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Aspect and temporal ordering

A constrastive analysis of Dutch and English

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When you say it's gonna happen now,
well, when exactly do you mean?

The Smiths, How soon is now? (1984)

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Life is lived forwards, but understood backwards
Kierkegaard

There have been moments during the writing of this dissertation when I was convinced that I was not going to thank anyone but myself for the completion of this thesis. However, now that the moment has finally arrived, I realize how unfair this would be.

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1 Aspect and temporal ordering in Dutch and English

1.1. Introduction

This study deals with the question what enables readers and hearers of English and Dutch discourse to arrive at an adequate understanding of the temporal ordering of the situations presented in the discourse. More specifically, the question to be answered is to what extent, and in what way, the information conveyed by the verb forms contributes to an understanding of interclausal temporal ordering. The focus of the investigation is on clauses containing simple past tense forms in English and in Dutch. However, as it is one of the claims of this thesis that these cases can only be explained by considering alternative means of expression available to the language user - in particular present perfect and past progressive forms - these other forms will be amply discussed in this thesis as well.

In this introductory chapter, I will first present the relevant Dutch and English data containing simple past forms (1.2). In the remainder of this chapter, I will introduce the basic notions to be used in this book (1.3), and present a quite detailed summary of the entire analysis proposed (1.4 and 1.5). The final section of this chapter (1.6) provides an overview of the structure of the book.

1.2. The problem

1.2.1. Interclausal temporal relations

A well-known, and much studied, distinction in the domain of interclausal temporal ordering is that between temporal sequence and temporal overlap in narrative sequences such as (1) and (2).

(1) John opened the door and walked to the bookcase.
(2) John opened the door. It was pitch dark in the room.

In (1), the situations are assumed to have happened in sequence and, moreover, in the order in which they are presented.[1] I will refer to this reading as an *iconic* one as the order of presentation mirrors the order in which these situations happened in the world. One of the interpretations of (2), which is not available for (1), is that the situation presented in the first sentence is temporally included in the situation presented in the second sentence: the room was dark both *before* and *after* John opened the door.

However, the linguistic information provided by (2) is also compatible with a reading in which the situation of the second sentence did not start to hold until the situation of the first sentence took place. Although such a reading might be difficult to construct for (2), it is the most plausible reading of the sequences in (3)a (Hinrichs 1986) and (3)b.

(3) a. John switched off the light. It was pitch dark in the room.
b. John opened the door of the fridge. The inside was brightly lit.

In addition to sequence, as in (1) and (3), and inclusion, as in (one of the readings of) (2), a situation should sometimes be understood to entirely *precede* rather than *follow* a situation presented in an immediately preceding sentence. In fact, if we assume that in (2) the second sentence presents an explanation for the fact that John opened the door - he did so in order to let some light in - then we may understand the situation of the room being dark to precede the situation of opening the door. Since Moens (1987), the English sequence given in (4) has been the standard example of this "reverse-order phenomenon".

(4) John fell. Max pushed him.

The sequence in (4) obviously allows for an iconic reading of the sort exemplified in (1). However, given a non-narrative context (Caenepeel & Moens 1994), and a marked intonation pattern, this sequence will receive an interpretation in which the situation of Max pushing John caused, and thus preceded, the situation of John falling (Lascarides 1992; Lascarides & Asher 1993; Wilson & Sperber 1993).

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[1] Until the work of Grice (1975), the sequence interpretation of (1) was sometimes attributed to (one of) the meaning(s) of *and* (Strawson 1952). Such an approach, however, would not be able to explain why (1) does not really differ from (i) *John opened the door. He walked to the bookcase*. as far as temporal interpretation is concerned. In this thesis, I do not distinguish between cases as (1) and (i), without claiming that there are no differences (see, in particular, Carston 1993; Wilson & Sperber 1993).

The sequences in (1)-(4), exemplifying cases of sequence, overlap and reverse-order, all contain syntactically independent main clauses. The relationship between a situation presented in a complement clause and the situation presented in the matrix clause is more constrained. Thus, the situation of being sick presented in the embedded clause of (5) may either overlap or precede the situation in the matrix clause, much like the situation of the room being dark in (2). However, the sentence in (5) does not allow for a reading, as in (1) and (3), in which the being sick is to be located *after* the telling.

(5) Mary said that she was sick.
(6) Mary said that John walked to the bookcase.

Likewise, both in (1) and in (6) the situation of walking to the bookcase cannot be simultaneous with the situation of opening the door and Mary speaking respectively, but whereas in (1) it necessarily *follows* the situation of entering the room, the only interpretation available for (6) is one in which this situation *precedes* the situation of John telling us about it presented in the matrix.

The general purpose of the investigation reported on in this thesis is to determine to what extent the temporal interpretation of sequences such as exemplified in (1)-(6) is determined by the syntactic and semantic information provided by these clauses, in particular by the verb forms they contain, and to what extent it has to be left to pragmatic inferencing. This question will be approached from a contrastive perspective: it is a more specific aim of this thesis to account for differences between English and Dutch in the domain of temporal ordering. In the following subsection, I will present the contrastive data to be explained.

1.2.2. Contrastive puzzles

When we consider the standard case of temporal sequence and temporal overlap in narrative discourse, as was exemplified for English in (1) and (2), then any immediately obvious difference between English and Dutch is lacking. The readings allowed for by English (1) and (2) are equally possible for their Dutch counterparts presented in (7) and (8). (The same is true of the Dutch equivalents of the sequences in (3).)

(7)	John	kwam	binnen	en	liep	naar	de	boekenkast.	
	John	came	inside	and	walked	to	the	bookcase	
(8)	John	deed	de deur	open.	Het	was	pikdonker	in	de kamer.
	John	did	the door	open	it	was	pitchdark	in	the room

This should not be taken to imply that there are no differences between English and Dutch when it comes to determining interclausal temporal ordering for clauses containing simple past tense forms. In particular, some Dutch sequences allow for an inclusion reading while their English counterparts do not. Thus, Dutch (9) may receive an overlap reading, albeit not according to all native speakers (see 5.5.3.3 for discussion), but English (10) does not.

(9) Toen John binnenkwam, schreef Mary een brief.
when John entered wrote Mary a letter
'When John entered, Mary wrote/was writing a letter.'

(10) When John entered, Mary wrote a letter.

The most readily available interpretation for English (10) is an inchoative one, in which Mary starts writing a letter after, and in response to, John's entrance; this reading is, in fact, allowed for by Dutch (9) as well. It should be noted that the difference is not restricted to *when*-structures as (9) and (10); the intuitions about the sequenced main clauses in (11) and (12) are the same.[2]

(11) John kwam binnen. Mary schreef een brief.
John entered Mary wrote a letter
'John entered. Mary wrote/was writing a letter.'

