern English can invariably be traced to this construction. To illustrate, *I have my work finished* in Old English would mean ‘I have or possess my work in a done or finished condition’. The focus was predominantly on the current state of the object, and from the state was inferred the past event. The construction was used in possessive contexts, where *have* retained its lexical verb meaning, while the past participle acted as a complement to the object which may precede it, and its adjectival nature is reflected in the fact that it sometimes inflected for agreement with the gender and number of the object in accusative form. Further, the construction correlated with transitive verbs. With intransitive verbs, the result state of a past event was expressed by a corresponding *be* + past participle construction which still survives in Contemporary English with such verbs as *go, recover* and *change* (*he is gone/recovered/changed*) (Bybee et al., 1994, p. 54; Traugott, 1972, p. 94ff; Visser, 1973, p. 2819ff). Examples (37a) and (37b) are instances from Old English:

12 In an alternative account, de Acosta (2013) argues that the link between possession and Old English *have* + past participle construction is only indirect, on the ground that Old English *habban* was used not only to express possession, but more generally relations of pertaining, befalling and so on. On his view, it is these broad semantic relations that paved the way for the emergence of the *have*-perfect.

13 For studies documenting the historical evolution of the *havelbe* contrast, see Kytö (1997), McFadden and Alexiadou (2010), Rydén and Brorström (1987) and Zimmerman (1972).
(37) a. …and we habbað Godes hus inne and ute clætne berypte
       …and we have God’s houses inside and out completely despoiled
       (Wulfstan’s Address, Elsness, 1997, p. 260)

       b. gyt ge habbaþ eowre heortan geblende?
       yet you have your hearts blinded?
       (Gospels of Mark, Visser, 1973, p. 2189)

In the case of the resultative have + past participle, the state of the object is an entailment, not an implicature, of the past event. In (37a), the despoiled state of God’s houses is entailed by the action of despoiling the houses. The same past participle refers to the final state or inherent goal of an event as well as the event itself. Moreover, since the construction expresses some change applying to the object referent, it is implausible that the event is mentioned merely by virtue of its past occurrence. From this point of view, the result denoted by the resultative have + past participle qualifies my description of target-state result (see Section 4.1.1.2). Crucially, this result is lexically specified and its inference does not require any pragmatic enrichment on the part of the audience. A significant proportion of uses of have + past participle in Old English can be characterised in this way. Re-examining Detges’s (2000) data from Beowulf, I find that 58% (28 out of 48) of past participles occurring in the construction denote event types that I have suggested are compatible with target-state results.14

However, as Carey (1994) argues, the have + past participle construction in Old English also exhibited signs of grammaticalisation, a process which possibly predates the Old English period. This is seen from the occurrence of the past participles of speech act verbs (e.g. gesæd ‘talk’) and verbs denoting a change of mental state (e.g. ongiten ‘understand’). With these past participles, the object referent does not undergo any substantial change; rather, the change is predominantly in the subject. The focus of attention cannot be on ‘talked’ or ‘understood’ objects, but must be on the final state of

the subject, which is construed as standing in a relation of accomplishment with the event of talking or understanding. These two types of past participles account for, respectively, 55% and 35% of all instances of have + past participle in Carey’s Old English data drawn from the works of Alfred (c. 850) and Ælfric (c. 1050). Their robustness in Old English indicates that, even though on the whole the construction was still concerned with the result state, a semantic shift towards higher event focus (which is characteristic of the Modern English perfect) was well underway.

The Middle English period saw a number of changes in the construction’s co-occurrence patterns. Firstly, it was increasingly used with non-transitive verbs, a clear indication that objects were no longer a necessary component (concomitantly, the rival intransitive be + past participle construction underwent a gradual decline which continued into Modern English). Furthermore, have + past participle extended to states and activities – situations without inherent goals or final endpoints. The shift away from a focus on the result state is further manifested in the construction’s co-occurrence with temporal adverbials. In Carey’s study, temporal adverbials modifying have + past participle in the Old English data mainly denote the time of the result state, e.g., nu ‘now’. By contrast, frequency and duration adverbials (e.g., oft, ‘often’ and tile while ‘for a long while’) show higher percentages in her Middle English data.

The capacity to co-occur with an increased number of linguistic features entails a wider range of use, which in turn is associated with the construction’s higher textual frequency. In Elsness’s (1997) diachronic corpus frequency increase is evident from Old English through Middle English up until Early Modern English. The construction also underwent significant changes in its formal properties: a continued loss of inflection and a reversal of word order, both of which occurred as continuous processes spanning a long stretch of time (Fischer & van der Wurff, 2006, p. 138).

What the above changes indicate is a functional shift of have + past participle from a resultative construction denoting possession to one that expresses a past situation with current relevance. In order to avoid potential confusion created by using the same term ‘perfect’ for both the syntactic form and the corresponding meaning, I will use from this

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15 There is, in Carey’s data, a steady increase in the percentages of intransitive verbs occurring in the construction, from 1.6% and 3.8% in Old English (represented by selected works of Alfred and Ælfric), to 9.3% and 14.9% in Middle English (represented by Layamon’s Brut and Sir Gawain and the Green Knight).
point onwards the functional term ‘anterior’ as in Bybee et al.’s (1994) to refer to constructions expressing past situations with current relevance. Where an anterior is used, the focus of attention is not constrained to the final result state of an event (borne by either the object or subject), but extends to the inherent properties of a past situation and its continued impact. A crucial difference between resultatives and anteriors is that, with the former, the state predicated of the reference time is semantically encoded in the past participle; with the latter, such a state is not completely bound by the logical form of the utterance, but is recovered via pragmatic enrichment on the basis of relevance to the ongoing discourse. This semantic difference is reflected in the two constructions’ co-occurrence patterns. Resultatives are not compatible with states or activities which do not have inherent goals or final endpoints, whereas anteriors can combine freely with these situation types, since relevance can be derived from any aspect of the situation, not just its final result state. For resultatives, temporal specification must pertain to the final result state; for anteriors, it can be about the inherent temporal properties of the situation, such as its frequency and duration.

The semantic shift from resultatives to anteriors can be seen as a process of grammaticalisation in which pragmatic inference becomes encoded into the semantics of the construction. One influential approach to grammaticalisation is the usage-based approach developed in such works as Hopper and Traugott (1993/2003), Traugott (2011), Traugott & Dasher (2002) and Traugott and Heine (1991). Drawing heavily from Gricean pragmatics, it sees grammaticalisation as a product of language users’ active participation in the negotiation of meaning. On this view, semantic change is brought about by the ‘conventionalisation’ of pragmatic inference, or ‘invited inference’. The process begins with communicators using a linguistic construction which gives rise to an implicature in a specific context. If the implicature is accepted by a wider community it is likely to be generalised to other contexts. Eventually, the implicature becomes conventionalised as a new encoded meaning of the construction. A well-known illustration of this process is the history of as/so long as. In Old and Middle English the construction expressed essentially the temporal meaning ‘for the length of time that...’. It became associated with the condition meaning ‘provided that...’ in imperative contexts where the situation is construed as contingent (e.g., Keep it as long as you want). This invited inference gradually achieved greater salience. In Modern
English it became the only possible meaning in some contexts, indicating that a semantic reanalysis has taken place (Traugott & Dasher, 2002, pp. 36-37).

I argue that the relevance-driven inferential process plays an important role in the conventionalisation of invited inferences which brings about the shift from resultatives to anteriors. Since the audience will interpret an utterance in a way that satisfies his/her expectations of optimal relevance, the outcome of utterance interpretation is not necessarily restricted to the proposition expressed, but may be any optimally relevant inference in a given context. The communicator, on the other hand, may make use of a construction to communicate a meaning that is not encoded in the construction, but that he/she assumes to be relevant enough to be processed by the audience in a specific context. This meaning negotiation process is likely to have been involved in the early use of have + past participle with events involving change of mental states. Consider Example (38) from Old English:

(38) Da cwæþ he. Nu du þæt swa openlice ongiten hæfst.

Then said he: Now that you have so clearly understood this (idea).

(Alfred’s Boethius, Chapter XXXV)

In (38), although the present existence of an ‘understood’ idea is a legitimate inference following from the utterance, it is much less relevant to the audience’s present state than the fact that the audience has already accomplished the understanding process, ‘now you clearly understand this idea’. The lack of relevance of the result state borne by the object referent facilitated the shift of have + past participle from focus on the object to other aspects of the past situation.

The same mechanism underlies have + past participle’s extension to a wider range of situation types, including atelic situations and events that are not compatible with target-state results, such as speech acts and perception. Atelic situations do not have inherent endpoints; nor do they entail any inherent change. In order to fully interpret the state of affairs at the reference time, the audience may make a further inference based on the situation described using context-specific assumptions. The outcome of such process is a pragmatic implicature that satisfies his/her expectations of relevance to the ongoing discourse. For example, in (39) from Middle English,
(39) ‘For ye **haf trauayled,**’ quoth þe tulk, ‘towen fro ferre,

And syþen waked me wyth, ye arn not wel waryst

Nauþer of sostnaunce ne of slepe, soþly I knowe’

(*Sir Gawain and the Green Knight*, Part II)

‘For you have travelled,’ quoth the lord, ‘from afar,

and since waked me with, you are not well served

neither of sustenance nor of sleep, surely I know.’

the present perfect has an experiential interpretation. The situation expressed by the

intransitive verb *trauayle* ‘travel’ is dynamic and atelic, and has terminated before the

present. As the discourse indicates, the locus of relevance lies not so much in the

subject’s state of having completed the travel, as in the causal relationship between the

past situation and the state ‘you are not well served neither of sustenance nor of sleep’,

an implicated result of the situation. The type of experiential perfect with atelic situation

type in (40) probably facilitated the development of the continuative perfect: it would

only require temporal specification to strengthen the interpretation that the situation

continues to the present, as in (40):

(40) Peynes I soffur…þis humdrth yere I **haue hom borne**

Pains I suffer… this hundred years I have borne them

(*The Trental of Saint Gregory*, Visser, 1973, p. 2196)

Also consider the experiential perfect in Example (41):

(41) Bot of alle þat here bult, of Bretaygne kynges,

Aþ watz Arthur þe henest, as I **haf herde** telle.

Forþi an aunter in erde I attle to schawe,

þat a selly in siȝt summe men hit holden,

And an outtrage awenture of Arthurez wonderez.

(*Sir Gawain and the Green Knight*, Part I)

But of all that here built, of Britain the kings,
ever was Arthur highest, as I have heard tell. 
And so of earnest adventure I aim to show, 
that astonishes sight as some men do hold it, 
an outstanding action of Arthur’s wonders.

The situation described by the perception verb heren ‘hear’ is incompatible with target-state results. It does not entail any obvious internal change in the subject or the object. The context makes it clear that the present state communicated is an experiential state which results from the perception and which allows the communicator to show the adventure to the audience. The relevance of the perception lies in the implicature I am in a state of being able to tell you the adventure. Over time, association with context-induced implicatures consolidates the notion of current relevance. Notably, what is conventionalised is not the specific content of the implicatures, but the meaning that the situation stands in a relevant relation to some aspects of the discourse by virtue of its association with an implicature.

It can thus be seen that the grammaticalisation path from the (present) resultative have + past participle to the present perfect is motivated by a pragmatic inferential process governed by the principles of relevance. Language users will always select a more relevant, pragmatically-enriched interpretation if such interpretation is available in a specific context. As a consequence, the construction has spread into experiential contexts, which were mainly the functional domain of the simple past in Old English. The construction’s encoded meaning shifted from expressing the target-state result of a past event reflected in the object referent, to a more generalised connection between the past and the present. Inasmuch as the process involves the loss of the original lexical meaning of have (‘semantic bleaching’) and the development of a grammatical meaning, the construction embraces a procedural character: instead of expressing the easily graspable concept of possession, it encodes instructions on how the conceptual representation of a situation should be managed. Its interpretation requires a specific inferential path which links the situation itself and the present state. What has remained unchanged in the grammaticalisation process is (a) the construction’s present time orientation and (b) its stativity, which is attributable to its lexical source have.
4.3 Summary

In this chapter I have extended the proposed analysis to shed light on a range of linguistic data. I have shown that a discourse-pragmatic approach informed by relevance theory furnishes fresh insights for the three problems presented in Chapter 2, as well as general mechanisms underlying the present perfect’s synchronic variation and diachronic development.

I have first argued for a pragmatic basis for the variability of perfect interpretations. The three interpretations can be traced to different types of inferences about the perfect state allowed by the logical form of the utterance in conjunction with the audience’s contextual assumptions. For the continuative interpretation, a legitimate inference is the continuation of a situation or its habitual state. For the resultative interpretation, it is the persistence of the target-state result of a past event, with such result understood as a state entailed and immediately preceded by the event, but not as the permanent result that the past event has occurred. These two types of inferences are explicatures insofar as they contain parts of, and are developments of the perfect utterance’s logical form. Experiential perfects lack the continuative or resultative inference. For experientials, the inference about the perfect state is typically an implicature whose recovery is heavily reliant on the context.

The data presented in this chapter shows that without sufficient contextual support, the semantic features of co-occurring linguistic elements in the perfect utterance (or the ways in which they are combined) cannot ultimately determine the utterance’s interpretation. As a result, a perfect utterance may be pragmatically ambiguous between two interpretations. The variability of perfect interpretations can thus be seen as a reflection of the semantic underdeterminancy of the perfect state: what constitutes the value of the perfect state cannot be predicted from the logical form, but is governed solely by the proposed pragmatic principle of relevance.

Regarding the second problem, co-occurrence with temporal adverbials, my interrogation of several large-scale corpora of Contemporary and earlier English consolidates the previous observation that the constraint against +THEN adverbials such as yesterday, last week and long ago is not categorical. The occasional instances identified in the corpora are motivated by the communicator’s focus on the strong relevance of the past situation to the discourse topic. Pragmatic considerations thus
override a general principle which is responsible for the collocation patterns of various temporal expressions. According to this principle, if a situation is anchored – that is, its location on the time axis made recoverable for interlocutors – by more than one temporal expression, their denotations must be connected via either inclusion or adjacency. The general incompatibility between +THEN adverbials and the present perfect has to do with the fact that the present perfect anchors a situation to the present, and that +THEN adverbials anchor a situation to a past time disconnected from the present. In addition, the corpus data examined reveal another missing piece of the ‘present perfect puzzle’: vagueness of the temporal anchor reduces the infelicity of +THEN adverbial with the present perfect. Compared with the vaguely anchored long ago, precisely anchored adverbials such as yesterday, three days ago and last week are less acceptable with the present perfect. Dialectal variation (between BrE and AmE) is more pronounced when the present perfect co-occurs with a vaguely anchored adverbial.

The third problem, the strong tendency for the present perfect to have a subject referent that is alive or existent, is accounted for by the lack of relevance between possible present state inferences and the discourse topic (which is indicated by the subject in the case of decontextualised sentences, as determined by the information structure of English). The general infelicity of sentences with deceased subject referents of the type Einstein has visited Princeton arises from violation of the proposed pragmatic principle. The pragmatic nature of the infelicity is illustrated by the fact that the problematic present perfect sentences discussed in the literature can always be fully interpreted as long as the context allows a sufficiently relevant present state inference.

The discourse-pragmatic approach adopted in this study also enables us to consider variation and change concerning the present perfect in light of context-induced pragmatic inferences. Regarding the well-known British-American difference in their choice between the present perfect and the simple past, I have suggested that current relevance is not necessarily linguistically asserted, but may be induced by the context via pragmatic enrichment. Given sufficient contextual support, the simple past may also describe a currently-relevant past situation. The resulting neutralisation of the two verb forms in discourse serves as the functional basis for dialectal variation.

The relevance-driven inferential mechanism is also implicated in the historical process whereby the present perfect gradually developed its modern meaning. Language
users’ constant search for optimal relevance is responsible for the generalisation of have + past participle from a stative resultative expressing possession to an anterior expressing a past situation’s current relevance. Over time, semantically restricted target-state results gave way to pragmatically implicated results, and the present state communicated became a state that stands in an optimally relevant relation to the ongoing discourse. Current relevance thus became a part of the encoded meaning of the English present perfect.

My discussion so far has relied on a highly selective range of data featuring a few functional types. However, an analysis suffers from incomprehensiveness in the absence of a survey of the construction’s distribution and interpretations in a wider variety of naturally occurring examples. The goal of the next two chapters will be to examine such data and see what they might reveal further about the present perfect in Contemporary and earlier English.
Chapter 5 The English present perfect in Contemporary English corpora

In this chapter I present the results of a comprehensive corpus-based analysis of the present perfect in Contemporary English. I will examine synchronic variation across three varieties of English – BrE, AmE and AusE – and across various spoken and written registers. The analysis complements and expands the discussions in previous chapters to the extent that it further explores the nature of the present perfect’s current relevance, or, from an interpretive point of view, the nature of pragmatic inferences made about the present state. The approach adopted in this as well as the next chapter is primarily quantitative, starting with frequencies of occurrence of the present perfect form before analysing its interpretation in discourse.

So far there has been no shortage of comparative studies on the present perfect in Contemporary English using corpus data. Elsness (1997), Hundt and Smith (2009) and Schlüter (2000, 2002) investigated the frequency and use of the construction in several, mainly written, corpora of BrE and AmE.¹ Elness (2009a) was the first corpus-based study on the present perfect in AusE and New Zealand English. However, the search routine of this study was confined to sixteen frequent verbs due to the lack of tagged corpora. Other related corpus-based studies include Davydova (2011), Seoane and Suárez-Gómez (2013), Werner (2013) and van Rooy (2009), where comparisons were made between BrE and non-native varieties such as Indian and Hong Kong English. In addition, Tagliamonte (2000) examined present perfect marking in a creole English variety spoken in the Samaná peninsula, Dominican Republic, which retains features of earlier African American English.

The present study extends these existing works in the following respects:

1. It examines the present perfect’s interpretation in discourse, along with related register and dialectal variation.

2. It focuses on a wider range of registers, both spoken and written.

¹ These studies invariably made use of the Brown family of corpora. In Elsness (1997) and Schlüter (2000, 2002), parts of the London-Lund-Corpus were also used to study spoken conversation in BrE.
3. It is the first systematic and comprehensive corpus-based investigation of the present perfect in AusE.

I begin this chapter by presenting an overview of the corpus data (Section 5.1). Next I consider the distribution of the English present perfect (Section 5.2). This is followed by a detailed functional analysis of the construction in a selected database which comprises face-to-face conversations, news reports and academic writing. Attention is given to the construction’s interpretation and co-occurrence patterns with other linguistic elements (Section 5.3 with subsections). Finally I summarise the major findings (Section 5.4).

5.1 Overview of the data

The Contemporary English data are drawn mainly from the International Corpus of English (‘ICE’). The corpus was initially conceived by Sidney Greenbaum and colleagues in the late 1980s in an attempt to provide material for synchronic comparative studies of English worldwide (Greenbaum, 1988, 1991). It is designed to be representative of national/regional varieties of English used across geographically and culturally diverse countries/regions. The speakers and authors from whom texts were sampled were aged 18 or above, were either born in the country/region in whose corpus they are included, or moved there at an early age and received education through the medium of English. Each component of ICE comprises around one million words of English (600,000 spoken and 400,000 written), or a total of 500 texts, each of about 2,000 words. Compatibility across the component corpora is ensured by following a common corpus design, as shown in Table 5.1:

<table>
<thead>
<tr>
<th>Spoken</th>
<th>S1 Dialogues</th>
<th>S1A Private</th>
<th>Face-to-face conversations</th>
</tr>
</thead>
<tbody>
<tr>
<td>(300)</td>
<td></td>
<td></td>
<td>(90)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Telephone calls (10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Classroom lessons (20)</td>
</tr>
<tr>
<td>S1B Public</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Subcategory</td>
<td>Types</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>S2 Monologues</strong></td>
<td><strong>S2A Unscripted</strong></td>
<td>Spontaneous commentaries (20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unscripted speeches (30)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Demonstrations (10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Legal presentations (10)</td>
<td></td>
</tr>
<tr>
<td><strong>S2B Scripted</strong></td>
<td></td>
<td>Broadcast news (20)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Broadcast talks (20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-broadcast talks (10)</td>
<td></td>
</tr>
<tr>
<td><strong>Written (200)</strong></td>
<td><strong>W1 Non-printed</strong></td>
<td>Student essays (10)</td>
<td></td>
</tr>
<tr>
<td><strong>W1A Student writing</strong></td>
<td></td>
<td>Exam scripts (10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social letters (15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business letters (15)</td>
<td></td>
</tr>
<tr>
<td><strong>W1B Letters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>W2 Printed</strong></td>
<td><strong>W2A Academic writing</strong></td>
<td>Humanities (10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social sciences (10)</td>
<td></td>
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<td></td>
<td></td>
<td>Natural sciences (10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technology (10)</td>
<td></td>
</tr>
<tr>
<td><strong>W2B Popular writing</strong></td>
<td></td>
<td>Humanities (10)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Social sciences (10)</td>
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<td>Natural sciences (10)</td>
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<tr>
<td></td>
<td></td>
<td>Technology (10)</td>
<td></td>
</tr>
<tr>
<td><strong>W2C Reportage</strong></td>
<td></td>
<td>Press news reports (20)</td>
<td></td>
</tr>
<tr>
<td><strong>W2D Instructional writing</strong></td>
<td></td>
<td>Administrative writing (10)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skills/hobbies (10)</td>
<td></td>
</tr>
<tr>
<td><strong>W2E Persuasive writing</strong></td>
<td></td>
<td>Press editorials (10)</td>
<td></td>
</tr>
<tr>
<td><strong>W2F Creative writing</strong></td>
<td></td>
<td>Novels and short stories (20)</td>
<td></td>
</tr>
</tbody>
</table>
Within the 300 spoken texts, a division is made first between dialogues and monologues. Dialogues that occurred in private settings (e.g. face-to-face conversations and telephone calls) are differentiated from those that occurred in public settings, where a non-participating audience was present (e.g. broadcast interviews, parliamentary debates and legal cross-examinations). Monologues are divided into unscripted (e.g. spontaneous commentaries and speeches) and scripted (e.g. broadcast news and talks), which differ in the degree of planning involved. The main distinction within the 200 written texts is between non-printed and printed. The former are mainly intended for one single reader, while the latter are intended for a large, public audience. The printed writing embodies various functions. Some are chiefly informative (e.g. academic writing and press news reports), some persuasive (press editorials), and some recreational (novels and short stories).