(12) John entered. Mary wrote a letter.

The difference between English and Dutch exemplified in (9)-(12) can equally be observed in complement clauses; examples (13) and (14) present literal Dutch translations of English (5) and (6), respectively.

(13) Mary zei dat John ziek was.
Mary said that John ill was
'Mary said that John was ill.'

(14) Mary zei dat John naar de boekenkast liep.
Mary said that John to the bookcase walked
'Mary said that John walked to the bookcase.'

Just as in Dutch (9) the situation of the *when*-clause can be temporally included in the situation of the main clause, so also in Dutch (14) the situation of John

[2] On the difference between *when*-structures and sequenced main clauses, see Sandström (1993).

walking to the bookcase can be interpreted as going on at the time of Mary's speaking. This overlap reading was not available for either English (12) or (6). Interestingly, however, no such difference is manifested in Dutch (13) as compared to English (5); the possible readings of these sentences, presenting the situation of being ill in the embedded clause, are the same.

Whereas the lack of a simultaneity reading in English, and the availability thereof in Dutch, can be observed in both main clauses and complement clauses, the latter case is different in some respects. First, the precedence reading of English (6) does not seem to be available for Dutch (14) at all.[3] In this respect, complement clauses differ from sequenced main clauses (and from *when*-structures) as the inchoative reading of English (10) and (12) was at least one of the possible readings of Dutch (9) and (11). Second, the situation presented in an embedded clause in Dutch sometimes *follows* the situation of the matrix. For instance, the most plausible interpretation of Dutch (15) is one in which the situation of leaving takes place after the situation of saying in the matrix; English (16), like (6), exclusively allows for a precedence reading.

(15) Mary zei dat John wegging.
Mary said that John left
'Mary said that John was leaving.'
(16) Mary said that John left.

A final difference between Dutch and English that will be discussed in this thesis concerns the possibility of reverse-order readings. This phenomenon was illustrated for English by means of the sequences in (2) and (4), repeated here for convenience.

(2) John opened the door. It was pitch dark in the room.
(4) John fell. Max pushed him.

As discussed above, one of the readings allowed for by (2) is one in which the room was dark before, but not necessarily after, the opening of the door. This is equally true of Dutch (17).

[3] Dutch (14) does allow for readings in which the embedded event ends up before the event of saying in the matrix. These readings, however, are all different from the particular kind of precedence reading allowed for by English (6). To arrive at this reading, Dutch arguably has to use a present perfect in the embedded clause, see esp. 6.4.2.

(17) John deed de deur open. Het was pikdonker in de kamer.
John did the door open it was pitchdark in the room
'John opened the door. It was pitch dark in the room.'

However, the literal Dutch translation of English (4), given in (18), does not allow for a reverse-order reading as easily as the English sequence does (Oversteegen 1993; Caenepeel/Moens 1994).

(18) John viel. Max duwde hem.
John fell Max pushed him

It emerges from these examples, and from all other examples discussed in this subsection, that whether or not there is a difference between the interpretation of the English past tense and the Dutch one is dependent on the type of situation presented. For the purpose of this introductory chapter it will suffice to distinguish between, on the one hand, clauses presenting stative situations (*states*) and, on the other hand, clauses presenting eventive situations (*events*). The former type of situations are atelic, i.e. they have no particular endpoint in time (such as /be ill/ or /be dark/), whereas the latter type of situations are telic, i.e. they have a well-defined endpoint (such as /leave/ or /write a letter/). In this thesis, I will refer to this distinction, as well as to more finegrained distinctions of situation types (to be discussed in Chapter 3) as a distinction of *Aktionsart*. Now, no differences between English and Dutch can be observed for clauses presenting states, such as /be ill/ in English (5) and Dutch (13) or /be dark/ in English (2) and Dutch (17). All differences noted concern clauses presenting events, such as /write a letter/ in Dutch (9) and English (10) or /leave/ in Dutch (15) and English (16). However, not *all* eventive clauses containing a past tense get a different interpretation in English and in Dutch; in particular, both languages use a simple past tense to present an iconically ordered sequence of events such as in English (1) and Dutch (7).

To summarize, the most notable differences between the English and the Dutch past tense in the domain of interclausal temporal ordering concern:

I. The lack of a simultaneity reading for event clauses in English which Dutch allows for.
II. The lack of a precedence reading of events in Dutch complement clauses, which is the only possible reading of such events in English.
III. The lack of a reverse-order reading for consecutive main clauses presenting events in Dutch, which English allows for.

No differences could be observed in the following cases:

IV. Both the English and the Dutch past tense is compatible with an iconic interpretation of events in syntactically independent clauses.
V. Stative clauses containing a past tense allow for the same interpretations in Dutch and English irrespective of syntactic environment.

The contrastive analysis to be carried out in this thesis should, obviously, be able to explain both the cases where the English and the Dutch past tense differ and the cases where they behave similarly. In addition to being a purpose in itself, explicit constrastive analysis provides a method to evaluate the validity of language-specific proposals, such as those made to account for the English data in 1.2.1. In the remainder of this chapter, I will present the main outline of the account proposed in this study.

1.3. Aspect

1.3.1. Aspect versus Aktionsart

In the previous section, it was noted that Aktionsart, i.e. the type of situation a clause presents, is relevant for determining temporal ordering across clause boundaries. More specifically, eventive clauses usually behave differently from stative clauses. For instance, whereas the event in the embedded clause of (19)a precedes the saying event in the matrix, the state in the embedded clause of (19)b probably includes the time of saying: Mary was sick at the moment John told us about it.

(19) a. John said that Mary wrote a letter.
b. John said that Mary was sick.

Extending the analysis to include other syntactic environments (see the main clauses and *when*-structures discussed in 1.2.1), the generalization seems to be that, in English, events resist inclusion readings altogether. Depending on the context, they may end up either *before* or *after* events presented in the surrounding discourse, as in (19)a and (1) respectively, but they are never interpreted as going on at the time of these other events. States, however, are typically interpreted in the latter way (see, for instance, (2) and (19)b). Such observations have given rise to many accounts of temporal ordering in terms of the distinction between states and events, or similar distinctions in the domain of

Aktionsart. It is, however, one of the claims of this study that formulating rules for temporal ordering in terms of Aktionsart does not reflect the correct level of analysis and that, therefore, such proposals miss important generalizations. This can be made clear by comparing English (19)a with Dutch (20).

(20) John zei dat Marie een brief schreef.
John said that Marie a letter wrote
'John said that Marie wrote/was writing a letter.'