For my analytical purpose I selected the British, American and Australian components of ICE (‘ICE-GB’, ‘ICE-US’ and ‘ICE-AUS’). Their precise word counts are presented in Table 1 in Appendix I. The three corpora were sampled for the same time period, the early 1990s. Unfortunately, the spoken section of the ICE-US is now incomplete, restricting the scope of comparison. To make up for this non-availability to some extent, selected texts from Parts 1 and 2 of the Santa Barbara Corpus of Spoken American English (‘SBC’) were used to represent AmE face-to-face conversation. SBC was designed with a view to being used as the main source of data for the actual spoken section of ICE-US. In its current form, it contains around 249,000 words of naturally occurring spoken interaction between Americans.

5.2 Frequency analysis

I will first consider the frequency of the present perfect in the three ICE corpora. The most reliable method to retrieve frequency information is of course to read carefully through the corpus texts and count and record each present perfect token manually. This method is nevertheless not feasible for examining the construction’s distribution in a database of considerable size – in this case, one million words for BrE and AusE respectively, and 400,000 words for AmE. It is therefore necessary to employ an automatic or semi-automatic procedure.
One important consideration in applying such a procedure is that the auxiliary *have* and the past participle are in some cases separated from each other by various types of linguistic items. In (1), the auxiliaries and the past participles have in between them constructions of different lengths:

(1) a. Have you heard **him** speak?

   [ICE-AUS S1A 001 037]

   b. I have **never ever** been shy about doing nothing or going nowhere

   [COCA Academic Style]

   c. The masses, too, have for many years been practically beyond the pale of the church.

   [COHA Magazine *Atlantic Monthly*]

Very occasionally, more than three words may be inserted in between *have* and the past participle, as shown in the following example reported by Schlüter (2006):

(2) He has, like so many other secular and religious culture symbols, gone over to the side of the ruling classes.

   (BROWN, Schlüter, 2006, p. 136)

The existence of the above tokens means that standard corpus linguistic software such as WordSmith Tools (which are designed for retrieving lexical items with specific forms) cannot be used to derive reliable frequencies of the present perfect.

In view of this difficulty, the corpus texts were first part-of-speech tagged by CLAWS4, a grammatical annotation program also employed for tagging the BNC (Garside & Smith, 1997). The C7 tagset was used. The program achieves a success rate of between 96% and 97% and is able to recognise both variants of *have* (tagged as VH*) and past participles (tagged as V*N) (see http://ucrel.lancs.ac.uk/claws7tags.html). The annotated texts were then processed using the PowerGREP program (http://www.powergrep.com), which allows for the use of regular expressions to search
through textual data. A search routine for the present perfect was developed, based on that in Hundt and Smith (2009), and is shown below:

(3) \(w^*(VH0|VHZ)( \ w^*(XX|R.*|MD))^{0,4}( \ w^*(AT.*|APPGE))^{0,2}( \ w^*(JJ.*)N.\})^{0,2}( \ w^*(PPH1|PP.*|PPY|NP.*|D.*|NN.\})^{0,2}( \ w^*(XX|MD|R.\})^{0,4} \ w^*_V.N.

The search routine takes into consideration various types of inserted elements, such as pronouns, adverbs and noun phrases. To illustrate briefly, \(w^*(VH0|VHZ)\) returns a word tagged as either the (finite) base form (VH0) or third person singular form (VHZ) of *have*. The numbers in braces refer to the number of times that the elements in the preceding round brackets can be iterated. For example, \((w^*(XX|R.*|MD))^{0,4}\) means that the auxiliary can be followed by from zero to four negators (XX), adverbs (R.*), or ordinal numbers (MD). Finally, two constructions had to be excluded from the search: *have got* and *have got to*, which are analysed respectively as expressing possession (as in *Have you got the answer?*) and modal meanings (as in *I have got to go*). Although present perfects of the type in (2) are still not captured, the above search routine yields fairly reliable results. A crosscheck with the manually derived frequency for the first 20 texts in ICE-GB S1A shows that both precision and recall rates are over 95%.

Figure 5.1 presents a general view of the frequencies of the present perfect in the three ICE corpora. The columns represent average figures for the spoken and written sections. All frequencies have been normalised to tokens per million words (‘pmw’). Spoken AmE is not represented in this figure due to stylistic incompatibility between SBC and the spoken ICE texts as a whole. It can be seen that, taken together, spoken texts have a slightly higher present perfect frequency than written ones. If the three varieties are compared with one another, BrE and AusE are similar in terms of the average frequency in writing. In AmE such frequency is considerably lower, confirming the British-American difference identified in previous research. As for the average frequency in the speech, BrE surpasses AusE by around 500 tokens pmw. Later in Section 5.3 it will be shown that dialectal variation is in fact more prominent in face-to-face conversations.
Figure 5.1  Frequencies of the present perfect in ICE (in pmw)
Figure 5.2  Frequencies of the present perfect in spoken texts in ICE (in pmw)
I now consider the frequencies of the present perfect in individual text categories, as shown in Figure 5.2. The spoken ICE section affords an opportunity to examine closely similarities and differences between BrE and AusE. I found a statistically significant correlation in the frequency ranks of the spoken categories (Kendall’s $\tau = 0.581$, $p < 0.01$), suggesting that the distributions of the present perfect in the two varieties are subject to register influences in a very similar way.\(^2\) However, in the context of this general picture, BrE has a comparatively stronger preference for the present perfect, as evidenced by the finding that in ten out of the fifteen spoken text categories, BrE displays a frequency higher than AusE.

Consider, next, register variation in the frequency of the present perfect. In order to tease apart quantitative differences reflecting regional and register variation, I calculated a mean rank score of present perfect frequency for each text category. This was done by applying the calculation method used in rank sum tests such as the Mann-Whitney U test and the Kruskal-Wallis analysis of variance; see Corder and Foreman (2009) for methodological explications. Specifically, frequencies from the fifteen categories were grouped together and were ranked from 1 to 30, regardless of variety membership. 1 was assigned to the smallest frequency, and 30 to the largest. Rank scores for the same text category were then averaged and are presented in Figure 5.3. It can be seen that the highest present perfect frequencies appear in broadcast news, parliamentary debates and broadcast discussions, with respective mean rank scores of 29.5, 25 and 25. These scores stand in contrast with the low scores of legal cross-examinations (6.5), demonstrations (6), face-to-face conversations (5.5) and class lessons (2.5). I will consider explanations for these findings in more detail.

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\(^2\) The Kendall’s $\tau$ test is a nonparametric test that evaluates the degree of similarity between two sets of ranks given to a same set of items. Values of $\tau$ range from $-1$ (100% negative association) to $+1$ (100% positive association). See Kendall (1955).
Figure 5.3 Mean rank scores for present perfect frequencies in spoken texts in ICE-GB and ICE-AUS
The remarkably high frequency of the present perfect in broadcast news is apparently related to the construction’s hot news function. However, other factors are also implicated. As shown by (4a) and (4b), the use of the present perfect is sometimes triggered by the need to express the persistence of a target-state result at present:

(4) a. Good evening. The scene is set tonight for what could be the tightest election result in a generation. Most of the polls have now closed with 11 million Australians casting their votes.
   [ICE-AUS S2B 007 2-4]
   b. Bombers have targeted thirty-one nuclear biological and chemical facilities. The military claim that all nuclear reactors have been destroyed and that fourteen chemical and biological factories and storage areas have been destroyed or heavily damaged.
   [ICE-GB S2B 001 79-80]

The events expressed by the present perfects in bold have the following target-state results: Most of the polls are closed and All nuclear reactors are destroyed. The resultative inference is derived from the event’s temporal recency and the audience’s assumption that there is no interference with the target-state results between the event’s occurrence and the present. The simple past does not fulfill this function; on the contrary, the implicit message conveyed by exchanging the present perfect with the simple past in the above examples is that the target-state results have terminated before the present. Quantitative findings about the perfect’s resultative interpretation in news will be further discussed in Section 5.3.2.

The finding that the present perfect also appears frequently in parliamentary debates can be explained by the nature of interaction featured in this register. Parliamentary debates are typically concerned with government policies, current issues, legislation and other matters of public concern; therefore the temporal focus is usually inseparable from the present. Moreover, on closely examining the corpus texts, I find that speakers often refer to arguments or commitments made previously by other speakers. The present perfect is used in these cases to mark the general relevance of the previous speech event to the current communicative setting. (5) provides an illustration of this use:
(5) Is it not in accordance with your ruling a few minutes ago and indeed with the conventions of the House generally that of course, a member who has to declare his interests should do it at the beginning of his speech so that members should be able to judge what he’s saying… So I do hope Mr Speaker you will urge the honourable member to make the declaration of interest which himself has said he was going to make but which so far he hasn’t done

[ICE-GB S1B 051 134-136]

It can be seen from the discourse that the present perfect invites a conversational implicature: the value of the present state can be described as an obligation for the honorable member to make the declaration which the current communicator is urging him to make.

Broadcast discussions share with parliamentary debates a strong present orientation. They are mainly face-to-face interactions between broadcast show hosts and celebrities, commentators or specialists. The topics of discussion are typically major news events in politics, economy or sports, which occurred in the recent past or are still ongoing. The present state is often conceived by communicators as connected somehow to a state of affairs in the past. For example, in (6), the situation described by the present perfect progressive spans a time interval beginning from an indefinite past time and ending up at the present moment. As the following discourse suggests, the present state is the continuative inference We are doing very well, which is the same as the extended-now situation.

(6) I take the position very firmly that the Government and I as the Arts Minister through the Arts Council because every penny we give to the visual arts and the performing arts it goes through the Arts Council. We have in fact been doing very well. Last year for the Arts Council twelve and a half per cent more than the year before. This year eleven per cent more than the year before. Way ahead of the rate of inflation.

[ICE-GB S1B 022 78-81]
Strong present orientation, however, does not entail the use of the present perfect. This point can be seen by examining demonstrations, face-to-face conversations and class lessons in ICE, text categories which show particularly low rank scores. All registers are temporally oriented to the present. In the case of the former, the communicator demonstrates to an audience certain qualities of an object or idea. The description is often made in the simple present tense without reference to the past. Similarly, face-to-face conversations make frequent use of the simple present because the interlocutors are primarily concerned with the immediate situational context, the ‘here’ and ‘now’. As for class lessons, their discourse topics are often not temporally confined, and thus the simple present is commonly used given its capacity to express ‘eternal truths’. These characterisations are reflected in the corpus findings: a frequency analysis of major verb forms in the ICE categories shows that, on average, the simple present is 20 to 33 times more frequent than the present perfect in demonstrations, face-to-face conversations and class lessons, but no more than 12 times more frequent in broadcast news, broadcast discussions and parliamentary debates (see raw figures in Table 2 in Appendix I).³

Like demonstrations and class lessons, the category of legal cross-examinations also has a relatively low mean rank score of present perfect frequency, which is nevertheless due to a different reason. In legal cross-examinations, past events are often referred to as if they are detached from the present: the communicator describes an event not for the sake of its repercussions on the present, but by virtue of its inherent properties, such as the time and place it occurred, the people involved in it, and so on. The general discourse topic is therefore oriented to the past, and verbs are often in the simple past form. Legal cross-examinations have the highest simple past to present tense verb ratio among the spoken categories (see raw figures in Table 2 of Appendix I).⁴ Example (7) illustrates the past time orientation of legal cross-examinations:

³ Frequencies of verbs in the simple present form are retrieved by first running on PowerGREP the search string \w*_\(V.0\|V.Z\|VBM\|VBR\), where V.0 and V.Z stand for the base and third person singular forms of a finite verb, and VBM and VBR stand for are and is. The derived figure for each text category is then converted into a pmw frequency, from which the pmw present perfect frequency for that text category is deducted. The deduction is necessary because in the C7 tagset the auxiliary have is also tagged as a present tense verb. The verb get is excluded from the frequency count.

⁴ Frequencies of verbs in the simple past form are calculated in a way similar to that described in Footnote 3. The search string \w*_\(V.D.\)? (excluding got) was first used, and for each text category the frequency of the past perfect (retrieved by exchanging the present tense forms of have in (3) with had and ‘d) is deducted from the resultant figure.
(7) A: When when was it that ah you made the decision that you yourself would go to to the Duseldorf conference in October?
B: About the end of September when Mr surnameM1 indicated that he was not available to go down to Spain.
[ICE-AUS S1B 061 2-6]

Using the present perfect would be inappropriate in the above context because the event of decision making is anchored to a specific past time and is perceived as disconnected from the present. Though the event may have current consequences, the communicator’s attention is restricted to the state of affairs in the past.

Let us now turn to the written ICE texts, which cover not only BrE and AusE but also AmE. As in the case of spoken texts, the overall picture presented by Figure 5.4 is one of remarkable similarity across varieties in terms of frequency ranks of the seventeen text categories. Using again Kendall’s τ correlation coefficient as a measure of such similarity, I find that the correlations between the frequency ranks of the three variety-pairs (BrE vs AmE, BrE vs AusE, and AusE vs AmE) are invariably significant at the 0.01 level. Moreover, BrE is better associated with AusE than with AmE, while AusE is equally similar to BrE and AmE (Kendall’s τ: BrE vs AusE = 0.568, BrE vs AmE = 0.515, AusE vs AmE = 0.568). If we consider regional differences, not surprisingly, in more than 50% of the text categories in Figure 5.4, AmE has the lowest present perfect frequency and BrE the highest among the three varieties. As for AusE, its frequencies can often be placed in between those of BrE and AmE (especially in the cases of W1B and W2D-F). Nevertheless, AusE also shows some interesting divergences from the two ‘supervarieties’. For example, its present perfect frequency for academic writing (W2A) is notably high. I will explore functional explanations for such divergence when we further examine the present perfect in academic English in Section 5.3.2.
Figure 5.4  Frequencies of the present perfect in written texts in ICE (in pmw)
Consider, finally, findings for register variation as shown in Figure 5.5. Mean rank scores for present perfect frequencies for the seventeen written categories were calculated using the same method as for spoken texts. Predictably, the Kruskal-Wallis analysis of variance reports a significance of 0.001 ($H = 38.63, df = 16$), suggesting that there is a significant difference in the frequency rank scores for the seventeen categories. The present perfect is most commonly used in press editorials, social and business letters (mean rank scores 46.7, 45.3 and 43.7), registers which can be seen as temporally focused on the present: in writing a letter, the author often presents to the reader an account of his or her current state, be it personal or professional, and press editorials share with broadcast discussions the concern with recent or ongoing news events. Fiction has the lowest mean rank score (3.7), a finding that is obviously due to the role of the simple past tense as the canonical verb form for narration. The sharp contrast between frequencies for letters and fiction is consistent with the finding of Elness (1997), that the present perfect vs simple past ratio for letters is more than twice as high as that for fiction (in BrE). Another text category in which the present perfect is fairly uncommon is skills/hobbies (mean rank score 6.3). On a closer examination, skills/hobbies has a remarkably high frequency of the simple present (see Table 2 in Appendix I), thereby restraining the occurrence of the present perfect. The reason is possibly that the discourse topics of skills/hobbies involve knowledge specific to a certain field, for example, golf or gardening, and are therefore not constrained to any particular time spheres.

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5 A nonparametric Levene’s test shows that the data satisfy homogeneity of variance ($F(16,34) = 1.840, p = 0.067$), which is assumed by the Kruskal-Wallis test. Apparently, the nonparametric Levene’s test could not have been performed on the spoken ICE data. The test statistic $W$ would have 0 as its denominator, because within a text category the absolute difference between the frequency rank score and its mean is the same for BrE and AusE. For this reason the Kruskal-Wallis test was not conducted on the spoken data.
Figure 5.5 Mean rank scores for present perfect frequencies in written texts in ICE-GB, ICE-US and ICE-AUS
5.3 Functional analysis

The above form-based frequency analysis is complemented by a more detailed investigation of the functions of the English present perfect across registers and dialects. My discussion will begin with a description of the data used for the functional analysis (Section 5.3.1). This is followed by an examination of the interpretation of the present perfect in context (Section 5.3.2), which also explains some of the frequency differences observed earlier. In Section 5.3.3 functional variation across registers and dialects is further explored by looking into the types of temporal specifiers that co-occur with the present perfect, an issue that has attracted considerable attention in previous research.

Section 5.3.4 examines certain ‘atypical’ uses of the present perfect in the corpus data. By atypical uses I refer to present perfects occurring in linguistic environments where most contemporary English grammars would suggest the other tense forms – uses that native speakers of English would generally avoid in formal written production. They represent interesting illustrations of departures of language use from language prescription.

The first atypical use to be investigated is co-occurrence with +THEN adverbials, which was already discussed at length in preceding chapters (Sections 2.1.2 and 3.3.2). The second is the so-called ‘vivid narrative’ use of the present perfect. It has recently been brought to scholarly attention by several sociolinguistic studies conducted by Engel and Ritz (Engel & Ritz, 2000; Ritz, 2009; Ritz & Engel, 2008). They found that in certain varieties of AusE, the present perfect is sometimes used in extended narratives where the simple past or the present tense would be the expected verb form, as shown in Examples (8a) and (8b):

(8) a. I just wanted to get out of the building as soon as possible. And then, about four of them have come up to me and one guy’s on crutches, and I’m thinking “well physical assault, hello. I’ve never been beaten up before but why not, it’ll be a great story.”

b. …he decided that he was going to install a sensor light for the garage… So he’s installed the sensor light…so he’s put it in and then he[?]’s spent the next three nights trying to beat his own sensor light, tiptoeing around…, he’s tiptoeing around, running one way…
What is noteworthy about these examples is the use of the present perfect to signal narrative progression. In (8a) the clause containing the present perfect is modified by the adverb *then*, which refers to a time completely independent from the present and implies that the two situations linked together are ordered chronologically. Engel and Ritz suggest that the present perfect in question functions in a similar way as the narrative present tense, rendering the description of past events more vivid. They also comment that the narrative present perfect is an idiosyncrasy of AusE, referring to it as the ‘Australian present perfect’. The narrative present perfect was found to be quite frequent (accounting for 22% of all tense forms) in Engel and Ritz’s collection of narratives told on Australian radio stations. However, its distribution across a range of varieties and registers remains to be examined empirically.

5.3.1 The data

A few words should be said about the data used for the functional analysis. Due to the considerable number of present perfect tokens in the ICE corpora, a decision was made to restrict the manual analysis to a subset of the data, specifically, to face-to-face conversations, press news reports and academic writing. The three registers were selected in view of the clear contrasts in their situational characteristics. Face-to-face conversations differ from news reports and academic writing in channel, degree of formality, purpose of communication and communicators’ relation to the external context. Conversations are spoken, informal, and primarily interactional; interlocutors share the same physical context and often a significant amount of background knowledge. By contrast, news reports and academic texts are written, formal, and primarily informative. The transmission of information is not dependent on shared time and space, and linguistic production is not subject to strict time constraints. There are also differences between the two written text categories. Unlike news reports, academic writing may serve a persuasive function, aiming at aligning the reader with the author’s point of view. More importantly, it targets a specialised audience as opposed to a general readership. Face-to-face conversations and academic writing have been
respectively considered as ‘typical speech’ and ‘typical writing’ because of their contrasting situational characteristics and linguistic features (Biber, 1988, pp. 36-37).

The composition of the database for the functional analysis is presented in Table 5.2. For face-to-face conversations, I selected the first 20 texts in the S1A sections of ICE-GB and ICE-AUS, totaling around 40,000 words per variety. In the absence of the spoken ICE-US, 20 dialogic texts were chosen from Parts 1 and 2 of SBC, namely, SBC001 to 019, and SBC022. Because the original SBC texts vary in length, ranging from 2,000 to 5,000 words, work had to be done to ensure that only around 2,000 words were selected from each text in order to match the length of the ICE texts. To represent press news reports and academic writing, I made use of all texts in the W2C and W2A sections of ICE, which amount to approximately 40,000 and 80,000 words per variety. In total the database for the functional analysis contains approximately 500,000 words.

Table 5.2  Contemporary English data for the functional analysis*

<table>
<thead>
<tr>
<th>Genre</th>
<th>Variety</th>
<th>Source</th>
<th>No. of texts</th>
<th>No. of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face conversations</td>
<td>BrE</td>
<td>ICE-GB S1A</td>
<td>20</td>
<td>41,270</td>
</tr>
<tr>
<td></td>
<td>AusE</td>
<td>ICE-AUS S1A</td>
<td>20</td>
<td>42,300</td>
</tr>
<tr>
<td></td>
<td>AmE</td>
<td>SBC</td>
<td>20</td>
<td>42,835</td>
</tr>
<tr>
<td>Press news reports</td>
<td>BrE</td>
<td>ICE-GB W2C</td>
<td>20</td>
<td>41,112</td>
</tr>
<tr>
<td></td>
<td>AusE</td>
<td>ICE-AUS W2C</td>
<td>20</td>
<td>41,422</td>
</tr>
<tr>
<td></td>
<td>AmE</td>
<td>ICE-US W2C</td>
<td>20</td>
<td>42,051</td>
</tr>
<tr>
<td>Academic writing</td>
<td>BrE</td>
<td>ICE-GB W2A</td>
<td>40</td>
<td>85,327</td>
</tr>
<tr>
<td></td>
<td>AusE</td>
<td>ICE-AUS W2A</td>
<td>40</td>
<td>85,867</td>
</tr>
<tr>
<td></td>
<td>AmE</td>
<td>ICE-US W2A</td>
<td>40</td>
<td>84,332</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>506,516</td>
</tr>
</tbody>
</table>

* In this and subsequent tables, word counts were derived from the ‘wordlist’ function of WordSmith Tools 4.0 (http://www.lexically.net/wordsmith/)

6 A small proportion of SBC texts do not represent face-to-face conversation, but tour guide spiels, sermons, town hall meetings, story-telling, etc. Texts SBC020 and SBC021 were excluded for this reason.
Unlike in the frequency analysis, all present perfect tokens in the functional analysis were identified and coded manually by searching for variants of the auxiliary *have* (*have*, *'ve*, *has*, *'s*) followed by the past participle (excluding *got*). Constructions that are ambiguous between the simple present tense and its perfect counterpart such as *He’s gone* were excluded. With coordinate verb phrases such as *He has come and left*, only the first present perfect was coded. Together the database yielded 1,955 present perfect tokens.

Figure 5.6 presents the pmw frequencies of the present perfect across three registers and three varieties. The construction is in general more frequent in news reports than in face-to-face conversations and academic writing. If we consider regional variation, we see that BrE shows the highest frequency for conversation and news. On the other hand, for academic writing, it is AusE that has the highest frequency, a pattern that has already been pointed out in our discussion of Figure 5.4. Between BrE and AmE the greatest frequency gap is in conversation, suggesting that the dispreference for the present perfect is more characteristic of spoken than written AmE, which can in turn be explained by the strong presence of the ‘colloquial preterite’ in spoken AmE. By contrast, between BrE and AusE the greatest frequency gap is in academic writing. This finding diverges from a common pattern identified in previous studies on grammatical differences across dialects, namely, a tendency for varieties to share more similarities in writing than in speech (Collins, 2009).
Figure 5.6  Frequencies of the present perfect in face-to-face conversations, press news reports and academic writing (in pmw)

5.3.2  Perfect interpretations

This section reports quantitative findings for the three perfect interpretations. The clause – as opposed to the sentence or utterance – was taken as the basic unit of coding. The analytical scheme follows the main distinction drawn in previous chapters, namely, between continuative, experiential and resultative perfects. Identification of the three interpretations is based on the following criterion: the continuative perfect lends itself to the inference that the situation described (or its habitual state) continues to the present. The resultative perfect expresses that the communicator’s focus is on the present persistence of an event’s target-state result or of its consequences. The experiential perfect also expresses a past event but does not allow the continuative or the resultative inference; the inference about the present state is typically a pragmatic implicature which stands in an optimally relevant relation to the discourse topic. The hot news interpretation was not coded as one functional type on a par with the continuative, resultative and experiential, given that whether a situation is interpreted as newsworthy or not could not be reliably operationalised.

As I have argued in Section 4.1.1, some present perfect clauses are ambiguous between two interpretations. This may be caused by various factors, including
difficulties in determining (a) whether the time of an atelic situation continues to the present, (b) whether a past event gives rise to a target-state result, and (c) whether the communicator chooses to foreground the inherent properties of the past event or its target-state result. The first type of difficulty leads to ambiguity between continuative and experiential interpretations; the second and third types lead to ambiguity between experiential and resultative interpretations. Ambiguous present perfect clauses were grouped into one separate category. Together they constitute around 6% (115 instances) of the total number of present perfect clauses analysed.

**Figure 5.7** Interpretations of the present perfect in face-to-face conversations, news reports and academic writing (ambiguous tokens excluded; raw frequencies indicated by column labels)

Figure 5.7 presents the relative distribution of the three types of unambiguously interpreted present perfects. It can be seen that, first, the most common interpretation across the three registers is the experiential (together 1,069 tokens, accounting for 58% of all unambiguous present perfects), followed by the resultative (499 tokens, or 27%), and then by the continuative (267 tokens, or 15%). The pattern is in line with the findings of van Rooy’s (2009) comparative study of present perfects in native and  

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7 Frequencies in round brackets are derived by adding together individual frequencies for the three varieties.
non-native Englishes, that the resultative interpretation is less prototypical than the experiential, and that the continuative interpretation is far outweighed by the non-continuative. Second, within each text category, the proportions of the three interpretation types are quite similar between the three varieties, suggestive of a common ‘core’ in the use of the present perfect. Nevertheless, minor differences can still be observed, in particular in face-to-face conversations. Compared with BrE and AusE, AmE has a slightly larger proportion of continuative perfects, and correspondingly, a smaller proportion of resultative perfects.

I will first consider in more detail the continuative interpretation. As has been suggested in Section 2.1.1.1, the continuative inference is only possible with atelic situations and is triggered by the presence of various linguistic elements, such as the progressive aspect, negation and temporal adverbials headed by *for* and *since*. In the present database, a total of 169 tokens, or 63% of all continuative perfects, are negative. They contain either verbal or nonverbal negators (e.g. *not, nothing, nobody, never, hardly, scarcely*), as exemplified by (9):

(9) a. A: So why do you want to go to the Black Stump?  
    B: Because we haven’t been there.
    [ICE-AUS S1A 005 16-17]

b. Never before has he had his head washed in omiero; never before has he been cleaned by the sweepings of birds’ wings; never before has he performed the moforibale.
    [ICE-US W2A 012 39]

As suggested previously, negative perfects are continuative by default: the negation of the situation is normally understood to continue to the present. Very occasionally can negative perfects be found with an experiential interpretation. The functional analysis yields only 15 instances of negative present perfects which are clearly experiential, and

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8 Van Rooy (2009) examined 600 instances of present perfects taken from spoken conversations and student writing in BrE, Hong Kong English and East African English. The percentages of experientials, resultatives and continuatives reported are 24%, 6% and 20%, respectively. The smaller percentages are a by-product of van Rooy’s more fine-grained coding scheme, which includes, apart from the three main interpretations, other functional categories such as ‘recent past’ and ‘terminative’.
interestingly, all appeared in BrE (7 instances) and AusE (8 instances), but not AmE. Examples (10a)-(10c) illustrate:

(10)a. A: You’ve only got a fright because you had a five course dinner anyway.
B: Yeah. Well no. I’ve just had a succession of them. I have eaten eaten eaten. I haven’t been able to stop. I have eaten my way round the Yorkshire Dales.
[ICE-GB S1A 011 193-199]

b. To begin with, although grammatology is not an intrinsically political practice – any more than the objects it works with – certain aspects of Australian culture and society have assumed a political importance they have not had before.
[ICE-AUS W2A 009 11]

c. We have not had a recession of this depth and hardship for many Australians since the war, and I think it is time to do things differently, he said.
[ICE-AUS W2C 003 191]

In the above examples, neither the situation itself nor its habitual state can be interpreted as still ongoing at present. Although the experiential interpretation is facilitated by linguistic cues (such as the adverb before in (10b) and the contrastive marker this in (10c)), these cues are not indispensable. Notably, in (10a), contextual knowledge alone (that the eating has already stopped by the time of utterance) is sufficient to invite an experiential interpretation.

The distribution of negative perfects serves as an explanation for why conversations contain a higher proportion of continuative perfects (25.4% of all unambiguous present perfects, or 107 out of 422 tokens) compared with news reports (14.8%, or 83 out of 560 tokens) and academic writing (9.0%, or 77 out of 853 tokens). Both differences are statistically significant on Pearson’s chi-square test (conversations vs news: $\chi^2 = 17.01, p < 0.001$; conversations vs academic writing: $\chi^2 = 60.96, p < 0.001$). Biber (1988, p. 102) observed that negation occurs more frequently in interactional, informal registers than in informative, formal ones. Accordingly, as Figure 5.8 indicates, negative perfects account for, on the whole, 18% of all perfects in the conversation data, whereas in news reports and academic writing their average percentages are only around 9% and 6%.
The different proportions of continuative perfects across registers can thus be traced in part to register variation in the distribution of negatives.

**Figure 5.8** Frequencies of the present perfect by negation in face-to-face conversations, news reports and academic writing (raw frequency indicated by column labels)

Temporal adverbials are the second most frequent linguistic element that triggers the continuative interpretation. 87 tokens, or 33%, of the continuative perfects in the current database are temporally specified. *Since-* and *for-*adverbials are most common (30 and 25 tokens, respectively), followed by *always* (10 tokens). Other adverbials which also invite the continuative inference include *all my life, long,* and *so far,* as shown in (11a)-(11c):

(11)a. All his life he’s been like that. It’s really horrible.
   [SBC 015]
   b. Penal reformers, now backed by the Labour party, *have* long *advocated* the creation of a sentencing council.
   [ICE-GB W2C 007 90]
c. Yorkshire Bank has managed its expansion satisfactorily so far, and there is no reason why we poor benighted southerners should not get the benefit of one of the most profitable banks in the Western world…

[ICE-GB W2C 005 19]

The issue of temporal specification for all present perfects in the database, continuative and non-continuative included, will be taken up in Section 5.3.3.

The strong correlation between since-adverbials and the continuative interpretation is evidenced by the finding that, when modified by since-adverbials, present perfects expressing atelic situations in the database are invariably continuative. With for-adverbials the correlation is weaker. Five present perfects modified by for-adverbials are found to be clearly experiential.9 With these instances, the time of the situation only leads up to the present moment without properly including it, yielding an up-to-now interpretation. That is to say, with none of the five instances can the time of the situation be interpreted as completely detached from the present and located in the indefinite past (as in Daniel has lived in Boston for four years (and in London for six years)) (see Section 3.3.1.1 for the up-to-now vs the indefinite-past distinction). (12) illustrates the up-to-now interpretation of present perfects with for-adverbials:

(12)a. She’s been suppressing that for years and years and years and this is what she um she has now come to accept.

[ICE-AUS S1A 010 113]

b. Part of that inquiry has been with the Fraud Squad for 18 months but this week police handed their findings to the Director of Public Prosecutions.

[ICE-AUS W2C 017 117]

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9 Another three present perfects with for-adverbials are ambiguous between continuative and experiential interpretations.
Always is similar to for-adverbials in its compatibility with both continuative and experiential interpretations. In my database, one instance modified by always is found to be clearly experiential.\(^{10}\)

(13) Lake Burley Griffin in Canberra is a good example of the sort of changes that can take place in aquatic ecosystems. The lake has always had reasonably high nutrient levels due to sewage effluent from the upstream town of Queanbeyan. Lake Burley Griffin was productive from when it first filled and rapidly supported extensive growths of water weeds. These dominated the lake for its first 18 years. They were a moderate nuisance and were controlled by using an aquatic weed cutter. In the late 70s and early 80s the lake changed. The water weeds died out and were replaced by blooms of algae. The algae that appeared were the toxic blue-green algae (cyanobacteria) which have been responsible for stock deaths in many parts of Australia.

[ICE-AUS W2A 024 39-46]

The time that the lake had reasonably high level of nutrient levels is obviously constrained to the past, given the changes that occurred in the late 70s and early 80s. The compatibility of the present perfect modified by always with non-continuative meaning is also reflected in the following example:

(14) Aboriginal Affairs have always been, and still remain, a white activity. This tradition has become a deeply ingrained cultural norm.

[ICE-AUS W2A 019 122]

Here the situation is construed by the author as continuing to the present, but it appears that the present perfect clause is insufficient to express the continuation, hence the use of the simple present in the following clause. Coordination with the simple present

\(^{10}\) Another two present perfects with always are ambiguous between continuative and experiential interpretations.
illustrates the ambiguity that might have been caused by the present perfect with *always*.

Finally, only 12 instances, or 4% of all unambiguous continuative perfects are in the progressive form. The clauses almost always contain duration adverbials, as shown in (15):

(15) A: Are you *are you* intending to get a licence, a driver’s licence?
   B: Yeah I’ve *been* intending for about eight years now.
   [ICE-AUS S1A 011 153-155]

More frequently the present perfect progressive is interpreted experientially. In my database there are altogether 54 present perfect progressives, the majority of which (37 tokens, or 69%) are of the type in (16), with the interpretation being that the past situation has terminated before the present:

(16) The organization also is lobbying the state Legislature to pass a bill that would lower the legal blood alcohol level for a driver who *has been drinking*.
    [ICE-USA W2C 004 8]

In sum, Examples (12)-(16) provide further support for a discourse-pragmatic account for the continuative vs non-continuative distinction: the continuative interpretation cannot be fully predicted by any linguistic element alone, be it negation, temporal adverbials, or the progressive.

I now consider the distribution of resultative perfects. As can be seen from Figure 5.7 above, the news report register has a significantly higher proportion of resultative perfects than academic writing and conversations, regardless of regional variation. In total, resultative perfects constitute 36.6% of unambiguous present perfects in news reports (205 out of 560 tokens), but only 22.0% in conversations (93 out of 422 tokens), and only 23.5% in academic writing (201 out of 853 tokens). The percentage differences are significant on the chi-square test (news reports vs conversations: $\chi^2 = 24.17, p < 0.001$; news reports vs academic writing: $\chi^2 = 28.09, p < 0.001$).
On a closer examination, such register variation is largely determined by 
distributional differences in situation type across registers: news reports tend to make 
more reference to events with target-state results, compared with the other text 
categories. In the present study, situation type was coded based on the following 
principles. A primary distinction was made between telic and atelic situations, by 
applying linguistic tests for telicity discussed in previous works, such as whether the 
situation can occur as the complement of finish, whether it can by modified by in- or 
for-adverbials, and so on (see Binnick, 1991; Vendler, 1967, and discussion on telicity 
in Section 1.5.4). To tease apart the role of situation type from that of other linguistic 
elements, consideration was only given to the lexical (but not grammatical) contents of 
the ‘central elements of the clause’ (Quirk et al., 1985, p. 45): the subject, verb, object 
and complements, excluding ‘peripheral elements’ such as adverbials. To illustrate, the 
situation expressed by I have written this letter was coded as telic, irrespective of 
whether it occurred in a sentence such as I have written this letter for two hours. 
Similarly, clauses in the progressive aspect such as He was running to school were 
coded consistently as expressing telic situations regardless of the atelicising function of 
-ing.  

Since the resultative interpretation is only possible when the event has a target-state 
result, a further distinction was made within the category of telic situations between 
those with and without target-state results. Coding was based on the taxonomy 
presented earlier in Sections 4.1.1.2 and 4.1.1.3. To reiterate, situations coded as events 
with target-state results either belong to (i)-(vi), or are expressed by the lexical or 
syntactic patterns in (vii)-(ix):

(i) Directed motion resulting in change of location (e.g. arrive, come, enter, fall, go, 
leave, move, pass, rise)

(ii) Creation and destruction (e.g. build (a house), break, create, destroy, explode, 
invent, kill, paint (a picture), write (a novel))

(iii) Change in internal property (e.g., decline, decrease, dry, expand, grow, improve, 
increase, shorten, shrink, tumble, wither)

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11 A similar coding scheme was used by Davydova (2011, pp. 131-137).
(iv) Initiation/appearance and completion/disappearance (e.g. appear, begin, commence, end, finish, stop, surface, vanish)

(v) Carrying and transfer of possession (e.g. accept, buy, donate, give, lose, obtain, pay, receive, sell)

(vi) Transition between two clearly distinct mental states (e.g. accept, discover, forget, learn, realise, remember, understand)

(vii) Verbs formed out of an adjectival base and the suffix -en (e.g., deepen, lengthen, lessen, redden, ripen, strengthen, weaken)

(viii) Complex monotransitive clauses (e.g., drive someone mad, laugh oneself silly, make someone happy, paint the wall red, push the door open)

(ix) Complex transitive verbs, where the two objects describe the same entity (e.g., appoint, elect, make (someone a hero), name, take (someone hostage), turn into)

On the other hand, events of the following types were coded as incompatible with target-state results:

(xi) Cognitive processes (e.g. dream of, feel, hear, notice, observe, perceive, see, think of)

(xii) Speech acts (e.g. argue, ask, comment, declare, mention, say, suggest, tell)

(xiii) Punctual, momentary events (e.g. blink, fire (a gun), hit, kick, kiss, nod (one’s head), sneeze, touch)

In addition, there are present perfect clauses for which a decision could not be made. These include instances of the type in (17):

(17)a. Thank you for your, you know, what you’ve done for the board and so forth.

[SBC 010]
b. Some semiotic approaches, notably that of Greimas place considerable importance upon narrative in the deep structure of signification of any form of discourse; this approach, too, has been applied to legal discourse.

[ICE-GB W2A 007 9-10]

In (17a), ambiguity arises from a lack of information about the precise nature of the situation. In (17b), the situation the approach being applied to legal discourse can be taken to have either a telic or an atelic reading. Coding for situation type results in a total of 55 ambiguous tokens, which amount to approximately 2.8% of all present perfect clauses. The raw figures for each variety/register are shown in Table 3 in Appendix I.

Figure 5.9 presents the present perfect’s distribution in the database according to situation type. There is a consistent tendency across varieties for news reports to have the highest proportion of events with target-state results (a total of 275 out of 586 unambiguous tokens, or 46.9%), in comparison with conversations (143 out of 431, or 33.2%) and academic writing (266 out of 898, or 29.6%). It is not surprising that verbs describing transition between an event and its target state occur more often in news reports, a register that is mainly concerned with recent newsworthy events. Common topics in news include changes in demographic, economic and social data (as expressed by verbs listed in category (iii)), military actions (which often involve death and destruction), and government actions with various types of concrete impacts. Three examples follow:

(18)a. Investors are getting increasingly nervous about Murdoch, and News shares have tumbled to their lowest for six years.

[ICE-GB W2C 013 39]
Figure 5.9  Frequencies of the present perfect by situation type in face-to-face conversations, news reports and academic writing (ambiguous tokens excluded; raw frequencies indicated by column labels)

b. Both the rebels and government forces have destroyed villages, commandeering what food they can find, and both sides have a history of press-ganging recruits, snatching men and younger women.
[ID-GB W2C 002 75]

c. Sydney police have launched an investigation into yet another bungled police raid after two Sydney businessmen were hauled out of a campervan at gunpoint yesterday in a lunchtime police ambush at Surry Hills.
[ID-AUS W2C 001 169]

The target state in (18a) is the state News shares are at their lowest for six years; in (18b) and (18c) it is the current existence of destroyed villages and ongoing investigations. The recency of the events consolidates the resultative interpretation.

In comparison with news reports, academic writing has a tendency to make more reference to events without target-state results and to atelic situations. Figure 5.9 shows that in academic writing, present perfects describing events without target-state results
account for 32.7% of the unambiguous clauses analysed (294 out of 898), while in news reports it accounts for 24.6% (144 out of 586). This difference can be traced in part to the frequent occurrence of speech act verbs in academic texts, among which two major types can be further identified. First, there are verbs which Traugott (1987, p. 32) refers to as ‘assertive speech act verbs’ (e.g. suggest, argue, point out, comment, propose), which express one’s opinion towards a potentially contentious issue. The second type serves to explain or summarise the essential qualities of a phenomenon in a somewhat objective fashion (e.g., define, term, characterise, describe). In academic writing the two types of speech act verbs total 54 and 39 tokens respectively. They are exemplified by (19a) and (19b):

(19)a. Characters such as germ spore number or morphology might be assumed to be stable, and therefore “good” taxonomic characters (Wilson et al., 1966; Cummins & Hiratsuka, 1983), but many authors have commented that the germ spores of the Allium rusts are indistinct (Gumann, 1959; Wilson et al., 1966).

[ICE-GB W2A 028 32]

b. The Holocene Queensland Shelf has been termed an incipiently-drowned rimmed shelf, where the shelf-edge reefs were able to keep growing and so form the Great Barrier Reef, with a deep and broad lagoon behind.

[ICE-GB W2A 023 60]

Both examples are interpreted experientially: the speech acts do not lead to any concrete, tangible target state persisting at present. The present state inference in these cases is the implicit pertinence and validity of the previous studies in the broad current research context. The present perfect highlights the up-to-dateness of the studies mentioned, even though the time of their occurrence may be located in a somewhat distant past. For example, in (19a), the comments were actually made several decades prior to the author’s ‘present’. It is perhaps for this reason that the use of the present perfect is often recommended by academic style guides for reporting previous research (e.g., Bailey, 2011; Swales & Feak, 2004). Current relevance in this case is a pragmatic implicature which is not only general and abstract, but also highly register-specific.
Academic writing also exhibits a higher percentage of atelic situations (together 36.0%, or 323 out of 898 unambiguous tokens) than news reports (together 28.5%, or 167 out of 586). This tendency is particularly evident in AusE, where present perfects expressing atelic situations account for 44.0% of all unambiguous tokens in academic writing, almost twice the percentage in news reports (25.4%). Upon closer inspection, the preference for atelic situations by AusE academic writing is partly due to a frequent use of the present perfect with the copular verb be. I found 65 instances of have/has been in academic writing in AusE, which is more than twice the frequency in BrE (26 tokens) and AmE (22 tokens). The following examples from AusE illustrate:

(20a). But then does this lack of explicitness necessarily mean there has been an “absence of the ethical”, or at least a significant turn away from it, in Anglo-American literary theory and criticism in the ’70s and ’80s? [ICE-AUS W2A 002 14]

b. The traditional method of coal removal has been by the bord and pillar system, where initially only 30%-40% of coal is mined with substantial pillars of coal left to support the strata above. [ICE-AUS W2A 034 83]

It is noteworthy that the literary and technological practices referred to by two examples are predicated of certain past times standing in contrast with the present, as indicated by the expressions in the ’70s and ’80s and traditional. Given these temporal constraints, it can be suggested that the simple past would be more semantically congruent with the situations described in the above discourse. Nevertheless, the authors chose to use the present perfect to create a pragmatic implicature of the same kind as that in example (19a) and (19b), namely, that the previous practices are relevant to, or worthy of consideration in the current research context.