For Dutch, the claim that event clauses do not allow for inclusion readings does not hold. As was already observed in the previous section, the sentence in (20) is compatible with a reading in which Mary was busy writing at the moment of John's utterance, and similar observations can be made in other syntactic contexts (see, for instance, the *when*-structures in (9) and (10)). Even though the predicate /write a letter/ refers to a situation that has a well-defined endpoint, namely the completion of the letter, it allows for a reading that, at least in English, was supposed to be reserved for states as in (19)b. To put it differently, the lack of inclusion readings is not a property of events *per se*, it is a property of events presented by means of a simple past tense form in English.

The issue points up a distinction that is at least as old as Agrell (1908) but that is blurred in most recent accounts of the relationship between aspectuality and temporal ordering in discourse; it is crucial to the contrastive analysis developed in this thesis. This concerns the distinction between Aktionsart, or *lexical* aspect, on the one hand, and aspect, or *grammatical* aspect on the other hand. I will use the term *aspectuality* (Dik 1989; Schwall 1991; Verkuyl 1993) as a cover term for both notions, as has been represented in (21).

(21) Aspectuality:
(a) Aktionsart (lexical aspect)
(b) aspect (grammatical aspect)

My claim is that interclausal temporal relations, to the extent that they are determined by aspectuality, are a matter of aspect rather than Aktionsart. I reserve the term *aspect* for the aspectual value of a language-specific formal category, such as the simple past tense in English and Dutch. Whereas the number of distinctions one assumes in the domain of *lexical* aspect mainly depends on the purpose of one's research, the only semantic distinction that I will regard as one of *grammatical* aspect is the distinction beween perfective and imperfective aspect.

I assume that tenses have both a temporal and an aspectual value. The temporal value of a tense form locates a situation in time with respect to a deictic centre, which in the standard case is constituted by the moment of utterance.[4] Tense can be used to locate the situation either before this moment (past), as being simultaneous with it (present), or as following it (future). Aspect offers a perspective on the situation that is, in principle, independent of the temporal location of the situation. Assuming, as an initial characterization, that perfective and imperfective aspect present situations as either "completed" or "ongoing" respectively (see, among many others, Comrie 1976 and Smith 1991), it can easily be seen that a verb form can be at the same time past (tense) and either perfective or imperfective (aspect).[5] This is illustrated by the pair in (22).

(22)	a.	John read the book	:	+past, +perfective
	b.	John was reading the book	:	+past, -perfective

These sentences also illustrate the difference between telicity (Aktionsart) and perfectivity (aspect). /Read a book/ is telic, i.e. has a (potential) endpoint, irrespective of the question whether it is presented as ongoing (imperfective) or completed (perfective). In the latter case, the potential endpoint that is implied at the level of Aktionsart is asserted to have actually been reached.

Even though aspect rather than Aktionsart is crucial to explaining temporal ordering in discourse, the category of Aktionsart will still play an important role in this study. The main reason for this is that lexical aspect and grammatical aspect interact in various ways, and in languages such as Dutch and English, which do not systematically mark grammatical aspect, lexical aspect is an important clue to determining grammatical aspect. Before turning to the category of grammatical aspect and its contribution to temporal ordering, I have to mention two simplifications concerning the category of Aktionsart that I will make throughout this book.

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[4] An alternative case is constituted by such sentences as *He will say that he was sick* in which the matrix clause sets up a deictic centre in the future; one possible interpretation of the embedded clause is one in which the past tense is interpreted as past relative to the shifted deictic centre rather than relative to the point of speech (see Chapter 2).

[5] Still, the categories of tense and aspect do interact in the sense that, for instance, a situation cannot be "ongoing at the moment of utterance" and at the same time "completed"; the semantics of present tense and perfective aspect are incompatible. As the English simple tense is arguably perfective in eventive clauses (see Chapter 6), this explains why *(i) John reads a book* is infelicitous (except on a habitual or historical present reading).

First, contrary to what the name, and the discussion so far, may suggest, Aktionsart is not an objective property of situations in the world. Rather, it is a property of the way situations are conceptualized and presented linguistically. Clauses present situations as either events or states, but this is a property of these clauses, not of the real-world situations they are meant to present. Indeed, a situation that at some point, or by one speaker, or in one particular language, is represented without reference to a particular endpoint may be represented at another moment, or by another speaker, or in another language, as having a well-defined endpoint. It could very well be argued that in such cases one is not really talking about *the same* situation, but such a line of reasoning only strengthens the point to be made here, namely that it is not reality that determines situation type (see, among others, Dahl 1985: 28; Janssen 1986a; Oversteegen 1989: 2) or, even, which situations can be distinguished to begin with (Janssen 1990). This is what should be kept in mind whenever I, for the sake of simplicity, talk about such things as "situations that have an endpoint". Likewise, "clauses presenting events" and "event clauses" are actually short for "clauses representing situations as events", just as "the Aktionsart of a clause" should be read as "the Aktionsart of the situation concept which the clause presents".

Second, I assume that it is possible to tell what situation concept the speaker had in mind on the basis of the linguistic elements he chooses to present it with. It has been well-established at least since Verkuyl (1972) that, to determine the Aktionsart of a clause, it does not suffice to look only at the verb that is used (cf. Mourelatos 1978; Dowty 1979); it was already shown above, for instance, that /write/ is atelic whereas the entire predicate /write a letter/ is telic. But even if we take into account every element within the clause that may give a clue as to the Aktionsart of the entire clause - most notably subject, object and temporal adverbials - it may be questioned if Aktionsart can be determined "in a mechanical and completely explicit way" (Dowty 1986: 43) by compositional semantic rules (the most elaborate proposal in this direction has been formulated by Verkuyl 1993). A particularly hard fact to deal with for such proposals is that many sentences allow for different Aktionsart readings depending on context and world knowledge. Still, apart from a brief discussion, in Chapter 3, of some of these complications, I will simply assume that the Aktionsart of a clause can be determined on the basis of lexical properties of all the elements within the clause.

As my main concern in this thesis is the past tense in Dutch and in English, I will restrict the discussion in this chapter to the categories of perfective and imperfective *past*. My definitions of these notions are slightly different from the complete/incomplete distinction referred to above; in my view, completion and incompletion are often part of the *interpretation* of perfective and imperfective verb forms but they do not constitute their *meaning*. More specifically, the sense

of completion, or lack thereof, arises from the interaction of, on the one hand, the semantics of aspect and, on the other hand, Aktionsart and discourse type.