Remarkably, the finding that AusE academic writing often makes use of the present perfect to describe atelic situations provides a functional explanation for our frequency findings. We have seen in preceding sections a considerably higher overall frequency of the present perfect in academic writing in AusE than in BrE and AmE, a pattern which diverges from those for other registers. Correspondingly, Figure 5.9 reveals that the
percentages of atelic situations for the three varieties are 44.0% (AusE), 31.4% (BrE) and 30.4% (AmE). It is therefore reasonable to argue that the high frequency of the present perfect in AusE academic writing has to do with its functional extension to more atelic situations (in particular to states described by be). This extension, as illustrated by examples (20a) and (20b), is motivated by the expression of an abstract present state in which previous research, actions and practices have the widest possible range of relevance to the author’s present argument.

Having discussed situation types in academic writing, a few remarks should be made about face-to-face conversations. We have noted that, similar to academic writing, conversations contain significantly fewer resultative perfects compared with news reports, which again reflects the distribution of situation types in the database. Figure 5.9 shows that the overall proportion of atelic situations together with events without target-state results in conversations (66.8%, or 288 out of 431 unambiguous tokens) is much higher than that in news reports (53.1%, or 311 out of 586). A closer examination of atelic situations in conversations reveals that nearly half of them (70 out of 150 tokens) are expressed again by the copular verb be. Furthermore, while academic writing contains many instances of speech act verbs, conversations tend to express more cognitive processes using such verbs as see and hear, given that participants of conversations often relate to their own private experience. Thus I found a total of 55 present perfects referring to cognitive process in conversations, but merely 19 in academic writing. This finding is consistent with the results of Biber (1988), that informative, interactional texts can be distinguished by their frequent use of private verbs and be as the main verb.\footnote{Biber’s distinction between private and public verbs, which is based on Quirk et al. (1985), corresponds to a great extent to our distinction between verbs expressing speech acts and cognitive processes. Public verbs involve actions that can be observed publicly (e.g., claim, explain, say, suggest); private verbs express intellectual states (e.g., believe) or non-observable intellectual acts (e.g., feel, hear, imagine, see) (Biber, 1988, p. 242).}

Finally, another factor contributing to the relatively small proportion of resultative perfects in conversations is its more frequent use of interrogatives, which is in turn due to the dialogic nature of the communication. 36 tokens of present perfects in conversations, but only 3 in news reports and 4 in academic writing, were found to be in the interrogative form. As suggested in Section 4.1.1.3, the focus of interrogative present
perfects is typically on the occurrence or non-occurrence of the situation in the up-to-now time span, thereby triggering an experiential, non-resultative interpretation.

5.3.3 Co-occurrence with temporal specifiers

In this section I examine in more detail the present perfect’s co-occurrence with temporal specifiers. The analysis complements previous research on this topic such as Elsness (1997) and Schlüter (2002, 2006) in that it takes into account regional and register variation at the same time.

My analytical scheme for temporal specification follows the classification developed in Section 4.1.2. I first distinguish between temporally specified and unspecified clauses, the difference being that the former, but not the latter, is modified by one or more adverbials expressing temporal meanings. Within temporal adverbials, two major semantic categories are identified: anchored and unanchored. An anchored adverbial makes reference to a temporal anchor, a time unit (a time point or interval) whose location on the temporal axis is recoverable for discourse participants. As such, an anchored adverbial can be precisely or vaguely anchored, depending on whether its referent is distinct or clearly separable from other time units on the temporal axis. Anchored adverbials fall into the following semantic categories:

(I) Precisely anchored: expresses a time point or interval whose precise location on the temporal axis is recoverable

   (i) +THEN: expresses a past time disconnected from the present (e.g., yesterday, last night, in 1900, three days ago, five years ago)

   (ii) ±THEN: expresses a time either beginning from the past and connected to the present, or as disconnected from the present (e.g. today, this morning, this month, in the past three weeks)\(^\text{13}\)

   (iii) –THEN: expresses either a time overlapping with the present (e.g. now, at present, currently), or a time beginning from a distinct point in past and connected to the present (e.g., since 1999)

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\(^{13}\) To illustrate, today can be taken to refer to the time including the present (as in I haven’t seen him today) or excluding the present (as in I saw him (earlier) today).
(II) Vaguely anchored: expresses a time point or interval whose precise location on the temporal axis is not recoverable

   (i) +THEN: expresses a past time disconnected from the present (e.g., long ago, some years ago, the other day)

   (ii) ±THEN: expresses a time either beginning from the past and connected to the present, or as a past time disconnected from the present (e.g. recently, just now, already, in the past, before, over the past few years)

   (iii) –THEN: expresses a time beginning from the past and connected to the present (e.g., up until now, so far, as yet, before now)

In contrast, unanchored adverbials do not specify any temporal anchors. As a result, they do not express the location of a time point or interval on the temporal axis. There are three main subcategories:

(III) Unanchored adverbials

   (i) Temporal quantifiers (always, never, ever)

   (ii) Frequency adverbials (e.g., sometimes, twice, occasionally)

   (iii) Duration adverbials (e.g., for three months, in ten days, within a year, over time)

This classification still leaves us with adverbial clauses headed by conjunctions such as when, after, before and until. In this study they are grouped together into a separate category because their complex temporal references makes it difficult to fit them neatly into the semantic types discussed above.
I first examine the percentages of temporally specified present perfects in the Contemporary English database, shown in Figure 5.10. Consistent with the results of previous research (e.g., Schlüter 2006 and studies cited therein; Werner, 2013), temporally specified present perfects are outnumbered by unspecified ones. The varieties are very similar to one another, although AusE shows a slightly lower percentage of temporally specified present perfects in news reports (AusE 19.1%, BrE 28.6%, AmE 25.4%). Comparing the three registers we find that temporally specified present perfects are most common in conversations (29.8%, or 134 out of 449 tokens), followed by news reports (24.7%, or 149 out of 604 tokens), and finally by academic writing (21.5%, or 194 out of 902 tokens). Such register variation can be explained by a general tendency identified by Biber (1988) for interactive registers, in comparison with less interactive and more informative ones, to make more context-dependent references using linguistic features including temporal expressions, whose interpretations often

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14 Some present perfects co-occur with more than one temporal specifier (e.g. *He has been sitting there for an hour now*). In these cases, both specifiers were counted. This explains why the total numbers of temporal specifiers in Figure 5.11 are sometimes larger than the numbers of temporally specified present perfects shown in Figure 5.10.
rely on the deictic centre. As Biber’s 1988 study indicates, academic prose, news reports and face-to-face conversations form a descending order in the number of context-dependent references they make.15

Let us now turn to the use of specific types of temporal specifiers across registers and varieties. Since our fine-grained classification of temporal specifiers may result in as many as 10 categories in the actual coding process, a ‘code fine, merge later’ strategy (Van Herk, 2010) had to be adopted. Initially individual codes were created for all categories. Cross-tabulation then showed that only three categories – temporal quantifiers, precisely anchored –THEN adverbials and vaguely anchored ±THEN adverbials – have sufficient numbers of tokens that lend themselves to representation in the form of Figure 5.11. The rest of the categories, many of which contain less than 5 tokens per variety/register, are merged into one single category labeled as ‘other specifiers’. The frequency breakdown of temporal specifiers can be seen in Table 4 in Appendix I.

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15 Biber (1988) used a factorial model to make generalisations concerning linguistic similarities and differences across 23 spoken and written registers. The model resulted in five main factors (what Biber refers to as ‘dimensions’), each representing distinct groupings of linguistic features that have been empirically determined to co-occur with significant frequencies in texts. Factor 3 is called ‘explicit vs situation-dependent reference’. Linguistic features with positive values on this factor – those associated with explicit, situation-independent reference – are wh-relative clauses on subject and object positions, pied piping constructions, phrasal coordination and nominalisations. Linguistic features with negative values – those associated with situation-dependent reference – on this factor are temporal adverbials, place adverbials and other adverbs.
**Figure 5.11** Types of temporal specifiers in face-to-face conversations, news reports and academic writing (raw frequencies indicated by column labels)

Figure 5.11 shows that the three temporal quantifiers *always*, *never* and *ever* account for a much higher proportion of the total number of temporal specifiers in conversations than in the other two registers. These adverbs serve to facilitate a continuative interpretation (in the cases of *always* and *never*) or an experiential interpretation (in the case of *ever*). They have in common that their basic senses quantify over a time span extending from the past to the present: the up-to-now time span. With *always* the situation holds for all subintervals of this time span; with *never* there is no subinterval for which the situation is true; with *ever* the situation holds for at least one subinterval. When the adverbs are used to modify the present perfect, contextual information determines whether the right boundary of this time span abuts or coincides with the present. Consider Examples (21a)-(21c):

(21)a. You know I I think you still need to go back uhm, maybe do something at least once a week, but that’s not always available, because there’re so many people who need phi - physiotherapy. Uhm so what I’ve always tended to do is to do my own stretches at home.

[ICE-GB S1A 003 28]
b. A: Is ‘remanar’ a verb, or did I just imagine it? I just assumed that -
B: In your dreams.
C: You made it up from a noun?
A: No, to remain. A verb, to remain.
C: Unhunh. I’ve never heard it, no.
A: No wonder the kids always giggle when I say that word.

[SBC 004]

c. Have you guys ever imagined yourself dead, just to see what people would think about you?

[SBC 019]

(21a) invites a continuative interpretation, with the right boundary of the up-to-now span overlapping with the present. The present state is interpreted as the continued habitual state I tend to do my stretches at home. By contrast, (21b) is experiential, with never quantifying over the up-to-now span, whose right boundary is close to the present. In (21b) the present state is the intended implicature ‘Remanar’ is not a verb, while in (21c) it is a more abstract experiential state. Given that in face-to-face conversations communicators often describe their own experiences and link them to the present, it is not surprising that always, never and ever co-occur more frequently with the present perfect in this register. Another point to note regarding always, never and ever in Figure 5.11 is that they are more common in AmE than in BrE or AusE, providing some hint for an underlying regional divergence. Specifically, in AmE conversations they make up 48.6% of all temporal specifiers, a figure higher than those for BrE and AusE (27.1% and 30.8%). This finding is somewhat unexpected: Elsness (1997, p. 354) actually found a stronger preference for the simple past in AmE than BrE with always, never and ever. I will discuss this regional divergence in more detail and within a historical context in Section 6.4.2.

Figure 5.11 also reveals a tendency for precisely anchored –THEN adverbials to be more popular in news reports (together 42 out of a total of 146 temporal specifiers, or 28.8%) than in conversations (15 out of 137, or 10.9%) or academic writing (32 out of 196, or 16.3%). Apparently this tendency can be traced to the use of now for
highlighting the up-to-dateness of the news events reported, as illustrated by Example (22):

(22) Three-month public consultation periods have now all but ended.

[ICE-GB W2C 006 55]

In news reports I found 12 instances of now, but only 2 in each of the other two registers. On the other hand, vaguely anchored ±THEN adverbials are more likely to be found in academic writing (together 81 out of a total of 196 temporal specifiers, or 41.3%) than in conversations (25 out of 137, or 18.2%) and news reports (47 out of 146, or 32.2%), due largely to its frequent reference to recent research trends using vaguely anchored ±THEN adverbials such as recently, in recent years, and lately. Example (23) illustrates this register-specific co-occurrence pattern:

(23) Quantitatively, tax expenditures on health care have represented only a tiny fraction of total health expenditure in recent times.

[ICE-AUS W2A 005 32]

In my data, the frequencies of recent past adverbials in the three registers are drastically different: 34 in academic writing, but merely 4 in news reports and 3 in conversations. It can thus be suggested that the capacity of the present perfect to express recent past time is enforced by register-specific conventions.

Finally, regarding regional variation, Figure 5.11 also provides some support for AmE’s divergence from the other two varieties. Together AmE conversations contain a significantly smaller number of precisely anchored –THEN and vaguely anchored ±THEN adverbials in comparison with their British and Australian counterparts (AmE vs BrE $\chi^2 = 8.39, p < 0.01$; AmE vs AusE $\chi^2 = 5.45, p < 0.05$). The finding that the three varieties share more similarities in adverbial composition in the two written genres is likely due to a tendency for language users, in particular AmE speakers, to drift

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16 The chi-square test was conducted based on total frequencies of the two types of adverbials in the conversation data.
towards a more ‘established’, British-like use in written genres that target a wide readership.

5.3.4 Atypical uses

In this section I focus on two atypical uses in the data, namely, present perfects which co-occur with +THEN adverbials and which embody the ‘vivid narrative’ function identified by Engel and Ritz in spoken AusE. As expected, the two uses are highly infrequent in my data. Only three instances were found to be modified by +THEN adverbials, shown below:

(24a) A: Can I grow some basil? From seed?
    B: I don’t have any this year, but I’ve grown it other years.
    [SBC 011]

b. Black’s practice is currently based in Perth, and his studies in Germany bring to Australia the issues of complex urban centres. At the same time, his projects have a clarity of vision that surely must interest Europeans. His work has been exhibited overseas in the UK, Europe and Japan, and locally in January 1990 at the Perth Institute of Contemporary Arts (reviewed by Duncan Richards in The Architect Autumn 1990).
    [ICE-AUS W2A 035 142-144]

c. However, lawyers for the Murray Islanders pointed out that in 1985 the Queensland government has passed legislation expressly extinguishing all native rights to the Torres Strait islands, retrospectively to 1879. This had been ruled invalid in a majority full High Court decision on the ground that it was inconsistent with federal racial-discrimination legislation.
    [ICE-AUS W2C 005 121-123]

Examples (24a) and (24b) are similar in that the +THEN adverbials are triggered by local cues in the immediate linguistic context. In (24a), other years contrasts with this year in the previous clause. The general collocation principle of temporal expressions is overridden by the communicator’s intention to assert the experiential state of having
grown basil from seed before and the resulting implicature *You can grow* (or *It is possible to grow*) basil from seed, which follows from the principle of relevance. In (24b), the use of *in January 1990* in the present perfect clause is likely to have been triggered by the preceding locative adverbial *in the UK, Europe and Japan*. The atypical co-occurrence pattern is explained by economy considerations operating in tandem with the need to maintain a single reference time (the present) in the extended discourse. (24c) is another illustration of how focus on current relevance overrides the general collocation principle of temporal expressions. The present perfect functions to highlight the present repercussions of the passing of the 1985 legislation in the context of an ongoing anti-discrimination campaign, even though the legislation has already been ruled invalid.

The small size of my database makes it impossible to derive any generalisations about the distribution of present perfects with +THEN adverbials. Moreover, the database did not yield any clear-cut instances of the type of narrative present perfect found by Engel and Ritz. This prompted me to examine present perfects in the entire range of spoken dialogues in ICE-GB, ICE-AUS and SBC, where narrative present perfects are most likely to occur. The investigation revealed two instances which border on the narrative use. Consider, first, Example (25) from BrE:

(25) A: Cos I remember I went into Eden whatever it’s called, and they said no -  
    B: No. Leave now.  
    C: You ought to hear what they shouted to me. No.  
    A: No. No. Unclean. That’s what everyone’s been saying when I go into the kitchen cos I’ve had this awful virus. I’ve great black rings and I’ve been coming down.  

[ICE-GB S1A 040 290-302]

In (25), Speaker A’s narration begins with the simple past form (*went* and *said*) and then switches to the present perfect *’s been saying*, which is modified by an adverbial clause in the historical present *when I go into the kitchen*. This is followed by tense shifts between the present perfect and the historical present. If we focus on the bolded present perfects, we see that like the historical present, they locate the time of the
situation to a metaphorical ‘now’ and signal that the past is talked about in a vivid, spontaneous way. The similarity between the functions of the two tenses can be seen by comparing (25) with the recast in (26):

(26) That’s what everyone’s saying when I go into the kitchen cos I’ve this awful virus. I’ve great black rings and I’m coming down.

Notably, in this particular example, the meaning of temporal anteriority (or $e < r$ in Reichenbachian terms) coexists with that of simultaneity between two situations. As the discourse context in (25) indicates, the situations described by the present perfect do not temporally precede, but rather coincide with those described by the historical present. This is because the reference time of the present perfect is still the communicator’s real ‘now’, whereas the references time of the historical present is the metaphorical ‘now’. Shifting between the two different reference times allows the expression of both temporal anteriority and simultaneity in the discourse.

I also found one example from AusE where the present perfect expresses temporal progression and is modified by clause-initial then:

(27) A: I mean normally they play the full game and have innings off. But a couple of times when someone’s had to leave early they’ve had the first half and then gone on
B: Um yeah and then someone’s come on

[ICE-AUS S1A 016 134-137]

Like those in (25), the present perfects in (27) are interchangeable with the historical present. However, the sequence of events depicted here is not anchored to a particular past time as in those discussed by Engel and Ritz (note the unanchored frequency adverbial a couple of times). Instead, (27) should be analysed as what Visser (1973, p. 2198) calls a ‘stylistic peculiarity’, where the present perfect is used in recounting recurrent past events to ‘express the present vivid remembrance of the emotion experienced by the speaker’, with when in the preceding clause having the sense of
whenever. Visser comments that the use has been subject to prescriptive stricture in the history of English; nevertheless he finds occasional instances throughout the Middle and Modern English periods:

(28)a. Did this in Caesar seeme ambitious? When that the poore haue cryde, Caesar hath wept.
[1601, Shakespeare, Julius Caesar]

b. When I have been at church, where I first saw you – I’ve been the gay giddy thing in a gallery watching eyes to make curt’sies.
[1703, Steele, Lying Lover]

c. If Philip has met an organ girl with pretty eyes and a monkey in the street, he has grinned and wondered over the monkey; he has wagged his head, and sung all the organ’s tunes; he has discovered that the little girl is the most ravishing beauty eyes ever looked on.
[1862, Thackeray, Adventures of Philip]

If we consider examples (25), (27) and (28) alongside Engel and Ritz’s narrative perfects, it appears that there is a cline of markedness in the present perfect’s function in narratives, the more marked type being those expressing a sequence of anchored past events, and the less marked being those expressing unanchored, recurrent events. Nevertheless, in all these cases, the function of the present perfect blends in with that of the historical present. Current relevance is interpreted as the dramatic immediacy and intensity of the narrative account, not as any explicatures or implicatures whose contents are dependent on context-specific information.

5.4 Summary

I am now in a position to summarise the sundry findings of the extensive analysis of the present perfect in Contemporary English corpora. The analysis has consisted of two parts. Firstly, I examined the construction’s frequency in three parallel corpora, the British, Australian and American components of the International Corpus of English, as well as a subset of dialogic texts in the Santa Barbara Corpus. Secondly, I conducted a
functional analysis of the present perfect in a selection of texts from these aforementioned corpora, focusing on the construction’s interpretation and co-occurrence patterns with various linguistic elements. The database for the functional analysis represents three registers, one spoken (face-to-face conversations) and two written (press news reports and academic writing).

Using automatic retrieval methods, I have found that the present perfect is in general most common in contemporary BrE, followed by AusE, and then by AmE. The same BrE > AusE > AmE hierarchy has been identified on several measures – in the averaged frequencies for the complete spoken and written sections of ICE (Figure 5.1), in the frequencies for the majority of the 32 ICE categories (Figures 5.2 and 5.4), and in the ways in which varieties are sensitive to register variation, as reflected by the three varieties’ correlation coefficients for the frequency ranks of the ICE categories.

Regional variation in the distribution of the present perfect is complicated by register variation. By comparing and contrasting the 32 ICE categories, I have found that the construction is more popular in the language of the mass media, letters and parliamentary debates, than in fictional writing, face-to-face conversations and informative registers such as demonstrations, class lessons and administrative writing. Each of these registers is defined by distinctive discourse topics which are associated with particular social meanings expressed in particular social settings. Within each register, discourse topics predict not only the nature of the situations described but also their temporal properties, or more precisely, how communicators choose to portray their temporal properties in relation to the speech event itself or other situations mentioned in the discourse. The use of the present perfect follows from communicators’ expression of a past situation and an inferentially linked present state which is at the same time relevant to a present-oriented discourse topic. As the frequency findings indicate, neither past situations nor present-oriented discourse topics alone are sufficient to predict the use of the present perfect.

The functional analysis reveals considerable variation in the present perfect’s interpretation across face-to-face conversations, news reports and academic writing. Such variation is in turn associated with register differences in the type of linguistic elements that co-occur with the construction. The finding that the continuative interpretation is most common in conversations can be explained by a higher proportion of negators in this register. The robustness of the resultative interpretation in news
reports is attributable to frequent reference to events with target-state results, as is predictable from the focus of news discourse on events of concrete impacts. Experiential perfects are more frequent in both conversations and academic writing than in news reports, but for somewhat different reasons. First, conversations, but not academic writing, contain more interrogatives, which highlight the experiential interpretation. Second, while conversations typically contain the copular verb be and verbs expressing cognitive processes such as see and hear, academic writing often makes use of speech act verbs such as argue, comment, describe and suggest, to report findings or arguments of previous research. Since none of these three verb types has target-state results, they are incompatible with the resultative interpretation.

Register difference has also been found in the present perfect’s co-occurrence pattern with temporal specifiers. I have shown that the quantifiers always, never and ever are far more common in conversations, leading to a higher proportion of non-resultative interpretations in this register. On the other hand, precisely anchored –THEN adverbials (e.g., now, at present, currently) are more popular in news reports than in the other two registers, due to their capacity to highlight the up-to-dateness of news events. Finally, academic writing has the highest proportion of vaguely anchored ±THEN adverbials (e.g., recently, just now, already, before), a pattern explained by their role of reporting recent research trends. Taken together, the findings for temporal specification point to a register basis for the present perfect’s functional variation.

If we focus on another dimension of comparison, namely, that across regional varieties, we see a picture of broad similarities which is not found on the register dimension, suggesting that the varieties share a common functional core. There is a general tendency for experiential perfects to outnumber resultatives, which in turn outnumber continuatives. Moreover, register influences on the present perfect’s interpretation operate in a similar fashion across varieties (see Figure 5.7). However, divergences can also be identified across the three varieties if we adopt a finer level of analysis. For example, in academic writing the AusE present perfect shows an extension to more atelic situations, in particular, to states described by be. This finding corresponds to a considerably higher present perfect frequency in AusE academic writing. A close examination of the discourse shows that the functional extension has to do with writers’ exploiting the present perfect’s current relevance to express an abstract present state in which previous actions and practices have the widest possible range of
relevance to the present argument. Another locus of regional variation is temporal specification. AmE differs from BrE and AusE in that the present perfect in AmE conversations is more likely to be modified by *always, never* and *ever* and not by vaguely anchored ±THEN adverbials (e.g., *already, recently, just*). While the latter pattern is a well-known aspect of British-American difference, the former has rarely been noted: the general impression has been that with these adverbials AmE tends to have a stronger preference for the simple past (Elsness, 1997, p. 354).

Finally, I have examined two atypical uses of the present perfect – those occurring in linguistic environments where most contemporary English grammars would suggest other tense forms. The small frequency of these uses does not lend itself to cross-varietal or cross-register comparisons. Nevertheless, it can be seen that present perfects with +THEN adverbials such as *yesterday* and *long ago* are triggered sometimes by local linguistic cues, and more generally, by a focus on the continued relevance of the past event to the discourse, which overrides the general collocation principle of temporal expressions. Moreover, in the BrE conversation data I have also identified instances of the present perfect which are similar to the ‘vivid narrative’ use found by Engel and Ritz in spoken AusE. The hallmark of this use is that the nature of the present state is not any context-specific explicature or implicature, but a generalised meaning of the dramatic immediacy of the narrative account.
Chapter 6  The present perfect in historical English corpora

This chapter will be devoted to earlier English. The issue to be explored is whether there are any changes in the use of the present perfect over the past two and a half centuries. So far the evolution of the present perfect in Modern English has only attracted limited research. As has been implied in Section 4.2.2, the semantic shift of *have* + past participle from a stative resultative to an anterior is generally assumed to have occurred in the Middle English period, with some incipient signs of grammaticalisation found in the Old English period (see Mitchell, 1985, p. 287; Visser, 1973, p. 2192). Accordingly, previous studies have often examined this transitional phase but have not explored the possibility of any further development in the Modern English period, when the meaning of past-situation-cum-current-relevance was already fully established. Elsness (1997) is the first systematic corpus-based investigation that attested such possibility. Using a collection of historical texts representing multiple genres, he showed that in AmE the overall ratio of the present perfect (with auxiliary *have*) vs the simple past declined dramatically over time, from 0.38 of the late 18th century to 0.13 of the present day. Furthermore, when science texts in the corpus are excluded, even BrE shows a similar decline, from 0.26 to 0.18. In view of these findings, Elsness (1997, p. 358) concludes that in Modern English the present perfect has been losing ground to the simple past in AmE, and that a similar trend has also begun in BrE.

Elsness’s finding raises a puzzle if we consider the evolution of the English present perfect in light of universal paths of grammaticalisation found across a range of Indo-European languages. Using Bybee et al.’s (1994) terminology, present perfects in Indo-European languages tend to follow a grammaticalisation path of ‘resultative > anterior > perfective’: anteriors which evolve from stative resultatives later become perfectives which merely describe past situations but do not express current relevance. For example, the formal equivalent of the English present perfect in contemporary French, the passé composé, has largely lost the current relevance meaning and replaced the inflectional passé simple. It is used in narrating sequences of past actions and in describing the exact temporal location of a situation. Consider Example (1), taken from the French novel *L’Étranger*. The bolded passé composés translate into English simple pasts. The English present perfect could not have been used in the translation – unless in
a nonstandard variety of the type studied by Engel and Ritz since the past events are not described by virtue of their relevance to the narrator’s ‘present’.


I took the bus at two o’clock. It was very hot. I ate at Céleste’s restaurant as usual. They all felt very sorry for me and Céleste told me, “There’s no one like a mother”.

(L’Étranger, Swart, 2007, p. 2297)

As a narrative tense, the French passé composé encodes perfectivity. The situation is viewed as a single whole and is mentioned for its own sake, independent of its relation to other times or situations. The bleaching of current relevance leads to the lack of constraint against specification by +THEN adverbials, as discussed in Section 2.1.2. Accordingly, compared with its English simple past, the French passé simple is more distributionally and functionally restricted, occurring only in formal and written registers. Other Indo-European languages such as German, Dutch and Spanish are found to be at different stages in the same historical process, via which the inflectional past tense eventually loses ground to the periphrastic perfect (Bybee et al., 1994; Dahl, 1985; Harris, 1982). This broad picture makes the English present perfect somewhat unusual.

The aim of this chapter is to explore whether the present perfect has undergone any functional shifts which may help to explain the construction’s frequency decline relative to the simple past since the late 18th century. Again I will adopt a quantitative approach, focusing mainly on frequency changes of statistical significance, since they provide strong evidence for language change. In what follows I will first introduce the database used for the diachronic comparison (Section 6.1). This is followed by an examination of changes in the construction’s frequency (relative to the simple past’s frequency) and interpretation in discourse (Sections 6.2 and 6.3). I will then report the results of a ‘variable rule’ analysis that explores how the present perfect has evolved in relation to the simple past, as manifested by changes in the patterning of linguistic elements that
condition their use (Section 6.4 with subsections). Finally, Section 6.5 summarises the findings of this chapter.

6.1 Overview of the data

Following the design of the previous synchronic analysis, the diachronic data also cover BrE, AmE and AusE. To facilitate comparison with the results of Elsness (1997) and at the same time map out a more detailed course of development, texts were divided into three fifty-year periods: 1750-99, 1850-99 and 1950-99. However, unlike Elsness (1997), the present study focuses on one particular genre, fiction, instead of multiple genres, insofar as fiction is the only genre containing representations of earlier speech for which data from all three varieties are available. For the younger varieties, especially AusE, it is difficult to obtain speech-related texts other than fiction, due to the lack of a literary tradition parallel to that developed in Great Britain. Direct speech in fiction has sometimes been used by researchers as a channel to gain insights into the properties of earlier speech (see Culpeper & Kytö, 2010). The reason why speech – as opposed to writing – is of particular interest is that dialectal variation has been suggested to be more pronounced in speech than in writing (Biber, 1995). Furthermore, diachronic change is often found to occur first in speech before spreading to the written language (Leech, Hundt, Mair, & Smith, 2009, p. 239). That being said, it must be borne in mind that that there is, undeniably, a considerable degree of variation in the extent to which direct speech in fiction resembles actual speech.

The BrE and AmE fiction texts are drawn from A Representative Corpus of Historical English Registers (‘ARCHER’). The corpus was first compiled in the early 1990s and has undergone two major expansions over the past twenty years. In its latest version (3.2), it consists of around 1,800,000 words, divided between nine registers (advertisement, diary, drama, fiction, legal, medicine, news, science and sermon) and between BrE (from 1650 till 1999) and AmE (from 1750 till 1999). Texts for each register/variety were categorised into fifty-year periods, so that BrE is represented by 7 periods, and AmE by 5 (see Yáñez-Bouza, 2011). For the purpose of the present study, 1

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1 As has been shown in Chapter 5, both the distribution and functions of the present perfect are highly sensitive to register variation. Thus focusing on one register has the additional benefit of reducing the difficulty in teasing apart register variation from diachronic change, one of the undesirable consequences of deriving frequency information from an unbalanced multi-genre historical corpus.
the fiction section of the corpus (version 3.2) was accessed in November 2012 at Northern Arizona University. The three fifty-year periods of interest were selected, resulting in a database comprised of 10 or 11 texts per variety in each time period. Since each fictional text contains around 4,000 words, both BrE and AmE are represented by roughly 40,000 words per period (see Table 6.1 below).

A note of caution should be entered with regard to the use of the term ‘American English’ for referring to the English language in America from 1750 to 1799. There is no doubt that by this time many cross-Atlantic linguistic differences – in particular lexical differences – had already been widely noted (Read, 1933/2002), and that AmE was on its way to being recognised as a distinct variety of English as a result of increased nationalism associated with Independence and the Revolutionary War. This process is reflected in the many voices in this period calling for the separation of AmE from BrE. For example, in a 1786 lecture, Noah Webster explicitly stated: “as an independent nation, our honor requires us to have a system of our own, in language as well as government” (as cited in Wolfram & Schilling-Estes, 1998, p. 17). Nevertheless, a high degree of continuity with the British heritage still prevailed, was upheld by many people, and was strengthened by the fact that high-ranking gentlemen from the colonies tended to receive their education in England. It was not until the 19th century that a distinctive regional variety became widely accepted, as can be seen from the publication of several well-known AmE dictionaries and grammars, such as Webster’s 1828 American Dictionary of the English Language. In this sense perhaps the term ‘American English’ is not as warranted as ‘English in America’ when used to refer to the English language in late 18th-century America. As Schneider (2007, p.50) comments, ‘English in X’ expresses that the dialect in question is simply a transplanted variety without its unique character or identity, while ‘X English’ acknowledges the dialect’s independent status, setting it on equal terms with the parent variety. In a word, evidence of conflicting linguistic orientations in 1750-99 makes it impossible to pinpoint a clear demarcation line in the transition from English in America to AmE. Nevertheless, for convenience and uniformity, I will use the term AmE throughout.

For AusE there is no historical corpus directly comparable to ARCHER, so data were collected from various sources. The first fifty years, 1750-99, had to be excluded due to the lack of a sufficient body of AusE literary works written in that period. For 1850-99, I made use of the ‘narratives: novels and short stories’ section (21 texts) of A
Corpus of Oz Early English (‘COOEE’), compiled by Clemens Fritz. The corpus contains around 2 million words of English produced in Australia from 1788 to 1900, covering a range of written and speech-related registers (Fritz, 2004). Since texts in COOEE vary considerably in length, each text had to be trimmed to around 2,000 words to avoid bias towards certain authors.

It should be noted that English in Australia in the late 19th century is characterised by the same type of terminological difficulty as that for its older American sibling a century earlier. Even though the formation of an identifiable Australian variety of English can be traced to as early as the 1830s, and a clear distinction between the native-born and the English-born pronunciation was already noted by many English visitors to Australia at that time (Collins & Blair, 2001), most scholars would still agree that the emergence of a positive attitude towards the variety did not begin to develop until the 20th century, during which social and political changes gave rise to a new, regionally founded national identity oriented away from its British roots (Delbridge, 2001; Schneider, 2007). Substantial progress in codification only occurred in recent decades, as can be seen from, for example, the publication of the Macquarie Dictionary (Delbridge, Bernard, Blair, Ramson, & Butler, 1981) and the Australian English Style Guide (Peters, 1995). So although I will not replace ‘AusE’ with the term ‘English in Australia’ when referring to the 1850-99 fiction data, the latter is arguably more accurate than the former, given the linguistic and social orientations of late 19th-century Australia.

For 1950-99 AusE fiction a wide range of resources is available. It would of course have been possible to use the fiction section of ICE-AUS sampled in the early 1990s, or the written Australian Corpus of English (‘ACE’) sampled in 1986. However, a decision was made to sample a few texts for each decade, so as to offer a more balanced representation of fictional writing of the period. 27 extracts, no more than 2,000 words each and around 44,000 words in total, were therefore taken from two anthologies: The Macquarie PEN Anthology of Australian Literature (Jose, 2009) and The Macmillan Anthology of Australian Literature (Goodwin & Lawson, 1990). Attention was paid to exclude historical fiction. The extracts were scanned, converted into machine-readable form and then manually corrected. Each extract was assigned a file name with same

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2 The file numbers are: 3-165, 3-166, 3-173, 3-174, 3-243, 3-273, 3-295, 4-015, 4-023, 4-104, 4-124, 4-271, 4-306, 4-310, 4-316, 4-370, 4-373, 4-381, 4-383, 4-397, 4-398.
format as of ARCHER texts: year of publication followed by the first four letters of the author’s last name. For example, ‘1957stiv’ stands for an extract from a novel written by Dal Stivens published in 1957. Details of the source texts for 1950-99 AusE are listed in Appendix II.

The following table presents a summary of the fiction data on which the diachronic comparison is based. It can be seen that the number of words for each variety in every period is roughly 40,000, so that the analysis is based on slightly less than 320,000 words in total.

### Table 6.1 Data for the diachronic analysis

<table>
<thead>
<tr>
<th>Variety</th>
<th>Time period</th>
<th>Source</th>
<th>No. of texts</th>
<th>No. of words</th>
</tr>
</thead>
<tbody>
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<td>1750-99</td>
<td>ARCHER</td>
<td>10</td>
<td>40,735</td>
</tr>
<tr>
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<td>ARCHER</td>
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</tr>
<tr>
<td></td>
<td>1950-99</td>
<td>ARCHER</td>
<td>10</td>
<td>37,008</td>
</tr>
<tr>
<td>AmE</td>
<td>1750-99</td>
<td>ARCHER</td>
<td>11</td>
<td>41,071</td>
</tr>
<tr>
<td></td>
<td>1850-99</td>
<td>ARCHER</td>
<td>11</td>
<td>39,186</td>
</tr>
<tr>
<td></td>
<td>1950-99</td>
<td>ARCHER</td>
<td>10</td>
<td>37,928</td>
</tr>
<tr>
<td>AusE</td>
<td>1850-99</td>
<td>COOEE</td>
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<td>40,980</td>
</tr>
<tr>
<td></td>
<td>1950-99</td>
<td>various</td>
<td>27</td>
<td>43,974</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>316,426</strong></td>
</tr>
</tbody>
</table>

6.2 Frequency analysis

In this section I report findings of the frequency analysis for the present perfect and the simple past in the database.

I begin with a description of the data coding process. The first step in this process is to separate direct conversations from monologic, narrative sections in the texts. This procedure is highly necessary because of the genre-sensitivity of the distribution of the two verb forms. In past narratives, the simple past can be used as a default tense and the present perfect only very rarely occurs. As Van Herk (2008, p. 59) comments, narrative
discourse exerts a near-categorical effect in favour of the simple past, with complicating action clauses massively disfavouring the present perfect. Since the proportions of conversations and narratives are by no means equal across periods and varieties, conflating the two text types would inevitably lead to a distorted picture of the distribution of verb forms.

In identifying direct conversations it was found that quotation marks do not make a sufficiently reliable cue. Sometimes extended narratives also appear in the form of quoted speech. Therefore two content-based criteria were employed: (a) for the verb forms to be coded in the present study, a conversation must contain more than one adjacent pair produced by two different fictional speakers; (b) the events described cannot be exclusively located in the past, and other temporal references must be involved.

As a second step, present perfects and simple pasts in the selected conversations were manually coded. Present perfects were identified by searching for have, has, hath, hast, ’ve and ’s followed by the past participle. As before, I excluded the verb got, due to the idiomatic nature of the expressions it occurs in, and sentences such as He’s gone, due to structural ambiguity. All subjunctive uses of the simple past (as in If I were you I would disagree) were also excluded because we are only concerned with the simple past’s function of expressing temporal relations, not modal meanings. The treatment of coordinate verb phrases follows that in the synchronic analysis: only the first present perfect was coded in sentences of the type He has come and left. However, both simple pasts were coded if they occur next to each other in a sentence such as He came and left.

Another point to note with regard to data coding is that the two verb forms were less predictable in earlier English than they are today. Lass (2006, p. 98) summarises four main options of the irregular verb paradigm in Late Modern English, aside from the option of becoming regularised:

(2) Pattern 1: Historically expected: sing/sang/have sung

Pattern 2: Historical past plural or past participle generalised to both past and past participle: sing/sung/have sung
Pattern 3: Historical past singular generalised to past and past participle: 
*sing*/sang/have sang

Pattern 4: Historical past vowel in past participle and vice versa: 
*sing*/sung/have sang

Lass also compares the works of several 17th- to 18th-century grammarians to highlight variation in the verb forms of this period. Such variation was occasionally noted in our data:

(3) a. In a week that he hath been in my house, he **hath drank** only part of one bottle of wine.  
   [ARCHER 1751fiel.f4b]
   
   b. She threw herself into an arm-chair, and **begun** to harangue in the following manner.  
   [ARCHER 1751cove.f4b]

The above variant forms of the past and the past participle were included in the analysis. What this means is that the only consistent formal difference between the present perfect and the simple past is the whether the auxiliary *have* is present.
Consider now Figure 6.1, which presents the distribution of the present perfect and the simple past in the historical database. We find that present perfect vs simple past ratios are fairly similar across the varieties in the 18\textsuperscript{th} century (BrE 0.35, AmE 0.42) and the 19\textsuperscript{th} century (BrE 0.39, AusE 0.43, AmE 0.37). However, by the late 20\textsuperscript{th} century, BrE and AmE evidence remarkably lower ratios, that in AmE (0.12) even lower than that in BrE (0.21). When the 19\textsuperscript{th} and 20\textsuperscript{th} century data are compared, both ratio declines are highly significant on the chi-square test (BrE: $\chi^2 = 16.09$, $p < 0.001$; AmE: $\chi^2 = 39.07$, $p < 0.001$). This finding corresponds nicely with the results of Elsness (1997). In his study, the present perfect vs simple past ratio in fictional direct speech dropped from 0.50 to 0.33 in BrE and from 0.43 to 0.13 in AmE during the period from 1750-99 to 1950-99. It can therefore be concluded that there is cumulatively persuasive evidence indicating that the present perfect has been losing ground to the simple past in the two varieties. Moreover, our results show that this tendency is a fairly recent development, having occurred mainly in the 20\textsuperscript{th} century, and can be characterised as an instantiation of what Leech et al. (2009, p. 252-256) refers to as ‘Americanisation’, a process manifested in the pattern where AmE takes the lead in increasing or decreasing frequency. Using diachronic data of the late 20\textsuperscript{th} century, Leech et al. were able to show that American leadership is present in the frequency changes of a number of
grammatical categories – for example, the decline of the modal auxiliaries, the *be*-passive and the *wh*-relative, and the rise of the *to*-infinitive, epistemic *have to* and the *s*-genitive – and can therefore be seen as ‘one of the major moving forces on BrE’ (ibid., p. 243). Nonetheless, as Leech et al. cautioned, Americanisation does not necessarily signal direct transatlantic influence through dialect contact, but could merely be a tendency for changes common to varieties of English to be more dramatic in AmE.

We also see in Figure 6.1, somewhat unexpectedly, that AusE appears to be differentiating itself from BrE and AmE: its present perfect vs simple past ratio in fictional conversations has remained stable over the past one-and-a-half centuries ($\chi^2 = 0.24, p > 0.05$), ending up at the point of 0.40 in 1950-99, which is significantly lower than BrE and AmE. This finding appears to contradict to some extent the general tendency gleaned previously that AusE lies somewhere between BrE and AmE in terms of its present perfect use. For example, in the previous chapter we saw that the frequency of the present perfect in face-to-face conversations for AusE is lower than that for BrE but higher than that for AmE. Similarly, the present perfect vs simple past ratio in face-to-face conversations, which are derivable from Table 2 in Appendix I, is lower in AusE (0.09) than BrE (0.13). If these observations are correct, then the discrepancy between our findings for fictional conversations and face-to-face conversations might be explained by differences in the situational contexts in which the language is used: Australian writers may prefer to adopt in their writing a more conservative style. The drawing of broader inferences regarding tendencies in other registers must await further research. Nonetheless, focusing on fictional conversations alone allows us to reveal AusE’s conservatism, for which further evidence will be given in the ensuing sections.
6.3 Interpretations of the present perfect

My aim in this section is to explore the functional basis of the present perfect’s (relative) frequency decline. Specifically, I examine if there have been any changes in the distribution of its three interpretations in BrE, AusE and AmE, from 1750 to the present day.