1.3.2. Semantics of aspect

1.3.2.1. Imperfective past. As for the definition of imperfective aspect, I opt for the "anaphoric" approach to this category, which is particularly widespread in studies dealing with Romance languages (see Berthonneau & Kleiber 1993 and references cited).[6] In this view, it is required for an adequate use and interpretation of an imperfective that an "antecedent" time is independently provided by the surrounding discourse (or, at least, can be inferred therefrom); the situation presented by means of the imperfective is interpreted as holding at the antecedent time. I will use the notion of *reference time* (Reichenbach 1947) to denote this antecedent.[7] In the case of imperfective past, the reference time required for the interpretation of the imperfective will be a moment (or an interval) preceding the *point of speech* (S) that is identifiable for both speaker and hearer. It can be explicitly provided by, for instance, a *when*-clause or a matrix clause, as in (9) and (19)b (repeated here as (23) and (24)), but sometimes it has to be derived from non-linguistic context, which includes general knowledge of the world (see 1.4.2).

(23)	Toen	John	binnenkwam,	schreef	Mary	een	brief.
	when	I	entered	wrote	Marie	a	letter
	'When John entered, Mary wrote/was writing a letter.'						

(24) John told me that Mary was ill.

In (23) and (24), the situations of Mary writing a letter and being ill are indeed ongoing (and, therefore, as yet incomplete) at the moment of my entrance and John's telling me about Mary's illness respectively. Still, this interpretation is partly due to the fact that /write a letter/ and /be ill/ are durative situations that are anchored to a non-durative reference time. The only thing conveyed by an imperfective is that the situation holds at the reference point; it does not tell us

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[6] This is only one of the ways in which the notion of anaphor is used in studies dealing with tense and aspect; it is the only one that is useful for the purpose of this study, see Chapter 2, esp. section 2.3.

[7] My use of the notion of reference time as representing the temporal antecedent needed for the interpretation of imperfectives (and for nothing else) is admittedly somewhat idiosyncratic. See Hamann (1987), Janssen (1988), and Bertinetto (1992) for a critical discussion of the way the notion was used by Reichenbach (1947) and authors following him.

anything about what happens either before or after the reference time. The sentence in (25) illustrates the point that the sense of incompletion is not as such part of the semantics of imperfective aspect.

(25) Ik deed de deur dicht.
I did the door close
'I closed/was closing the door.'

Dutch (25) can, for instance, be used if the speaker wants to inform the hearer about the nature of a sound that he heard; the time of the sound of closing the door functions as reference time (cf. Janssen 1991a; see Tasmowsky-De Ryck 1985a, 1985b on the French *imparfait*). The situation of closing the door as presented in (25) cannot, however, be regarded as ongoing or incomplete; this should be attributed to the fact that, unlike the situations of /write a letter/ in (23) and /be ill/ in (24), the situation of closing the door is non-durative. The requirement of anaphoric anchoring to an independently provided reference time is fulfilled in both (23)-(24) and (25); it is part of the semantics of imperfective aspect and as such independent of lexical content.

1.3.2.2. Perfective past. For the interpretation of a perfective verb form an antecedent is not required; a situation presented by means of a perfective verb form is not interpreted as holding at a particular point in time. Instead, a perfective past presents a bounded situation occurring before the point of speech (E<S). This characterization is vague in the sense that it does not specify which bound of the situation is concerned: the left bound (starting point), the right bound (end point) or both bounds at the same time. However, this is precisely the kind of vagueness, lacking from the traditional "completed whole" definition, that is required to account for all occurrences of perfective forms (cf. Dahl 1985; Bickel 1996).

It is dependent, in particular, on lexical content and discourse type which bound is focused upon. For instance, when uttered in non-narrative discourse, English (26) indeed represents a completed event of writing a letter to be located somewhere in the past.[8]

[8] Interestingly, such a reading is not as easily available for its Dutch equivalent *Marie schreef een brief* ('Mary wrote a letter'), even though the Dutch past tense is compatible with perfective interpretations in other contexts. This is a contrastive puzzle which does not really concern interclausal temporal ordering, but a solution to it will automatically follow from my analysis, see section 1.5.3.1, and Chapter 6 (esp. 6.3.4) for the full analysis.

(26) Mary wrote a letter.

However, as was already discussed in 1.2.2, the main clause in (27) receives an inchoative reading, in which Mary did not start to write the letter until John came into the room.

(27) When John came in, Mary wrote a letter.

Left bounded readings as in (27) are typical of narrative discourse in which situations are linked to one another as parts of a causal chain rather than linked independently to the moment of utterance. As such, narrative discourse is primarily concerned with the left bounds of situations, i.e. with the question whether or not the new sentence moves narrative time forward in relation to the previous sentence. The right bound of a situation may be irrelevant; the completion of the letter is not a necessary condition for a coherent interpretation of (27). In (28), on the other hand, the continuation makes clear that the letter did get finished as the second event is "pragmatically compatible" (Boogaart 1995; see next section, and section 3.4.2 for a detailed discussion) only with the result of the first event, but this is not given by the semantics of the first clause.

(28) Mary wrote a letter and mailed it the same night.

In contrast to narrative discourse, non-narrative discourse views situations from the perspective of the here-and-now, independently of other situations in the past, and as such has the right bound (the end point) of past situations in view. The specific interpretation of a perfective past as referring to a completed whole, as in (26) and (28), is thus partly determined by discourse type and surrounding context, and not inherent to the semantics of perfective aspect.

In addition to discourse type, Aktionsart influences the interpretation of a perfective past as referring either to a left-bounded or right-bounded situation. It has been attested for many languages that inchoative readings, much like that in (27), often arise when states are presented by means of perfective verb forms. For instance, the interpretation of French (29), containing a perfective passé simple, can be rendered in English by the sentence in (30).

(29) Il fut malade.
he bePERF ill
(30) He fell ill.

A perfective past which, on the basis of either discourse type or Aktionsart or both, gives rise to an inchoative reading, is even compatible with a situation in which the event or state is still holding at the present moment; right-boundedness implies left-boundedness (a situation that is completed did start at some point), but the reverse is not necessarily true. Strictly speaking, what a perfective past asserts as occurring before the point of speech may be exclusively the beginning, but not the end, of a situation.

The semantic characterizations of imperfective past and perfective past to be used in this study have been summarized in (31) (cf. Löbner 1988).[9]

(31)	a.	Imperfective past presents a situation as holding at a time of reference preceding the point of speech (E,R<S)
	b.	Perfective past presents a bounded situation occurring before the point of speech (E<S)

Now, what is the relationship between, on the one hand, the clause-level semantics of aspect as defined in (31) and, on the other hand, the determination of temporal relations across clause boundaries? This question will be addressed in the following section.