The coding scheme for the interpretation of the present perfect is the same as that used previously for the synchronic data (see Section 5.3.2). A total of 857 unambiguously interpreted tokens, or 91.2% of all present perfects clauses in the historical database were coded; their distribution across the three interpretation types is shown in Figure 6.2. Several noteworthy diachronic tendencies can be identified. To begin with, the proportion of continuative perfects relative to that of (unambiguous) non-continuative perfects increases in all the varieties, but to various extents. In BrE such proportion starts at 13.2% in 1750-99 and ends at 17.6% in 1950-99 – a mild, insignificant rise ($\chi^2 = 0.47, p > 0.05$). In AmE the increase is much more remarkable, with the proportion of continuative perfects starting from roughly the same point, 12.5%, and reaching 37.1% two hundred years later ($\chi^2 = 10.51, p < 0.01$). AusE is more similar to BrE than to AmE in that the increase is only mild, from 20.2% to 29.4% ($\chi^2 = 2.27, p > 0.05$), although it begins at a higher point than BrE in 1750-99.
Figure 6.2  Interpretations of the present perfect in the historical database (ambiguous tokens excluded; raw frequencies indicated by column labels)

With regard to the proportion of resultative perfects relative to that of (unambiguous) non-resultative perfects, we see that both BrE and AusE display long-term stability (BrE 27.3% → 29.7%, \(\chi^2 = 0.05, p > 0.05\); AusE 29.0% → 30.6%, \(\chi^2 = 0.02, p > 0.05\)). By contrast, AmE shows a marked decline which approaches statistical significance (36.3% → 21.0%, \(\chi^2 = 3.22, p = 0.07\)), the mirror image of the increasing proportion of continuatives in this variety. Thus what we find in Figure 6.2 regarding fictional conversations confirms our previous finding for actual spoken conversations, that compared with BrE and AusE, AmE has a stronger preference for continuative perfects and a stronger dispreference for resultative perfects (see Figure 5.7 in Chapter 5).

What the above proportional changes reveal about the evolution of the present perfect is that, even though its basic meaning of past-situation-cum-current-relevance has been fully established in the Modern English period, as existing grammars would commonly suggest, there has been a shift in the nature of current relevance, or on the present analysis, in the possible nature of the present state inference, from the resultative to the continuative. In other words, there has been a tendency for the English present perfect to be more likely used for expressing the continuation of a situation or
its habitual state at present, and less likely used for expressing the present persistence of a target-state result. AmE is apparently at the forefront of this process, its proportional change being the most remarkable of the three varieties. Accordingly, the present perfect’s relative frequency decline observed in the previous section, which is also most advanced in AmE, can be suggested to be attributable largely to the decline of the resultative perfect. The increase in the relative popularity of continuatives is apparently not sufficient to counterbalance the frequency decline.

Before I discuss the implications of the historical process outlined above, it is necessary to examine the supporting evidence in more detail, and specifically, to pin down precise changes in the present perfect’s co-occurrence with various linguistic factors which influence its interpretation and which also play a role in its grammaticalisation. This will be the task of the next section.

6.4 Variable rule analysis
6.4.1 The method

The linguistic factors to be examined in this section are: temporal specification, situation type, negation, transitivity and interrogation. The relationship between temporal specification, situation type, negation and interrogation on the one hand and the interpretation of the present perfect on the other has already been discussed in detail in the foregoing sections. Additionally, temporal specification and situation type have also been shown to be crucially involved in the have + past participle’s the transition from a stative resultative to an anterior: the process is marked by the construction’s increased association with frequency and duration adverbials – as opposed to present state adverbials such as now – and with situations that are not compatible with target-state results. Transitivity was also added into the analysis because the grammaticalisation of have + past participle is known to have also been manifested in the construction’s extension from transitives to non-transitives (see Section 4.2.2). The coding scheme for the five factors will be explained in the following sections in more detail.

Previous research on the evolution of the present perfect has also examined other factors, such as the temporal location of the situation (distant vs recent past), subject type (animate vs inanimate subject) and clause type (main vs relative) (Copple, 2011;
Elsness, 1997; Schwenter & Torres Cacoullos, 2008). These factors are not included due to either difficulty of operationalisation or insufficient tokens in the database. The lack of contextual information about the precise temporal location of the situation makes coding unreliable, and the small numbers of present perfects with inanimate subjects or in relative clauses are not suitable for quantitative analysis.3

One central issue that we are concerned with is in what ways changing co-occurrence patterns with these linguistic elements may be implicated in the development of the functional contrast between the present perfect and the simple past. Our aim is to evaluate the roles of linguistic factors underlying speakers’ choice between the two verb forms at different times in history. Comparing the two verb forms helps us to gain insights about how the present perfect’s functional domain has evolved in relation to that of its main competitor. It also makes it possible to determine whether co-occurrence changes are specific to the present perfect, or are simply part of general stylistic shifts that have occurred in English fictional conversations over the past few centuries. The latter possibility has been attested by Biber and Finegan (2001), who examined stylistic shifts in an earlier version of ARCHER using a factorial model. Among their findings is a tendency for fiction to show an increase in the number of situation-dependent references – which include temporal adverbials in their model – from the 18th century onwards (see Footnote 15 in Chapter 5 for a brief description of the methodology). A similar general increase is plausible for negation, given its higher frequency in interactional, informal registers (Biber, 1988, p. 102), and given the attested status of ‘colloqualisation’ – the process by which writing become more speech-like – as a powerful driving force of the evolution of English registers (Biber, 2003; Leech et al., 2009). Thus in order to better tease apart co-occurrence changes reflecting the present perfect’s grammaticalisation from those reflecting general stylistic shifts that affect more than one linguistic category, my focus will not be restricted to the present perfect alone, but will be on the present perfect/simple past contrast.

The methodology adopted is the ‘variable rule’ analysis developed by David Sankoff in the 1960s and now widely employed in variationist sociolinguistic research. The model is a modified version of logistic regression, which is a type of probabilistic

3 The hypothesis is that with continued grammaticalisation, the present perfect will be more frequently used to express past situations that are located in the distant past. It will also show weaker preferences for relative clauses (which present background information) and animate subjects (which are associated with its original meaning of possession).
classification model capable of estimating binary output from input variables (Cedergren & Sankoff, 1974; Sankoff, 1988). Variable rule analysis is well-suited to describe systematic influence on speakers’ choice of one linguistic form over another. There are three levels of evidence available for interpreting the results of a variable rule analysis (Poplack & Tagliamonte, 2001, p. 92; Tagliamonte, 2002, p. 731, 2012, p. 112):

1. Statistical significance: which factors have statistically significant influence (at the 0.05 level) on speakers’ choice of a certain linguistic form?

2. Effect magnitude (relative strength): which factor has the most significant influence?

3. Constraint hierarchy: what is the order of factor values within a particular factor?

In a variable rule analysis, the influence of factors is measured by ‘factor weight’, which has a value between 0 and 1. When a factor weight is closer to 1, it is interpreted as favouring the choice of a certain linguistic form; when closer to 0, it is interpreted as disfavouring the choice. 0.5 is generally taken as the dividing line between favouring and disfavouring effects, although a more accurate criterion is the relative position of factor weights vis-à-vis each other (Tagliamonte, 2006, p. 145). The effect magnitude of a factor, or its relative strength, is measured by ‘range’, which is calculated by subtracting the lowest factor weight from the highest. When comparison is made across factors, the highest range identifies the strongest effect, the lowest range the weakest. ‘Constraint hierarchy’ is the ranking of factor weights (from more to less) within a factor. It is taken as a detailed representation of the structure of relationship between the input and output variables, especially when the measure of statistical significance is made less revealing by databases of very different sizes (Tagliamonte, 2006, p. 237).

In this study the analyses were performed by the step-up/step-down procedure of Goldvarb X for Windows (Sankoff, Tagliamonte, & Smith, 2012). Initial crosstabulation points to some obvious interaction between the linguistic factors. To illustrate, atelic situations tend to correlate with intransitive verbs, and with duration.

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4 The variationist literature uses the term ‘factor groups’ to refer to input variables in the regression, and ‘factors’ to refer to the values of a particular input variable (see Tagliamonte, 2012, p. 121). These conventions will not be adopted in this study to avoid possible confusion.
adverbials (as in *He has lived here for three years*). Because the statistical model assumes that all input variables are noninteractive (Tagliamonte, 2012, p. 132), in order not to overtax the model it was decided to evaluate the contribution of each factor independently of others at one time period per variety, instead of putting all factors into a multivariate analysis.\(^5\) For each factor, discussion of the results of the analysis will be complemented by a distribution analysis of the factor’s co-occurrence with the two verb forms.

One final comment should be made about the ‘variable context’ – the linguistic context in which the output variables occur. Traditionally, variationist research only looked at variables that have strict semantic equivalence – ‘alternative ways of saying the same thing’ (see Labov, 1972, p. 8; Sankoff, 1980, p. 55). Examples of such items at the level of phonology are the contrasts between /t/ and /d/ in word-final consonant clusters, and between /n/ and /ŋ/ in word-final -ing. At the level of morphosyntax, alternation of semantically equivalent forms may involve variable inflections such as genitive -s vs of genitive, and periphrastic comparative *more* vs synthetic -*er*. Over time scholars have replaced the notion of strict semantic equivalence with one of functional equivalence, arguing that forms with distinct referential meanings in theory can be used interchangeably in some linguistic contexts in practice, to refer to the same state of affairs (Sankoff & Thibault, 1981; Weiner & Labov, 1983). More recently, Schwenter and Torres Cacoullos (2008) have advocated an even broader approach, which includes in the variable context linguistic forms that are in competition with each other along the path of grammaticalisation. This approach is motivated by two phenomena: (a) ‘layering’, which is the availability of different forms to serve ‘similar or even identical functions’ (Hopper, 1991, pp. 22-24), and (b) ‘retention’ (Bybee & Pagliuca, 1987) or ‘persistence’ (Hopper, 1991), which is the possibility for evolving constructions to embody old and new semantic features at the same time. Scholars adopting this broad approach have created comprehensive profiles of factors that condition the use of grammaticalising items (Aaron, 2010; Copple, 2011; Schwenter & Torres Cacoullos, 2008). The above conceptual developments in variationist sociolinguistic research enable us to include into the variable context all uses of the present perfect and the simple past for expressing temporal anteriority. The two verb forms not only have

\(^5\) Note that although this treatment returns fairly straightforward results for cross-varietal and diachronic comparisons, it glosses over the complex interaction between the choice of the present perfect over the simple past with various elements in the linguistic environment.
similar functions in discourse (see discussion on their functional equivalence in Section 4.2.1), but also represent two competing variants along the proposed ‘anterior > perfective’ path.

### 6.4.2 Temporal specification

This section focuses on findings for temporal specification. Coding of temporal specifiers was again based on the classification scheme developed in Section 4.1.2: an initial distinction was made between temporally specified and unspecified clauses, and then the ten types of temporal specifiers were coded, following a ‘code fine, merge later’ strategy (see also Section 5.3.3). However, cross-tabulation reveals that only the distribution of temporal quantifiers (*always, never and ever*) as a group – with the two verb forms in all varieties and at all time periods – satisfies the model’s requirement for the minimal number of tokens in each cell. All other temporal specifiers were therefore merged into the category ‘other specifiers’ in the regression. Their raw frequencies are presented in Table 5 in Appendix I.

Table 6.2 displays the results of eight independent variable rule analyses – three for BrE, two for AusE and three for AmE – based on the entire set of present perfects and simple pasts in the historical data. In this and the following tables, significant factors are bolded and non-significant ones are indicated by brackets.

#### Table 6.2 Variable rule analysis of the contribution of temporal specification to the choice of the present perfect over the simple past

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<tr>
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<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
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</tbody>
</table>
Temporal specification tends to have a significant influence on the choice of the present perfect over the simple past. It also has a considerable effect magnitude, as will be seen from comparison with other factors discussed below. If we examine differences in constraint hierarchy across time periods, we find a notable change in the role played by *always/never/ever*: as a group these adverbs develop a strong co-occurrence tendency with the present perfect (as opposed to the simple past) during the past two and a half centuries. In 1750–99 they have a disfavouring effect on the choice of the present perfect in BrE (0.46), and a mild favouring effect in AmE (0.55), which is second to that of other specifiers (0.83). In 1950–99 they show a favouring effect in BrE (0.64) and climb to the top in AmE (0.85). The constraint ranking in 1850–99 AusE is similar to that of BrE a century earlier, whereas by the late 20th century AusE clearly becomes more American-like, with *always/never/ever* being most favourable (0.75) for the present perfect, surpassing other specifiers (0.78). Consistent with these changes, an examination of the underlying frequencies in the Appendix indicates that the percentage of present perfects modified by *always/never/ever* out of all present perfects increases from 2.9% to 6.4% in BrE, from 5.8% to 15.4% in AusE, and from 4.8% to 18.6% in AmE. Such increases are not evidenced in the changes in the percentage of simple pasts modified by these adverbs over time (BrE 3.6% → 3.8%; AusE 6.2% → 5.2%; AmE 4.0% → 3.9%).

Note that under very limited circumstances in standard English *never* may function as a nonquantificational sentential negator with the simple past tense, specifically in the ‘window-of-opportunity’ use, where a temporally restricted event could theoretically have taken place during a certain time window but did not (as in *You say he never came home that night?* [BNC G3E 1607]) (Lucas & Willis, 2012). I only found one instance of this use in my data:

They [the letters] *never were* received from me, and are forgeries.

[ARCHER 1799brow.f4a]
The above findings are indicative of two tendencies. First, even though the present perfect has been losing ground to the simple past in terms of overall frequency, its association with particular functions has been strengthened. Recall that in Section 5.3.3 it was posited that when used to modify the present perfect, always, never and ever have in common that they quantify over a contextually determined up-to-now time span. It can therefore be suggested that the present perfect has been increasingly used to evoke the interpretation that the situation is located in or fills up the up-to-now. Secondly, functional specialisation is clearly most advanced in AmE, where the present perfect’s frequency decline is also most dramatic. What this indicates is that functional specialisation is likely to become more pronounced with the construction’s continued frequency decline. Note that this does not necessarily entail a decline in the number of always/never/ever co-occurring with the simple past. Rather, such co-occurrences might become more frequent as a result of the simple past’s general frequency increase. A wider distribution of the simple past explains the finding of Elsness’s (1997) elicitation test that speakers of Contemporary AmE have a stronger preference for the simple past to the present perfect with always/never/ever, in comparison with their British counterparts.

Our results for always/never/ever are consistent with Carey’s (1994) findings from earlier English. In her Middle English data taken from Layamon’s Brut and Sir Gawain and the Green Knight, Carey notes that ever and never barely appear with the perfect but instead with the simple past, a tendency also commented on by Denison (1993, p. 366), whereas duration adverbials such as before, since and hitherto and frequency adverbials such as often regularly occur with the present perfect. It would thus stand to reason that the up-to-now time span expressed by the present perfect was first conventionalised by duration and frequency adverbials, before generalising to always/never/ever. Correspondingly, in my Late Modern English texts I found occasional uses of the simple past with always/never/ever where speakers of Contemporary English (especially BrE) would prefer the present perfect. In (4a)-(4c), the contexts feature strong present-time orientation, as indicated by the present tense

There is also one instance of nonstandard use of never:

“What horrible sound was that which issued from your diaphragm, you villain?” asked the captain.
“‘I never said nothin’, <sur”> sir”
[ARCHER 1854cook.f6a]

These instances were not removed from the analysis given their small numbers.
and modal verbs preceding and/or following the simple pasts. The situations described by the simple pasts are invariably understood as relevant to the present:

(4) a. “My good friend,” said Edmund, “I never shall be able to deserve or requite your kindness to me.” “My dear Sir, you always **deserved** more than I could do for you; and I think I shall yet live to see you defeat the designs of your enemies, and acknowledge the services of your friends.”

   [ARCHER 1778reev.f4b]

b. ‘He calls himself a gentleman,’ said Bondum; ‘but I am sure I never **saw** anything genteel by him. In a week that he hath been in my house, he hath drank only part of one bottle of wine.’

   [ARCHER 1751fiel.f4b]

c. “Sirs,” said the prince, “ye are the first guests I **ever** treated within these walls, who scorned to hold intercourse with me…”

   [ARCHER 1751cove.f4b]

A final point regarding temporal specification is that significant increase is not only evident in the percentage of present perfects modified by *always/never/ever*, but also in the overall percentage of temporal specified present perfects. This can be seen from percentage changes in the two verb forms with and without temporal specification, shown in Table 6.3. Comparing the figures for the first and last fifty-year period of each variety, we find that the number of temporally specified present perfects invariably increases at the expense of that of unspecified present perfects (BrE 21% → 29%, AusE 23% → 29%, AmE 17% → 43%). The increase in AmE is highly significant on the chi-square test ($\chi^2 = 11.58, p < 0.001$). In comparison, changes in the percentage of temporally specified simple pasts are only minor and insignificant (BrE 10% → 13%; AusE 15% → 14%; AmE 7% → 12%). What these tendencies suggest is that the percentage rise of temporal specified present perfects cannot be attributed solely to the general increase of situation-dependent references in English fiction (Biber & Finegan, 2001), but must be seen as a co-occurrence change specific to the present perfect. As its (relative) frequency falls, its use is more heavily dependent on the availability of other linguistic cues.
Table 6.3  Frequencies of the present perfect and the simple past by temporal specification (vertical percentages)

(a) BrE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Unspecified</td>
<td>107(79%)</td>
<td>353(90%)</td>
<td>111(78%)</td>
</tr>
<tr>
<td>Specified</td>
<td>29(21%)</td>
<td>39(10%)</td>
<td>32(22%)</td>
</tr>
<tr>
<td>Total</td>
<td>136 (100%)</td>
<td>392(100%)</td>
<td>143(100%)</td>
</tr>
</tbody>
</table>

(b) AusE

<table>
<thead>
<tr>
<th></th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pres perf</td>
<td>Past</td>
</tr>
<tr>
<td>Unspecified</td>
<td>160(77%)</td>
<td>407(85%)</td>
</tr>
<tr>
<td>Specified</td>
<td>47(23%)</td>
<td>74(15%)</td>
</tr>
<tr>
<td>Total</td>
<td>207(100%)</td>
<td>481(100%)</td>
</tr>
</tbody>
</table>

(c) AmE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Unspecified</td>
<td>70(83%)</td>
<td>186(93%)</td>
<td>83(70%)</td>
</tr>
<tr>
<td>Specified</td>
<td>14(17%)</td>
<td>13(7%)</td>
<td>32(30%)</td>
</tr>
<tr>
<td>Total</td>
<td>84(100%)</td>
<td>199(100%)</td>
<td>115(100%)</td>
</tr>
</tbody>
</table>

6.4.3  Situation type

We now move on to the next factor selected for the variable rule analysis: situation type. The coding follows the three-way classification scheme previously presented in Section 5.3.2, according to which situations are grouped first into telic and atelic, and the former
is further grouped into those with and without target-state results. The two distinctions are highly relevant in the present perfect’s grammaticalisation from a stative resultative to an anterior. As has been pointed out in my discussion on the construction’s diachronic change (Section 4.2.2), the resultative *have* + past participle in Old English essentially expresses that the subject is in a possessive relation with the object, which in turn is in the target state of a past event. For example, *I have my work finished* in Old English would express ‘I possess my work in a finished state’, such state being the target state of the event *finish my work*. Its nature is lexically specified and can be inferred without pragmatic enrichment on the part of the audience. Gradually, the focus shifted to the inherent properties of the event and its continued relevance, as motivated by the pragmatic inferential mechanism oriented towards optimal relevance. The construction began to combine with a wider range of situation types, including events without target-state results, states and activities. With these situation types, the present state cannot be a target state, and the notion of resultativeness, whenever expressed, must be manifested as the availability of a present-state implicature whose semantic content is not lexically restricted.

121 tokens (3.1%) out of the 3959 present perfects and simple pasts coded in the historical database were found to be ambiguous between two or more situation types. These tokens, whose frequency breakdown is shown in the ‘ambiguous’ row in Table 6.5, were removed from the variable rule analysis. The results for the remaining verb forms are presented in Table 6.4:

**Table 6.4** Variable rule analysis of the contribution of situation type to the choice of the present perfect over the simple past

<table>
<thead>
<tr>
<th></th>
<th>BrE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1750-99</td>
<td>1850-99</td>
<td>1950-99</td>
</tr>
<tr>
<td><strong>Telic w/ target-state results</strong></td>
<td>.53</td>
<td>.58</td>
<td>.70</td>
</tr>
<tr>
<td><strong>Telic w/o target-state results</strong></td>
<td>.64</td>
<td>.68</td>
<td>.76</td>
</tr>
<tr>
<td><strong>Atelic</strong></td>
<td>.40</td>
<td>.35</td>
<td>.30</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>24</td>
<td>33</td>
<td>46</td>
</tr>
</tbody>
</table>

**AusE**
It can be seen that situation type has a significant impact on the choice of the present perfect in almost all varieties/time periods. Atelic situations generally disfavour the present perfect, as is predictable from the construction’s resultative roots. Events with target-state results have the strongest favouring effect in BrE and the second strongest in AusE. Notably, in both varieties the constraint hierarchy remains constant whereas the effect magnitude is strengthened over time (BrE 24 → 46; AusE 20 → 29), a finding that corresponds to the long-term stability of the proportion of resultative perfects in the two varieties observed in Section 6.3. On the other hand, AmE exhibits a remarkable change: the situation type effect, which is significant in the 18th and 19th centuries, disappears by the 20th century. These tendencies are confirmed if we examine the frequency findings for situation type, shown in Table 6.5:

<table>
<thead>
<tr>
<th>Situation Type</th>
<th>Pres perf</th>
<th>Past</th>
<th>Pres perf</th>
<th>Past</th>
<th>Pres perf</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telic w/ target-state results</td>
<td>.61</td>
<td>.69</td>
<td>.55</td>
<td>.46</td>
<td>.41</td>
<td>.40</td>
</tr>
<tr>
<td>Telic w/o target-state results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atelic</td>
<td></td>
<td></td>
<td>.41</td>
<td>.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
<td>20</td>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 6.5** Frequencies of the present perfect and the simple past by situation type (vertical percentages)

(a) BrE

<table>
<thead>
<tr>
<th>Period</th>
<th>Telic w/ target-state results</th>
<th>Telic w/o target-state results</th>
<th>Atelic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1750-99</td>
<td>44(32%)</td>
<td>115(29%)</td>
<td>42(31%)</td>
</tr>
<tr>
<td></td>
<td>115(29%)</td>
<td>47(33%)</td>
<td>183(47%)</td>
</tr>
<tr>
<td>1850-99</td>
<td>47(33%)</td>
<td>88(24%)</td>
<td>40(30%)</td>
</tr>
<tr>
<td></td>
<td>88(24%)</td>
<td>38(40%)</td>
<td>192(52%)</td>
</tr>
<tr>
<td>1950-99</td>
<td>38(40%)</td>
<td>101(23%)</td>
<td>18(19%)</td>
</tr>
<tr>
<td></td>
<td>101(23%)</td>
<td>260(58%)</td>
<td></td>
</tr>
</tbody>
</table>

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The percentage of present perfects expressing events with target-state results out of all present perfects undergoes a decline only in AmE – specifically, from 43% to 29% during the last one hundred and fifty years – but not in BrE (32% → 33% → 40%) or AusE (38% → 45%). Although the decline is not statistically significant, what has been observed so far clearly suggests that the present perfect in AmE has moved further away...
from its resultative roots since the late 19th century, becoming less associated with the present persistence of an event’s target-state result.

6.4.4 Transitivity

This section further examines possible changes in the role played by transitivity on the selection of the present perfect over the simple past. Following the typology of Quirk et al. (1985, p. 54), verb forms were classified depending on whether they take objects (transitive) or not (non-transitive). The category of transitives includes monotransitives (verbs taking one object, such as feed (the dog)), ditransitives (verbs taking two objects, such as give (him a present)) and complex transitives (verbs followed by a subject complement or an adverbial, such as consider (it wrong) and put (the toys upstairs)). Non-transitives include copular verbs (verbs followed by a subject complement or an adverbial, such as become (independent) and be (in the garden)) and intransitives (verbs followed by no obligatory element, such as smile). Phrasal verbs were also classified into transitives and non-transitives depending on whether an object is present. For example, turn on (the light) was coded as transitive, and turn aside as non-transitive. Results of the variable rule analysis for transitivity are presented in Table 6.6, and the frequency findings, in Table 6.7:

Table 6.6 Variable rule analysis of the contribution of transitivity to the choice of the present perfect over the simple past

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BrE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitive</td>
<td>.61</td>
<td>.58</td>
<td>.57</td>
</tr>
<tr>
<td>Non-transitive</td>
<td>.32</td>
<td>.40</td>
<td>.43</td>
</tr>
<tr>
<td>Range</td>
<td>29</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td><strong>AusE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitive</td>
<td>[.51]</td>
<td>[.52]</td>
<td></td>
</tr>
<tr>
<td>Non-transitive</td>
<td>[.49]</td>
<td>[.48]</td>
<td></td>
</tr>
<tr>
<td><strong>AmE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transitive</td>
<td>Non-transitive</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Transitive</td>
<td>0.67</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>Non-transitive</td>
<td>0.57</td>
<td>0.42</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>38</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.7 Frequencies of the present perfect and the simple past by transitivity (vertical percentages)

(a) BrE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
<td>Past</td>
</tr>
<tr>
<td>Transitive</td>
<td>111(82%)</td>
<td>225(57%)</td>
<td>96(67%)</td>
</tr>
<tr>
<td>Non-transitive</td>
<td>25(18%)</td>
<td>167(43%)</td>
<td>47(33%)</td>
</tr>
<tr>
<td>Total</td>
<td>136(100%)</td>
<td>392(100%)</td>
<td>143(100%)</td>
</tr>
</tbody>
</table>

(b) AusE

<table>
<thead>
<tr>
<th></th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Transitive</td>
<td>114(55%)</td>
<td>251(52%)</td>
</tr>
<tr>
<td>Non-transitive</td>
<td>93(45%)</td>
<td>230(48%)</td>
</tr>
<tr>
<td>Total</td>
<td>207(100%)</td>
<td>481(100%)</td>
</tr>
</tbody>
</table>

(c) AmE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
<td>Past</td>
</tr>
<tr>
<td>Transitive</td>
<td>67(80%)</td>
<td>89(45%)</td>
<td>73(63%)</td>
</tr>
<tr>
<td>Non-transitive</td>
<td>17(20%)</td>
<td>110(55%)</td>
<td>42(37%)</td>
</tr>
<tr>
<td>Total</td>
<td>84(100%)</td>
<td>199(100%)</td>
<td>115(100%)</td>
</tr>
</tbody>
</table>

The findings for BrE and AmE represent a typical case of grammaticalisation, suggestive of the present perfect’s move away from its historical origins. The process
can be seen as consistent with the decreased resultative use, as transitivity is associated with the affectedness of the object (Hopper & Thompson, 1980), and an affected object is likely to constitute a target-state result. In both varieties there is an apparent weakening of the transitivity effect. Range in BrE drops from 29 to 14 over the two and a half centuries. In AmE it drops from 38 in 1750-99 to 15 in 1850-99, and finally in the last fifty-year period transitivity is no longer selected as significant. These changes correspond with the growth in the percentage of non-transitive present perfects over time, from 18% to 37% in BrE and from 20% to 46% in AmE, both increases being statistically significant (BrE $\chi^2 = 9.29, p < 0.01$; AmE $\chi^2 = 10.28, p < 0.01$). A closer examination of individual verbs reveals that the increase of non-transitive present perfects in AmE is partially owed to a stronger link between the copula be and the present perfect, which also contributes to the loss of the situation type constraint observed in the previous section. In AmE non-progressives have been accounts for less than 10% of all present perfects in the 18th and 19th centuries, but as high as 21.4% in the 20th century, as can be seen from Table 6.7. The finding that the transitivity constraint lingers in BrE but disappears in AmE is corroborated by the results for the non-transitive simple pasts, which slightly increase in percentage in BrE (43% $\rightarrow$ 51%, $\chi^2 = 5.58, p < 0.05$) but lose ground to transitive simple pasts in AmE (55% $\rightarrow$ 47%, $\chi^2 = 4.19, p < 0.05$).

Table 6.6 also shows that transitivity does not play a prominent role in AusE at any period, suggesting that its use of the present perfect does not entirely follow British or American norms. If we consider the frequency findings in Table 6.7, we see that non-transitive present perfects are about as common as transitive ones in AusE (45% of non-transitives in 1850-99 and 43% in 1950-99), with no significant change over time. This finding may have to do with influence of Irish English on earlier AusE.

---

7 For the top-five most frequent verbs in present perfect form, raw frequency and percentage out of all present perfects in the same variety/period are listed below:

<table>
<thead>
<tr>
<th></th>
<th>BrE</th>
<th>AusE</th>
<th>AmE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1750-99:</td>
<td>be (11/8%), have (9/7%), do (7/5%), hear (7/5%), give (6/4%), tell (6/4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1850-99:</td>
<td>do (14/10%), be (12/8%), come (5/4%), make (5/4%), see (5/4%)</td>
<td>be (11/12%), go (7/8%), see (6/7%), do (4/4%), hear (4/4%)</td>
<td>be (8/9.5%), do (4/5%), pass (3/4%), see (3/4%), teach (3/4%)</td>
</tr>
<tr>
<td>1950-99:</td>
<td>be (10/11%), see (9/10%), have (5/5%), take (5/5%), arrive (3/3%)</td>
<td>be (11/12%), go (7/8%), see (6/7%), do (4/4%), hear (4/4%)</td>
<td>come (12/10%), be (11/10%), see (8/7%), have (6/5%), become (4/3%), forget (4/3%)</td>
</tr>
<tr>
<td>1850-99:</td>
<td>be (29/14%), do (17/8%), see (11/5%), go (10/5%), come (7/3%), have (7/3%), hear (7/3%)</td>
<td>be (11/12%), go (7/8%), see (6/7%), do (4/4%), hear (4/4%)</td>
<td>come (12/10%), be (11/10%), see (8/7%), have (6/5%), become (4/3%), forget (4/3%)</td>
</tr>
<tr>
<td>1950-99:</td>
<td>be (15/21%), hear (5/7%), come (4/6%), have (4/6%), see (4/6%)</td>
<td>be (11/12%), go (7/8%), see (6/7%), do (4/4%), hear (4/4%)</td>
<td>be (8/9.5%), do (4/5%), pass (3/4%), see (3/4%), teach (3/4%)</td>
</tr>
</tbody>
</table>
Historically there have been strong ties between the two countries, as a sizable proportion of Australia’s population during colonial times was Irish settlers and convicts who were bilingual or monolingual speakers of Irish English. Roughly 20% present-day Australians are estimated to be of Irish ancestry (McGregor, 1980). This demographic fact is likely to have linguistic consequences. As argued by Trudgill (1986, pp. 139-141), evidence for the role of Irish English in the formation of AusE, albeit small in scale perhaps, is rather robust, and can be seen at least at the lexical-grammatical level in the presence of the non-standard second person plural pronoun youse, the adverbial but (as in I don’t want it but), use of negative epistemic mustn’t (as in He mustn’t have seen me, as opposed to the standard English variant He can’t have seen me), and at the phonological level in the absence of glottaling of word-final /p/, /t/ and /k/.

With regard to selection of the present perfect over the simple past, quantitative evidence for earlier Irish English is available in Davydova (2008), which is based on the Hamburg Corpus of Irish Emigrant Letters, a collection of personal correspondence written by Irish emigrants to Australia and America in the 18th-19th century. Interestingly, Davydova’s results for transitivity bear resemblance to mine: transitive verbs in her data tend to be in simple past form while non-transitive verbs favour the present perfect, providing support for an Irish-influence explanation.

As for the question of why there is an unusually strong link between the present perfect and non-transitive verbs in earlier Irish English, one plausible reason is competition with the well-known ‘medial-object perfect’ characteristic of this variety (as in I have my dinner eaten). The construction has the same form as the source construction of the present-day English perfect and also expresses possessive-resultative meaning in effect. However, the medial-object perfect should not be seen as simply a direct retention from an Old English form. According to Brinton (1994), the input for the Irish medial-object perfect is the standard English stative resultative (as in I have (got) the work finished). The construction emerged well after the have + past participle + object word order was established for the standard perfect, and only gained in frequency and regularity in mainland England towards the late 19th century. Based on a diachronic evaluation of corpus data, Pietsch (2009) showed that the construction was also present in earlier dialects of English spoken in Ireland. It went through a process of

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8 See Ramson (1966) and Turner (1966) for skeptical views towards Irish influence on the formation of AusE.
grammaticalisation from the late 19th century onwards, which was triggered by the presence of a functionally and formally related construction in Irish (tá mo dhinneár ite agam, literally ‘is my dinner eaten at-me’). The expansion of the transitive medial-object perfect into more linguistic contexts may have contributed to a strengthened association between non-transitive verbs and the standard perfect in Irish English. Given what is already known of the demographic makeup of 19th-century Australia, it is reasonable to hypothesise that this feature has found its way into earlier AusE through dialect contact and has stabilised in this variety.

6.4.5 Negation

We now consider the results of the variable rule analysis for negation, shown in Table 6.8 and the underlying frequency findings, shown in Table 6.9. As before, clauses coded as negative contain verbal or nonverbal negators (e.g., not, nothing, nobody, never, hardly, scarcely).

Table 6.8 Variable rule analysis of the contribution of negation to the choice of the present perfect over the simple past

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BrE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>[.50]</td>
<td>[.50]</td>
<td>[.49]</td>
</tr>
<tr>
<td>Negative</td>
<td>[.45]</td>
<td>[.50]</td>
<td>[.62]</td>
</tr>
<tr>
<td><strong>AusE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>[.50]</td>
<td></td>
<td>[.49]</td>
</tr>
<tr>
<td>Negative</td>
<td>[.53]</td>
<td></td>
<td>[.63]</td>
</tr>
<tr>
<td><strong>AmE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>[.52]</td>
<td>[.50]</td>
<td>.47</td>
</tr>
<tr>
<td>Negative</td>
<td>[.33]</td>
<td>[.52]</td>
<td>.77</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>
Table 6.9  Frequencies of the present perfect and the simple past by negation (vertical percentages)

(a)  BrE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Positive</td>
<td>126(93%)</td>
<td>357(91%)</td>
<td>126(88%)</td>
</tr>
<tr>
<td>Negative</td>
<td>10(7%)</td>
<td>35(9%)</td>
<td>17(12%)</td>
</tr>
<tr>
<td>Total</td>
<td>136 (100%)</td>
<td>392 (100%)</td>
<td>143 (100%)</td>
</tr>
</tbody>
</table>

(b)  AusE

<table>
<thead>
<tr>
<th></th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pres perf</td>
<td>Past</td>
</tr>
<tr>
<td>Positive</td>
<td>181(87%)</td>
<td>428(89%)</td>
</tr>
<tr>
<td>Negative</td>
<td>26(13%)</td>
<td>53(11%)</td>
</tr>
<tr>
<td>Total</td>
<td>207(100%)</td>
<td>481(100%)</td>
</tr>
</tbody>
</table>

(c)  AmE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Positive</td>
<td>80(95%)</td>
<td>180(90%)</td>
<td>102(89%)</td>
</tr>
<tr>
<td>Negative</td>
<td>4(5%)</td>
<td>19(10%)</td>
<td>13(11%)</td>
</tr>
<tr>
<td>Total</td>
<td>84(100%)</td>
<td>199(100%)</td>
<td>115(100%)</td>
</tr>
</tbody>
</table>

Unlike the previous three factors examined, negation generally does not affect the choice of the present perfect over the simple past. A high degree of homogeneity can be observed across varieties. In 1750-99 BrE and AmE shares the tendency for the present perfect, in comparison with the simple past, to occur slightly less frequently with negatives (BrE 7% vs 9%; AmE 5% vs 10%). By contrast, in the 1950-99 data we find a
higher probability for negation to co-occur with the present perfect than with the simple past (BrE 15% vs 9%; AmE 24% vs 8%). A comparison of percentages of negative present perfects out of all present perfects at the two time periods shows a statistically significant increase in AmE ($\chi^2 = 10.76, p < 0.01$) but not in BrE ($\chi^2 = 2.62, p < 0.05$). These changes are manifested in Table 6.8 as the reversal of the constraint hierarchy in the two varieties, as well as the selection of negation as a significant factor in 20th century AmE. Changes in AusE are in line with those in BrE and AmE, as negation becomes relatively less frequent with the simple past (11% $\rightarrow$ 9%), but remains robust with the present perfect (13% $\rightarrow$ 13%).

It should be noted that the strengthened association between present perfects and negation in BrE and AmE is not simply a by-product of the increased present-perfect friendliness of never, which is coded not only as a negator but also as a temporal quantifier, as discussed in Section 6.4.2. In my data the percentage of negators other than never also undergoes a notable rise with the present perfect, from 6.6% to 12.8% in BrE and from 3.6% to 15.7% in AmE. Thus the existing evidence points to a general shift of the present perfect towards negative polarity. Crucially, what this reveals is again a shift towards more continuative uses, or the expression of an up-to-now time span, since negative perfects are continuative by default, and the negation of a situation is normally understood to continue to the present (see discussion on negative perfects in Sections 2.1.1.1 and 5.3.2).

### 6.4.6 Interrogation

Finally we consider the role played by interrogation. As suggested before, present perfect interrogatives favour the experiential reading as they direct the communicative attention to the occurrence or non-occurrence of the situation within an up-to-now time span. The contrast between the present perfect and the simple past in the interrogative form is illustrated by the following examples:

(5) a. Have you talked with him?  
    b. Did you talk with him?

(6) a. You have talked with him, haven’t you?
(5a) and (6a) question the possible occurrence of the situation within a contextually determined time span extending from the past and ending at the present moment. By contrast, the time of the situation is constrained to the past in (5b) and (6b). Also consider example (7):

(7) A: I saw Paul at the last annual meeting. Did you talk with him?

   B: No I didn’t. But I have talked with him a few times since then.

Here Speaker A’s question is concerned with the occurrence of the situation during the time of the last annual meeting, which is disconnected from now. Had the present perfect been used in the question, Speaker B would have given a positive answer, since what is of interest would be whether the situation occurred at any time before now, not just at one time. The functional difference between the present perfect and the simple past qualifies as one between ‘type-focusing’ and ‘token-focusing’ constructions (Dahl & Hedin, 2004).

Hypothetically, the present perfect’s continued grammaticalisation away from its resultative roots will manifest itself as a shift towards interrogative, experiential uses. Interrogatives were coded depending on whether they are formally marked by subject-auxiliary inversion and/or initial positioning of wh-elements (see Quirk et al., 1985, p. 803). The findings are presented in Tables 6.10 and 6.11.

**Table 6.10**  Variable rule analysis of the contribution of interrogation to the choice of the present perfect over the simple past

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BrE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrogative</td>
<td>[.74]</td>
<td>[.61]</td>
<td>[.48]</td>
</tr>
<tr>
<td>Non-interrogative</td>
<td>[.50]</td>
<td>[.49]</td>
<td>[.50]</td>
</tr>
</tbody>
</table>
### Table 6.11 Frequencies of the present perfect and the simple past by interrogation (vertical percentages)

(a) BrE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
<td>Past</td>
</tr>
<tr>
<td>Interrogative</td>
<td>5(4%)</td>
<td>5(1%)</td>
<td>15(10%)</td>
</tr>
<tr>
<td>Non-interrogative</td>
<td>131(96%)</td>
<td>387(99%)</td>
<td>128(90%)</td>
</tr>
<tr>
<td>Total</td>
<td>136(100%)</td>
<td>392(100%)</td>
<td>143(100%)</td>
</tr>
</tbody>
</table>

(b) AusE

<table>
<thead>
<tr>
<th></th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Interrogative</td>
<td>16(8%)</td>
<td>34(7%)</td>
</tr>
<tr>
<td>Non-interrogative</td>
<td>191(92%)</td>
<td>447(93%)</td>
</tr>
<tr>
<td>Total</td>
<td>207(100%)</td>
<td>481(100%)</td>
</tr>
</tbody>
</table>

(c) AmE

<table>
<thead>
<tr>
<th></th>
<th>1750-99</th>
<th>1850-99</th>
<th>1950-99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pres perf</td>
<td>Past</td>
<td>Pres perf</td>
<td>Past</td>
</tr>
<tr>
<td>Interrogative</td>
<td>2(2%)</td>
<td>4(2%)</td>
<td>15(13%)</td>
</tr>
<tr>
<td>Non-interrogative</td>
<td>82(98%)</td>
<td>195(98%)</td>
<td>100(87%)</td>
</tr>
</tbody>
</table>
The results of the variable rule analysis in Table 6.10 bear similarities to those for negation. Interrogatives do not favour the selection of the present perfect over the simple past at the beginning but develop a significant effect in 19th- and 20th-century AmE (0.77 and 0.70), confirming our hypothesis. The results in Table 6.11 suggest a general increase in the number of interrogatives relative to non-interrogatives with both verb forms. This is likely a product of colloquialisation: fictional direct speech tends to become more speech-like over time, embracing a higher overall frequency of interrogatives which is typical of actual conversations. However, if we contrast the two verb forms in terms of their percentage increases of interrogatives over time, we see that the present perfect far outpaces the simple past in the AusE and AmE data (AusE present perfect 8% → 15%, simple past 7% → 10%; AmE present perfect 2% → 13%, simple past 2% → 6%), but, for reasons not clear to me, not in the BrE data (present perfect 4% → 6%, simple past 1% → 7%).

The above diachronic tendencies can be considered in relation to a synchronic pattern described in a recent report by Elsness (2013). Using an elicitation test similar to the original 1997 version, he examined choice of the present perfect and the simple past by speakers of three antipodean English varieties, namely, Australian, New Zealand and South African, and compared the results with those of Elsness (1997) for BrE and AmE. Among the findings is a striking similarity across the five varieties, namely, the preference for the present perfect to the simple past is particularly strong in yes-no interrogatives such as Have you seen him? and tag questions such as You have seen him, haven’t you?. The reason for this finding, as I see it, lies in the well-developed function of the present perfect as an implicit expression of the up-to-now time span in Contemporary English.

6.5 Summary

In this chapter I have investigated developments in the use of the present perfect, along with the past-referring simple past, since the Late Modern English period. The investigation is based on around 320,000 words of earlier fiction, which is made up of BrE and AmE texts taken from A Representative Corpus of Historical English Registers,
19\textsuperscript{th}-century AusE texts from a Corpus of Oz Early English, and 20\textsuperscript{th}-century AusE texts from varied literary sources. There are three main reasons for singling out fiction. First, fiction contains representations of earlier speech, which is generally considered to be more innovative than writing and thereby provides a good testing ground for hypotheses of language change. Second, direct speech in fiction features frequent alternations between the present perfect and the simple past, offering opportunities for observing significant frequency rise-and-falls. Thirdly, unlike other speech-related genres such as drama or legal proceedings, fiction texts for all three varieties are widely available.