1.4. Aspect and temporal ordering

1.4.1. Semantic and pragmatic compatibility

The interpretation of any utterance is underdetermined by the linguistic information provided by that utterance. Obviously, however, not all interpretations are compatible with the semantics of a word, a clause, or a sequence of clauses; what semantics does is no more, and no less, than restrict the number of possible interpretations (Janssen 1986b; Sperber & Wilson 1993; Fauconnier 1995; Verhagen 1997). In this sense, linguistic material can be compared to a filter that lets through certain interpretations but not others (Janssen 1986b). Consequently, to get an idea of the specific contribution of a linguistic category, such as the simple past tense in Dutch and in English, to the interpretation of discourse, it makes more sense to look at the kind of interpretation that is not allowed for by a

[9] In both instances, a point in time other than the point of speech may function as shifted deictic centre relative to which the past tense is interpreted (*He will say that he was sick*), cf. fn.4, see Chapter 2.

sequence of clauses containing this form than at the whole range of interpretations that is possibly compatible with it.

However, if a certain interpretation is not allowed for by an utterance containing a simple form, this can, of course, not be automatically attributed to the use of the simple form. More specifically, (in)compatibility comes in two sorts, which I will refer to as *semantic (in)compatibility* and *pragmatic (in)compatibility*.[10] I will say that an interpretation is semantically incompatible with an utterance if it is excluded by the semantics of any of the forms used. I will say that an interpretation is pragmatically incompatible with an utterance if it is ruled out because it is not supported either by world knowledge, or by general rules of cooperative language use (in the sense of Grice 1975). In the following subsections, I will further illustrate the notions of semantic and pragmatic compatibility by addressing the relationship between aspect and interclausal temporal ordering. Aspect does not *determine* temporal ordering in discourse; various interpretations are compatible with the semantics of perfective and imperfective aspect. Still, imperfective and perfective verb forms are systematically contextualized in different ways in accordance with their inherent semantics as defined in (31).

1.4.2. Imperfective aspect and temporal ordering

The semantics of imperfective past as given in (31)a require a reference time independently provided by the surrounding discourse. If the imperfective past presents a durative event, and a non-durative event from a preceding sentence or clause is interpreted as providing the reference time, this results in a reading in which the durative situation is going on at the time of the other situation. This constitutes one of the possible readings of (2), repeated here as (32).

(32) John entered the room. It was pitch dark in the room.

A similar reading arises if the event of saying presented in the matrix clause of sentences such as (33) is taken as the antecedent required for the interpretation of the embedded imperfective.

(33) John said that Mary was reading a book.

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[10] The notion of compatibility introduced in Boogaart (1995) (cf. Eberle 1992; Ter Meulen 1995) was of the latter sort.

Even though an inclusion reading is thus obviously compatible with the semantics of imperfective aspect, aspect does not *determine* temporal ordering of situations presented in consecutive sentences. The crucial impediment for postulating any such direct relationship between imperfective aspect and temporal overlap is that the semantics of imperfective aspect, as given in (31)a, does not put any constraints on where the reference time is taken from (cf. Molendijk 1993, 1996). More specifically, in a sequence of sentences the reference time may be provided by:

I. A situation mentioned explicitly in the preceding sentence or clause.
II. An inferred perception moment (point of perspective) to be situated either just after or just before an explicitly mentioned event.
III. A situation that is mentioned explicitly in the discourse preceding the immediately preceding or dominating clause.
IV. Extra-linguistic knowledge about the entities referred to.

The first case is illustrated by (one of the readings of) (32) and (33), discussed above. In the remaining cases, the temporal ordering with the situation presented in the immediately surrounding discourse is to be determined exclusively on the basis of pragmatic compatibility; I will now give an example of each of the possibilities mentioned.

Inferred perception moment. Even in a standard example of temporal overlap such as (32), it is arguably not the situation of the preceding sentence which provides the reference time at which the state of the second sentence holds, but rather an inferred *point of perspective* to be situated "just after" (cf. Partee 1984; Hinrichs 1986) that situation. All we can say on the basis of (32) is that the state of the room being dark obtained at the moment John noticed it; the reason that we assume that it was also dark precisely at the moment of opening the door and before that moment is because there is no pragmatic incompatibility excluding such an inference. Such an analysis allows for a unified treatment of (32) and the sentences in (3), repeated here as (34).

(34) a. John switched off the light. It was pitch dark in the room.
b. John opened the door of the fridge. The inside was brightly lit.

Alternatively, the situation may be holding at a point of perspective "just before" the situation of the preceding clause. This is the case on the reverse-order reading of the sentences in (35).

(35) a. John switched on the light. It was too dark in the room.
b. John took an aspirin. He was feeling nauseous.

Whether or not the situation of the second sentence is still holding at the time of the situation presented in the first sentence and just after that, is - again - purely a matter of pragmatic compatibility. We may assume that the situation of the room being dark in (35)a was over as soon as the light was switched on, whereas the feeling of nausea referred to in the second sentence of (35)b *probably* did not disappear at the very moment John took the aspirin. Other readings, however, are not excluded by either semantic or pragmatic incompatibility.

Reference time given earlier in the discourse. An embedded imperfective such as that in (33), repeated here as (36)a, does not automatically give rise to a reading of simultaneity with the matrix situation. More specifically, the reference time may be provided by a situation preceding the matrix situation, presented in (or inferrable from) the surrounding discourse (cf. Abusch 1997). This is illustrated in (36)b.

(36) a. John said that Mary was reading a book.
b. The inspector claimed that it was Mary who committed the murder on Thursday night around 9 o'clock. However, John said that Mary was reading a book (at that time).

It is important to note that complement clauses as in (36)a do not allow for a reading in which the embedded imperfective takes its reference time from a situation *following* the matrix situation; this has been referred to as the lack of a "forward shifted" reading. In my view, such a reading is semantically compatible with (36)a, but it is ruled out by pragmatic incompatibility. More specifically, a forward shifted reading is incompatible with the assumption that when a speaker uses the form of indirect speech to report someone's utterance, he commits himself to giving a truthful report of the original utterance; this is captured by Cutrer's (1994) fact/prediction principle (see 2.2.2.4).

Reference time given by extra-linguistic knowledge. Finally, we should take into account the possibility that the reference time needed to interpret an imperfective is to be inferred on the basis of our extra-linguistic knowledge about the entities referred to. Thus, in (37)a it is possible to take the time of the matrix situation as the antecedent for the embedded situation, resulting in a simultaneity reading much like the one available for (36)a.

(37) a. Everyone said that Mary was a great teacher.
b. At her funeral, everyone said that Mary was a great teacher.