The selected texts concentrate in three fifty-year intervals, namely, 1750-99, 1850-99 and 1950-99. For BrE and AmE the time frame spans two and a half centuries, and for AusE one and a half century. Notably, these times roughly coincide with the time periods during which English in America and Australia advanced from being oriented essentially towards British norms to becoming full-fledged varieties defined by local standards, or as Schneider (2007) describes, from a phase of ‘exonormative stabilisation’ to one of linguistic independence. This allows us to chart the historical development of postcolonial Englishes and to pin down their commonalities with and divergences from the British parent. Specifically, the investigation has focused on three issues: (a) overall textual frequencies of the present perfect and the simple past; (b) the present perfect’s interpretation in discourse; (c) influence of linguistic factors on the selection of the present perfect over the simple past. With each issue, attention has mainly been given to quantitative patterns of statistical significance, as grammaticalisation is often reflected in changes in the frequency with which tokens of a construction occurs in discourse (Hopper & Traugott, 1993/2003; Mair, 2004), and in the type of linguistic subsystems or collocations the construction may enter into (Diewald, 2002; Torres Cacoullos & Walker, 2011).

In terms of overall textual frequency, my investigation of fictional direct speech confirms Elsness’s (1997) finding based on multi-genre historical data, that the present perfect has been losing ground to the simple past in both BrE and AmE since the Late Modern English period. In my data their present perfect vs simple past ratios start respectively at 0.35 and 0.42 in 1750-99 and experience significant declines, ending at 0.21 and 0.12 in 1950-99. That the decline is initiated in AmE, where it is also more dramatic, suggests that the substitution of the present perfect by the simple past qualifies as a colonial innovation and an Americanism. Moreover, this process appears
to be fairly recent in the history of English, having gained momentum only towards the 20th century. The frequency findings for AusE buck the general trend. Its present perfect vs simple past ratio stabilises at no less than 0.40, making it similar to 1850-99 BrE and AmE. For a more conclusive remark to be made on the frequency of the present perfect in earlier AusE, further historical research on other genres such as literary prose and newspaper writing is needed to explore whether signs of conservatism permeate the dialect as a whole.

Functional explanations for the frequency findings have been explored by analysing the present perfect’s interpretation as influenced by the linguistic context. By and large, the analysis provides overwhelming evidence that the present perfect in AmE has been shifting away from its resultative use and towards its non-resultative uses. This functional shift is underpinned by a significantly stronger tendency for the present perfect, in comparison with the simple past, to appear in negative and interrogative clauses and be modified by the temporal adverbials always/never/ever, as well as to co-occur freely with various situation types, and in both transitive and non-transitive structures. The evolutionary paths of the present perfect in BrE and AusE show some slight differences. Firstly, these varieties only experience mild increases in the proportion of the continuative perfect, while that of the resultative remains stable. Secondly, the situation type constraint in these varieties has strengthened, rather than relaxed, over time. AusE also occasionally distinguishes itself from BrE and AmE, notably by a higher probability for the present perfect to be non-transitive, for which a plausible explanation has been suggested to be historical input from Irish English.

Nevertheless, on the whole, the use of the present perfect exhibits strong similarities across varieties, as have been identified on several measures reported by the variable rule analysis, including the type of factors selected as having significant influence on the choice of the present perfect over the simple past, the effect magnitude of the influence, the constraint hierarchies within these factors, at individual time periods. Cross-varietal similarities have also been seen in the general direction along which varieties have evolved over time: in the tendency for the present perfect, in comparison with the simple past, to be increasingly frequent with always/never/ever and other temporal specifiers, and with negators of various kinds.

Viewed together, these quantitative patterns indicate that there have been changes in the use of present perfect from the Late Modern English period to the present day.
This is a time commonly assumed to be well predated by the have + past participle’s grammaticalisation from a stative resultative to an anterior. By the 18th century, the present perfect had already fully developed its modern semantics – the meaning that a past situation is viewed as relevant to a present state in light of the ongoing discourse. My investigation shows that there has, nevertheless, been by a subtle shift in the nature of current relevance: the present state is less often inferred as the present persistence of the target-state result of a past situation, and more often as the present continuation of a past situation (or its habitual state), or as negative or experiential states (in the case of negatives and interrogatives). Crucially, the construction has embraced a stronger association with the notion of an up-to-now time span, and current relevance can be seen as an increasingly strong temporal connection with the present, devoid of any causal meanings. The grammaticalisation of the present perfect is therefore shaped by functional specialisation.

The decline of the resultative use is one obvious contributing factor to the substitution of the present perfect by the simple past. One trigger of this process, as suggested by Elsness (1997, 2009b), is the leveling of the formal difference between the two constructions, which results from such interactive forces as formal simplification, auxiliary contraction and the confusion of the simple past and the past participle (Elsness, 1997, 2009b). While this account is of course plausible, it does not predict the present perfect’s increased functional specialisation. A more revealing explanation, I believe, can be posited by combining Elsness’s account with the cognitive perspective outlined in my discussion of the neutralisation of the present perfect/simple past contrast in Section 4.2.1. Importantly, it can be argued that the decline of the resultative present perfect is motivated by a relevance-seeking inferential mechanism. In communicative settings where a significant amount of contextual information is shared, the present persistence of the target-state result is often readily apparent to interlocutors, and explicit assertion of such persistence using the present perfect would almost seem redundant. Since the two verb forms can sometimes be used to achieve the same set of cognitive effects, speakers’ choice of verb form is prone to variation in resultative contexts. When reinforced by the leveling of the formal difference between the two verb forms, variation leads to language change in the long run. On the other hand, only the

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9 Note that this need not be taken as direct evidence for the extended-now account for the perfect’s semantics, as the up-to-now time span is only one functional realisation of current relevance.
present perfect, but not the simple past, is able to evoke the notion of up-to-now time span; what the simple past implies is the rather the opposite – the location of the situation within an exclusive-past temporal domain. This clear functional contrast between the two verb forms is arguably the main reason why substitution by the simple past does not extend at all to the up-to-now use. Furthermore, in negative and interrogative present perfects auxiliary contraction (have > ’ve, has > ’s) is much less common than in positives.\textsuperscript{10} A relatively stronger formal difference between the present perfect and the simple past is another explanation for the robustness of the present perfect in negative and interrogative forms.

\textsuperscript{10} Auxiliary contraction is not an option in yes-no interrogatives, but may occur in wh-interrogatives (e.g., What’ve you done?).
Chapter 7  Conclusion

This thesis began with two overarching research questions: (a) how can we account for the semantics and pragmatics of the Modern English present perfect, and (b) how can the proposed account explain its variation across registers, space and time, in theoretically insightful ways? The goal of this final chapter is to conclude the thesis by summarising the discussions in the preceding chapters in light of these research questions.

I first present a synopsis of the key arguments and findings of this study and consider their significance within a broader research context (Section 7.1). I then discuss some possibilities for future work (Section 7.2). For a more detailed overview of the thesis, the reader is referred to summary sections given at the end of individual chapters.

7.1 Synopsis

Regarding the semantics of the Modern English present perfect, I have advocated a monosemous perfect-state account developed from the Reichenbachian theory of tenses (Reichenbach, 1947/1966). On this account, the construction encodes the meaning that the time of the situation is preceded by the reference time, which in turn coincides with the deictic time. Moreover, the construction requires a state to hold at the reference time. As argued by Nishiyama and Koenig (2010), this state is a semantically free state. I have shown that the perfect-state account outlined above has the advantage of being consistent with our intuition that the present perfect expresses a past situation connected to the present, but does not specify the way in which the connection is made. I have also removed potential objections to the perfect-state account, showing that the availability of the (non-present) perfect’s eventive interpretation is a product of aspectual coercion triggered by other linguistic elements and/or world knowledge. In addition, I have demonstrated the inadequacy of existing indefinite-past and extended-now accounts (e.g., Klein, 1992; Portner, 2003; Pancheva, 2003; Rothstein, 2008) by pinpointing their difficulties in dealing with actual data. None of these accounts accurately extrapolate the present perfect’s co-occurrence with temporal adverbials, in particular, with
occasional instances of +THEN adverbials such as yesterday, two days ago and long ago.

Importantly, I have proposed a pragmatic principle responsible for value assignment for the perfect state. For a present perfect utterance to be fully interpreted, it is necessary that the audience correctly infer the value of the perfect state expressed by the communicator in a given context. This inferential process is governed by the search for optimal relevance, which can be defined as a balance between cognitive effects and processing efforts, as suggested in relevance theory (Sperber & Wilson, 1986/1995). The value of the perfect state is a proposition that is inferentially linked to the situation described by the present perfect and that stands in an optimally relevant relation with the discourse topic. Out of a range of inferentially possible propositions, the perfect state for the communicator is the most relevant one compatible with his/her abilities and preferences; for the audience, it is the first interpretation that satisfies his/her expectations of relevance. I have shown that the above account reliably predicts the outcome of the present perfect’s interpretation and is therefore preferable over Nishiyama and Koenig’s (2010) proposal based on Levinson’s I-principle (Levinson, 2000). The account also meshes closely with well-known ‘present perfect puzzles’. Occasional instances of +THEN adverbials with the construction can be explained by strong relevance overriding the general requirement for a situation to be anchored by denotatively connected temporal expressions. The infelicity of present perfects with deceased subject referents follows from the lack of an optimally relevant present state inference.

One of the strengths of adopting a discourse-pragmatic approach is that it allows us to tease apart the respective roles of linguistic decoding and context-induced inferencing in the present perfect’s interpretation. I have presented a thorough discussion on the interplay between the three main perfect interpretations identified in the literature – continuative, resultative and experiential – and linguistic features such as temporal adverbials, situation type, negation and interrogation. Based on careful analysis of naturally occurring data, I have shown that although these clausal elements have close affinity with particular interpretations, contextual assumptions are always needed in the disambiguation process to derive the corresponding perfect state inferences. These inferences are pragmatically inferred propositions, or explicatures or implicatures in
relevance-theoretic terms, depending on whether they qualify as developments of the utterance’s logical form.

The present study has also made a contribution towards our understanding of the present perfect’s variation in registers, space and time. Through conducting automatic and manual analysis of multi-genre corpora, I have explored the construction’s distribution in Contemporary BrE, AmE and AusE. By and large, the findings are suggestive of a tendency for the present perfect to be most popular in BrE, followed by AusE, and then by AmE. However, the three varieties are highly similar in terms of how their present perfect frequencies are sensitive to register variation. Specifically, the construction is far more common in the language of the mass media, parliamentary debates and letters, than in fiction, face-to-face conversations and informative registers such as demonstrations, class lessons and administrative writing. This finding is easily accounted for by the proposed analysis: uses of the present perfect are predicted by the expression of past situations viewed as sufficiently relevant to present-oriented discourse topics.

Apart from overall frequency differences, register variation also manifests itself as differences in the distribution of the three perfect interpretations, which can largely be traced to the construction’s co-occurrence with clausal elements. A detailed inspection of randomly sampled tokens from face-to-face conversations, news reports and academic writing reveals broad cross-varietal similarities in terms of how perfect interpretations are distributed relative to one another across registers, suggesting a functional core shared by varieties. Nevertheless, evidence for dialectal variation at the register level has sometimes been spotted. For example, there is a tendency for the present perfect in AusE academic writing to extend to more atelic predicates, in particular, to the copular verb be, for expressing an abstract present state in which previous actions and practices have the widest possible range of relevance to the present research context. As for the purportedly Australian ‘vivid narrative’ present perfect (Ritz, 2009; Ritz & Engel, 2008), the data examined do not provide support for its regional uniqueness, but are rather indicative of its highly limited distribution, as well as its similarity to other present perfect uses which also exploit the vividness effect and which are not specific to any variety of English.

Another important finding of the present study concerns variation in time. Using a multi-dialectal historical fiction corpus, I have explored the present perfect’s
development in relation to that of the simple past since the Late Modern English period, a time during which evidence for functional change has not been previously reported. The quantitative patterns uncovered attest to gradual replacement by the simple past. Crucially, the process is contoured by a change in the nature of the perfect state: the semantically restricted resultative inference has given way to pragmatically implicated inferences, and to temporal continuity devoid of causal meanings. The simple past takes over the present perfect’s resultative use by virtue of its capacity to trigger the same resultative inference when there is sufficient contextual support, given the relevance-seeking nature of human cognition. The three varieties have moved along the same general direction, with AmE leading the way. The finding that AmE shows the most substantial decrease in terms of both overall present perfect frequency and the proportion of resultatives tallies nicely with the finding for contemporary conversations, that AmE has the lowest overall present perfect frequency and the smallest proportion of resultatives.

The diachronic changes outlined above are consistent with a cross-linguistically attested grammaticalisation process, through which have + past participle moves from a resultative construction focusing on the present state, to a marker of current relevance focusing on the past situation (Bybee et al., 1994). The process is motivated by what Hopper and Traugott (1993/2003) refer to as the ‘conventionalisation of context-induced inferences’: over time, context-induced, relevant present state inferences turn into a conventionalised, linguistically encoded meaning. While some other Indo-European languages have seen the further loss of the present state inference (or the erosion of current relevance), with their ‘present perfects’ ending up as past perfectives, my English data does not furnish evidence along this line. Instead, the English present perfect has been shown to be increasingly associated with the notion of an up-to-now time span, thereby assuming a stronger temporal character.

7.2 Future research

This study has left several gaps unexplored and therefore raises questions for future research. First, my central focus has only been on the present perfect, given the scope of the research. The semantics and pragmatics of non-present perfects, including past, modal, and non-finite perfects, have not been examined in detail. Although a common
Semantic structure has been proposed for these constructions and great similarities are certainly to be expected, it remains to be seen how the proposed perfect meaning interacts with other linguistic parameters such as modality and non-finiteness. There is also a need for more empirical research on these constructions based on quantitative, authentic data. Recently, corpus-based studies by Bowie and Aarts (2012) and Yao and Collins (2013) have uncovered significant declines in the frequency of non-present percents in AmE and BrE during the second half of the twentieth century. This finding raises the possibility of underlying functional shifts and frequency changes in the longer term, which merits attention by future research.

Secondly, an obvious supplement to the work done in this study would be a diachronic investigation of the Modern English present perfect in multiple registers. Due to the unavailability of suitable data, the study has only looked at direct speech in earlier fiction. It is worthwhile examining whether the patterns of grammaticalisation observed are also evident in other registers such as news reports and literary and academic prose, since registers often differ in terms of the direction and rate of linguistic change (cf. Biber & Finegan, 2001). Another question to be explored on the empirical side is the historical development of the hot news perfect. According to Schwenter (1994), the hot news perfect marks the last stage of grammaticalisation along the ‘anterior > perfective’ path, inasmuch as its current relevance is highly generalised and is most prone to erosion. Furthermore, the hot news perfect most approximates the simple past in its ability to introduce a new topic into the discourse. Its development can be further illuminated by exploring more reliable coding schemes tailored to specific text types, such as coding for the form of the first main verb in a news report.

Finally, a promising area for future research appears to be the application of relevance theory, or more generally, the inferential account of communication to the analysis of tense/aspect markers. This thesis has given an illustration of the role played by the relevance-seeking inferential mechanism in the interpretation of the English present perfect. It remains to be seen how this mechanism accounts for other aspects of temporal and aspectual interpretation, in English as well as in other languages. Cross-linguistic comparisons of present percents in typologically related languages can also be made, with a view of articulating their conventionalised current relevance (or non-relevance). The next challenge for tense/aspect theories would be to develop a
pragmatic research program which combines formal elegance and descriptive and explanatory accuracy.
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Appendix I Numerical information

Table 1. Word counts for the ICE corpora examined*

<table>
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<tr>
<th>Text category</th>
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<th>ICE-AUS</th>
<th>ICE-US</th>
</tr>
</thead>
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<tr>
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<td>185,888</td>
<td></td>
</tr>
<tr>
<td>Telephone calls</td>
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<td>20,600</td>
<td></td>
</tr>
<tr>
<td>S1B Broadcast discussions</td>
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<td></td>
</tr>
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<td>19,846</td>
<td></td>
</tr>
<tr>
<td>Business transactions</td>
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<td>22,607</td>
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<tr>
<td>Class lessons</td>
<td>41,363</td>
<td>41,329</td>
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</tr>
<tr>
<td>Legal cross-examinations</td>
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<td>20,656</td>
<td></td>
</tr>
<tr>
<td>Parliamentary debates</td>
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<td>17,096</td>
<td></td>
</tr>
<tr>
<td>S2A Demonstrations</td>
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<td>42,773</td>
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<tr>
<td>Unscripted speeches</td>
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<td>Non-broadcast talks</td>
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<td>W1A Exam scripts</td>
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<td>Student essays</td>
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<td>W1B Business letters</td>
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<td>42,051</td>
<td>41,422</td>
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<tr>
<td>W2D Administrative writing</td>
<td>21,076</td>
<td>20,724</td>
<td>20,416</td>
</tr>
<tr>
<td>Skills/hobbies</td>
<td>21,219</td>
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<td>20,970</td>
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<td>W2E Press editorials</td>
<td>20,895</td>
<td>18,495</td>
<td>20,964</td>
</tr>
<tr>
<td>W2F Novels and short stories</td>
<td>44,550</td>
<td>41,540</td>
<td>42,796</td>
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<td>1,046,634</td>
<td>1,041,101</td>
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* In this and subsequent tables, word counts are generated by the ‘Wordlist’ function of WordSmith Tools 4.0 (http://www.lexically.net/wordsmith/).

Table 2. Frequencies of major tenses in the ICE corpora (in pmw)

(a) ICE-GB

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<th>Simple present</th>
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<td>98,963</td>
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<td>Telephone calls</td>
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<td>31,737</td>
<td>92,282</td>
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<td>S1B Broadcast discussions</td>
<td>6,146</td>
<td>21,214</td>
<td>32,685</td>
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<td>Broadcast interviews</td>
<td>5,699</td>
<td>45,002</td>
<td>161,465</td>
</tr>
<tr>
<td>Business transactions</td>
<td>5,676</td>
<td>14,018</td>
<td>92,946</td>
</tr>
<tr>
<td>Class lessons</td>
<td>3,433</td>
<td>13,805</td>
<td>98,276</td>
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<tr>
<td>Legal cross-examinations</td>
<td>3,035</td>
<td>51,968</td>
<td>54,765</td>
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<tr>
<td>Parliamentary debates</td>
<td>9,027</td>
<td>11,532</td>
<td>56,763</td>
</tr>
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<td>S2A Demonstrations</td>
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<td>9,319</td>
<td>80,305</td>
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<td>Text category</td>
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<td>Simple past</td>
<td>Simple present</td>
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<td>-----------------</td>
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<td>----------------</td>
</tr>
<tr>
<td><strong>S1A</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Direct conversations</td>
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</tr>
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<td>Broadcast discussions</td>
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<td>Demonstrations</td>
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<td>Legal presentations</td>
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<td>Spontaneous commentaries</td>
<td>5,681</td>
<td>15.220</td>
<td>73.925</td>
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<tr>
<td>Unscripted speeches</td>
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<td>19.977</td>
<td>73.191</td>
</tr>
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<td><strong>S2B</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadcast news</td>
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<td>13.892</td>
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<td>Broadcast talks</td>
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<td>Non-broadcast talks</td>
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<td><strong>W1A</strong></td>
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<td></td>
<td></td>
</tr>
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<td>Exam scripts</td>
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<td>45.834</td>
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<td>Student essays</td>
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<td>42.348</td>
</tr>
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<td>47.002</td>
</tr>
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<td><strong>W2B</strong></td>
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<td>Natural sciences</td>
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<td>43.069</td>
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<td><strong>W2C</strong></td>
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<td>Press news reports</td>
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<td>Skills/hobbies</td>
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<td><strong>W2E</strong></td>
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<td>Press editorials</td>
<td>6,650</td>
<td>18.600</td>
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Table 3. Frequencies of the present perfect by situation type in the Contemporary English data for the functional analysis

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<th>News reports</th>
<th>Academic writing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BrE</td>
<td>AusE</td>
<td>AmE</td>
</tr>
<tr>
<td>Telic with target-state result</td>
<td>55</td>
<td>48</td>
<td>40</td>
</tr>
<tr>
<td>Speech act</td>
<td>6</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Cognitive process</td>
<td>23</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Telic without target-state result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech act</td>
<td>23</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Cognitive process</td>
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</tr>
<tr>
<td>Other</td>
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<td>30</td>
<td>17</td>
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<td>Ambiguous</td>
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<td>Total</td>
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<td>124</td>
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Table 4. Frequencies of temporal specifiers for the present perfect in the Contemporary English data for the functional analysis

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<td>AusE</td>
<td>AmE</td>
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<tr>
<td>Precisely anchored</td>
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<td></td>
</tr>
<tr>
<td>+THEN</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>±THEN</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>–THEN</td>
<td>9</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Vaguely anchored</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>+THEN</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>±THEN</td>
<td>0</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>–THEN</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unanchored</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>always/never/ever</td>
<td>13</td>
<td>16</td>
<td>18</td>
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<tr>
<td>Frequency</td>
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Table 5. Raw frequencies of temporal specifiers for the present perfect and the simple past in the historical data*

(a) BrE

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<th>1850-99</th>
<th>1950-99</th>
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<td>Past</td>
<td>Pres perf</td>
</tr>
<tr>
<td>Precisely anchored</td>
<td>+THEN</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>±THEN</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>−THEN</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Vaguely anchored</td>
<td>+THEN</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>±THEN</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>−THEN</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Unanchored</td>
<td>always/never/every</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Frequency</td>
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<td>2</td>
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* ‘Total’ frequencies are calculated by adding up the total number of temporal specifiers in each column. These are not necessarily the same as the number of temporally specified present perfects or simple pasts, since a verb form may co-occur with more than one temporal specifier.
### Appendix II  Specification of 20th-century Australian fiction texts examined

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**Total**: 43,974