However, if the context or our general knowledge of the world provides us with the information that Mary is no longer alive at the time of saying referred to in the matrix clause, as in (37)b, then such an inclusion reading is pragmatically incompatible with the utterance and it is the whole lifetime of Mary (or a relevant subpart thereof) that functions as reference time (cf. Musan 1997).

In accordance with the semantic description in (31)a, the situation presented by means of an imperfective past in (32)-(37) is anchored to an independently given reference time. The case in which this reference time is provided by a situation presented in an immediately preceding clause or sentence is, however, just one of the interpretations that are semantically compatible with imperfective past.

1.4.3. Perfective aspect and temporal ordering

The inherent semantics of perfective past, as given in (31)b, require the situation to be viewed as a bounded one (perfective aspect) occurring before the moment of utterance (past tense). In narrative sequences such as my example (1), repeated here as (38), this typically gives rise to a sequence reading: a clause containing a perfective past introduces a situation into the discourse the left bound (starting point) of which is to be situated after the right bound (end point) of the situation of the previous clause.

(38) John opened the door and walked to the bookcase.

If a situation is conceptualized as a punctual one, which is the case for /open the door/ in the first clause of (38), the left bound and the right bound of the situation coincide, so that the situation of the second clause cannot be temporally situated within the situation of the first clause. If the situation is durative, such as /walk to the bookcase/ in the second clause of (38), it depends on pragmatic compatibility with situations presented in the following discourse whether the situation, in addition to being bounded to the left, is also bounded to the right (cf. the discussion of (28)).

Temporal sequence as exemplified in (38) cannot, however, be considered part of the semantics of perfective past; it is merely compatible with it. Two situations presented by means of perfective past forms can also be interpreted as having happened simultaneously. If the situations presented in (38) are carried out by different agents, as in (39), such a simultaneity reading is allowed; both situations

may, for instance, be left-bounded with respect to yet another situation, as demonstrated in (39)b.

(39) a. John opened the door and Mary walked to the bookcase.
b. When the doorbell rang, John opened the door and Mary walked to the bookcase.

If the ringing of the doorbell in (39)b is taken as prompting John's and Mary's actions referred to in the main clause, then both actions are left-bounded because of pragmatic incompatibility of causes and effects (Chapter 3, section 3.4.2.2). Thus, neither overlaps with the situation of the *when*-clause, but they are unordered with respect to each other. This illustrates that (38) is not semantically incompatible with a simultaneity reading, but this reading is ruled out because of pragmatic incompatibility; one cannot at the same time open a door and walk to a bookcase.

However, simultaneity as in (39)b is different from inclusion; a reading in which a situation holds at the time of another situation, i.e. an imperfective reading, is semantically incompatible with perfective past. Thus, given that the English simple past is perfective in eventive clauses, a simultaneity reading in sentences such as in (40) is ruled out because of semantic incompatibility.

(40) a. When John came in, Mary wrote a letter.
b. John said that Mary wrote a letter.

As was already noted in 1.3.3.2, the kind of left-boundedness illustrated in (38), (39) and (40)a is typical of narrative discourse; this is another reason why it cannot be considered part of the meaning of perfective aspect. In non-narrative discourse, situations presented by means of perfective past forms are interpreted as bounded on both sides and as such preceding the point of speech irrespective of other situations in the past. This discourse mode, therefore, even allows for readings in which the situation of the second clause precedes the situation of the first clause, as in the reverse-order reading of (41).

(41) John fell. Max pushed him.

The category of aspect clearly does not determine temporal ordering of situations mentioned in consecutive clauses in discourse. Aspect is nonetheless crucial for an understanding of temporal interpretation, and thus for a solution to the puzzles from 1.2. The reason for this is twofold.

First, both perfective and imperfective aspect may, for instance, be used in a situation of non-overlap with a preceding situation, as in (38) and (34)a respectively, repeated here as (42)a and (42)b, but the resulting interpretation is still qualitatively different in both cases, in accordance with the different inherent semantics of perfective and imperfective aspect as given in (31).

(42) a. John opened the door and walked to the bookcase.
b. John switched off the light. It was pitch dark in the room.

More specifically, in (42)a the situation of the second clause is left-bounded; it is incompatible with the situation of the first clause - one cannot open a door and walk at the same moment - and as such it moves narrative time forward. In (43)b the situation of the second clause is interpreted as holding at a point of perspective just after the switching off of the light. The notion of compatibility enables one to explain all possible and impossible interpretations at discourse-level while at the same time maintaining a unified semantic description for perfective and imperfective aspect.

Second, the category of aspect is crucial for an understanding of the contrastive data; I will turn to these in the following section.

1.5. Aspect in Dutch and English

1.5.1. *Grammaticalization of zero*

An understanding of the relevance of aspect for issues of interclausal temporal ordering does not automatically provide us with an explanation for the data in 1.2. In particular, the simple past tense in English and in Dutch allows for both perfective and imperfective readings and an explanation of the data in terms of aspect presupposes an analysis of when these tenses get one or the other reading. The issue is further complicated by the fact that, while both the English and the Dutch past tense are unmarked for aspect, the instances in which they are unambiguously interpreted as either perfective or imperfective are not the same in both languages. To explain both the different and the similar uses of the English and the Dutch simple past tense in discourse, it is necessary to take into account alternative means of expression that are available to the language user, in particular (a) the present perfect (Chapter 4), and (b) the progressive in English and some progressive-like verb formations in Dutch (Chapter 5).

What can the use of these other categories teach us about the interpretation of the unmarked form? Bybee (1994) describes the mechanism whereby,

diachronically, the grammaticalization of marked forms changes the interpretation of the unmarked form - the zero form - in a predictable way as *grammaticalization of zero*. Independently of the grammaticalization framework, a highly similar but synchronic approach to the aspectual interpretation of unmarked tenses has been advocated by Bickel (1996). The reasoning behind both approaches is the same: if there is an explicit means available to the language user to express a certain meaning, then a cooperative language user will use that form; if he does not use the marked form but instead uses the unmarked form, the hearer is entitled to assume that the speaker did not intend to communicate the meaning of the marked form.

However, the mechanism of grammaticalization of zero can explain the aspectual interpretation of the unmarked forms in Dutch and English only as long as (a) Aktionsart, and (b) discourse type are taken into account. The reason for this is that the *availability* of marked forms does not suffice as an explanation for the interpretation of the unmarked form. Indeed, both in English and in Dutch, grammatical means to express perfective or imperfective are available, so it is difficult to see how the general principle of grammaticalization of zero could help us explain why the interpretation of the unmarked form in these languages sometimes differs between one language and the other. It is only when the use of a marked form to express perfective or imperfective aspect is in fact *obligatory*, rather than merely possible, that the unmarked form will automatically get the opposite reading. Now, the expression of aspect by means of a marked form is not as such obligatory in either Dutch or English, but it sometimes is obligatory *given a certain Aktionsart or in a certain discourse type*. Consequently, grammaticalization of zero can often predict the aspectual interpretation of the unmarked form, when presenting a certain Aktionsart, or when used in a certain discourse type. When these variables are taken into account, the differences between English and Dutch follow from the analysis as well.

The grey areas in *Table 1.1* and *Table 1.2* below present the aspectual domain left to be covered by the unmarked past tense in Dutch and English, with the variables of both Aktionsart and discourse type taken into account. (These tables will be built up step-wise in the course of Part II of this dissertation.)

Table 1.1. The expression of aspect in Dutch and English narrative discourse.

MODE	Narrative			
AKTIONSART	State		Event	
ASPECT	Perfective	Imperfective	Perfective	Imperfective
English		*Prog*		*Progressive*
Dutch	*Perf*		*Perf*	*Loc*

Table 1.2. The expression of aspect in Dutch and English non-narrative discourse.

MODE	Non-Narrative			
AKTIONSART	State		Event	
ASPECT	Perfective	Imperfective	Perfective	Imperfective
English		*Prog*		*Progressive*
Dutch	*Perfect*		*Perfect*	*Loc*

In the following subsection, I will elucidate the role of Aktionsart (1.5.2) and discourse type (1.5.3) in disambiguating the unmarked past in Dutch and English as either perfective or imperfective.

1.5.2. Aspect and Aktionsart

1.5.2.1. Events. In English, the use of an aspectually marked form, namely the progressive, to express imperfective aspect is obligatory if the clause presents an event (Chapter 5). Grammaticalization of zero then predicts that the unmarked simple past in English gets a perfective reading in eventive clauses (Chapter 6). In Dutch, the use of a progressive-like construction, referred to as Loc(ative) in *Table 1.1* and *Table 1.2*, is sometimes possible in event clauses, but it is not obligatory to express imperfective aspect (Chapter 5). As a consequence, the Dutch unmarked past tense can be either perfective or imperfective in eventive

clauses.[11] As perfective aspect is semantically incompatible with inclusion readings (see 1.4.3), this analysis explains the lack of inclusion readings for English event clauses containing a past tense such as (40)a and (40)b discussed above and the availability of such readings for their Dutch equivalents in (43).

(43) a. Toen John binnenkwam, s chreef Mary een brief.
when John entered wrote Mary a letter
'When John entered, Mary wrote/was writing a letter.'
b. John zei dat Mary een brief schreef.
John said that Mary a letter wrote
'John said that Mary wrote/was writing a letter.'

As the Dutch unmarked past allows for imperfective readings of events, the situation of Mary writing a letter in (43)a can be interpreted as holding at the time of reference provided by the *toen*-clause, or rather at an inferred perception moment just after the situation of John entering (cf. 1.4.2). As the Dutch unmarked past tense is also compatible with perfective readings, the sentence in (43)a, in addition, allows for the left-bounded interpretation of English (40)a. As for (43)b, the time of John speaking in the matrix is available as the reference time for the embedded imperfective presenting Mary writing a letter, resulting in a simultaneity reading. As, in my analysis, the Dutch unmarked past allows for both perfective and imperfective readings, the precedence reading of English (40)b should be another possible reading of (43)b. This conclusion, however, is not borne out. An explanation for this can only be given if, in addition to Aktionsart, the role of discourse type is taken into account (see 1.5.3).

1.5.2.2. States. For states, the expression of imperfective aspect by means of a progressive is sometimes possible in English, in particular for so-called stage-level predicates (Chapter 5), but it is not an obligatory precondition for an imperfective reading. In Dutch, the explicit expression of imperfective aspect is not allowed in stative clauses at all. As a consequence, the unmarked past tense in Dutch and in English allows for the same range of aspectual interpretations. In principle, this means that (aspectually unmarked) stative clauses in Dutch and English allow for both perfective and imperfective readings, but given the inherent structure of states they will typically be interpreted as imperfective rather than perfective (see 5.5.3.1 on standard aspect choice, cf. Smith 1983, 1991). In any case, there are no

[11] But grammaticalization of zero also predicts that there is some pressure to give it an imperfective reading in non-narrative discourse, see next section.

differences between the aspectual interpretation of the English past tense and the Dutch one in stative clauses, whether in consecutive main clauses, *when*-structures, reverse-order sequences or complement clauses (see 1.2.2).

1.5.3. Aspect and discourse type

1.5.3.1. Non-narrative discourse. In the domain of imperfective aspect, the progressive is available as an alternative for the unmarked form with systematic consequences for the interpretation of the latter; in the domain of perfective aspect, the semantic domain covered by the present perfect should be taken into account.

The semantic notion present perfect should be distinguished from the notion perfective past as defined in (31)b. In particular, the present perfect presents two situations rather than one: in addition to presenting a past situation, the present perfect presents an imperfective state holding at the present moment; the point of speech fulfills the role of reference time required for the interpretation of the imperfective state (1.3.3.1). Thus, the difference between the semantics of present perfect and perfective past can be represented as in (44)a and (44)b. (The representation for imperfective past is given in (44)c for ease of comparison.)

(44) a. Present Perfect: E1<S,R,E2
b. Perfective Past: E < S
c. Imperfective Past: E,R<S

The formal category labeled present perfect in Dutch has uses that, semantically, can be considered perfective past rather than present perfect. It is a sufficient condition for the use of the present perfect in Dutch that a past situation is (a) bounded to the right, and (b) linked to the moment of utterance independently of other situations in the past. To put it differently, the Dutch present perfect can be used as a perfective past in non-narrative discourse, in which situations are viewed from the perspective of the here-and-now. In fact, the use of a present perfect to present a right-bounded situation is arguably obligatory in Dutch non-narrative discourse. Following the principle of grammaticalization of zero, this leaves the domain of imperfective past to be covered by the unmarked past tense in Dutch non-narrative discourse (see *Table 1.2*).

Contrary to analyses of the distribution of perfect and simple past verb forms that are cast exclusively in terms of definiteness, an analysis in terms of aspect can explain why Dutch does not use an unmarked past to present the situation of not turning off the stove in the Dutch equivalent of Partee's famous example given in (45)a, even though the situation is situated within a contextually salient

(thus definite) interval of time ("just before leaving the house"). Instead, Dutch uses a present perfect in this non-narrative context, as in (45)c; the past tense in (45)b prefers an imperfective reading, unless it is used in a narrative context (see next subsection).

(45) a. I didn't turn off the stove. (Partee 1973, 1984)
b. Ik draaide het gas niet uit.
I turned the gas not out
'I did not/was not turning off the stove.'
c. Ik heb het gas niet uitgedraaid.
I have the gas not turned out
'I haven't turned off the stove.'/'I didn't turn off the stove.'

In English, the formal category labeled present perfect is a present perfect semantically in the sense that all its uses can be represented as in (44)a. This means that it is not a sufficient condition for the use of a present perfect in English that there is some link between a situation in the past and the moment of utterance. Instead, there are severe restrictions on the situation that should hold at S in order for the use of the present perfect in English to be felicitous: either the result state of a (telic) situation holds at S (*the resultative reading*), or the (atelic) situation itself still holds at the present moment (*the continuative reading*) (see Chapter 4). The anaphoric linking of a state to the present moment is an inherent part of the semantics of the English present perfect. Obviously related to this is the well-known incompatibility of the English present perfect with temporal adverbials referring to a definite moment in the past. Thus, the use of a present perfect to express perfective past in non-narrative discourse is not obligatory in English - in fact, it is arguably not allowed at all - thus leaving part of the domain of perfective past to be covered by the simple past.

1.5.3.2. Narrative discourse. In narrative discourse, situations are primarily linked to each other rather than independently to the moment of utterance; in the terminology used by Sandström (1993) and Caenepeel (1995), the point of speech is "bracketed" in narrative discourse (cf. also Bache 1986).[12] It does not come as a surprise then that the English present perfect, which is basically a present tense presenting a state holding at the moment of utterance, cannot be used in narrative discourse. As for the Dutch present perfect, unlike the English one, it can be used

[12] Cf., furthermore, Benveniste's (1969) distinction between *histoire* (narrative) and *discours* (non-narrative), as well as Weinrich's (1964) *erzählte Welt* (narrative) and *besprochene Welt* (non-narrative); see Vetters (1996) for a recent comparison and discussion of these approaches.

to present a sequence of iconically ordered situations from the past. Such a sequence, however, has a distinct non-narrative flavour to it because the finite verb form of the Dutch present perfect still refers to the moment of utterance, which is supposed to be bracketed in narrative discourse. In any case, the use of a present perfect to express perfective past aspect is far from obligatory in Dutch narrative discourse; in fact, it is arguably not possible at all (see Chapter 5).

As a consequence, the principle of grammaticalization of zero does not predict the aspectual meaning of the unmarked past in Dutch narrative discourse. Whereas in non-narrative discourse it basically functions as an imperfective past because the domain of perfective past is covered by the present perfect, in narrative discourse the Dutch unmarked past is compatible with both perfective and imperfective readings. Thus, if Dutch (45)b, repeated as (46)a, is used in a narrative sequence of the sort exemplified in (46)b, then it is compatible with a perfective reading.

(46) a. Ik draaide het gas niet uit.
I turned the gas not out

b. Voordat ik het huis verliet deed ik alle gordijnen dicht en sloot alle deuren, maar *ik draaide het gas niet uit.*
'Before I left the house, I closed all the curtains and locked all the doors, but I didn't turn off the stove.'

In non-narrative discourse, the English simple past can be rendered in Dutch by means of an unmarked past tense only if the clause presents a state (*Table 1.2*), but in narrative discourse, the interpretation of the two tense forms is usually equivalent irrespective of Aktionsart. The only difference that persists in narrative discourse is that the Dutch unmarked past is compatible with imperfective readings when it presents either a state or an event, whereas English obligatorily uses a progressive for imperfective events.

Of the contrastive puzzles presented in 1.2.2, two have so far remained unsolved, namely (a) the lack of reverse-order readings for Dutch sentences containing an unmarked past, and (b) the lack of a precedence reading for Dutch complement clauses containing an unmarked past. However, my approach to the aspectual interpretation of the unmarked past in Dutch and English, as summarized in *Table 1.1* and *Table 1.2* (section 1.5.1) contains all the ingredients needed to solve these problems, as I will briefly show in the following section. (The full analysis can be found in sections 6.4 and 6.5).

1.5.4. Two remaining puzzles solved

1.5.4.1. Lack of reverse-order interpretation for Dutch unmarked past. Given that reverse-order interpretation occurs exclusively in non-narrative discourse (Caenepeel & Moens 1994), my analysis explains why English (47)a is compatible with such a reading, whereas Dutch (47)b is not.

(47) a. John fell. Max pushed him.
b. Jan viel. Max duwde hem.
Jan fell Max pushed him

In non-narrative discourse, situations are linked to the moment of speech independently of other situations; pragmatic knowledge, for example about the typical relationship between the situations of pushing and falling, can thus freely determine temporal ordering. Now, the form to express perfective past in non-narrative discourse in Dutch is not the preterit, as in (47)b, but the present perfect (see *Table 1.2*). And indeed, as the analysis predicts, the Dutch sequence in (48) containing two instances of the present perfect allows for a reverse-order reading.

(48) Jan is gevallen. Max heeft hem geduwd.
Jan is fallen Max has him pushed

The simple past in Dutch does allow for perfective readings, but it does so exclusively in narrative discourse (see *Table 1.1*), where narrative processing rules will result in an iconic reading for sequences such as (47)b; in this discourse mode, reverse-order has to be explicitly marked, for instance by the use of a past perfect in the second clause. Other possible tense combinations in English and Dutch which allow or disallow reverse-order interpretations will be discussed in Chapter 6, section 6.5. (Some complications and remaining problems will be presented in section 7.2.)

1.5.4.2. Lack of precedence reading of Dutch complement clauses. It was first noted in 1.2.2 that English (49)a allows for a kind of precedence reading that Dutch (49)b does not allow for.

(49) a. John said that Mary read a book.
b. John zei dat Mary een boek las.
John said that Mary a book read
'John said that Mary read/was reading a book.'

The lack of a precedence reading in Dutch (49)b cannot be explained exclusively in terms of aspect as the perfective reading of the embedded simple past in English (49)a is one of the possible readings of an unmarked past in Dutch. To account for it, it is important to note that in Dutch and English indirect speech, two options are available to the reporting speaker when talking about a situation that is past for the reported speaker:

I. He presents the situation in the embedded clause from his own vantage point, thus from the perspective of the here-and-now, independent of the moment at which the reported speaker uttered his words (*the absolute reporting strategy*).
II. He presents the situation in the embedded clauses (also) from the perspective of the reported speaker (*the absolute-relative construal*).

Choosing the first reporting strategy, a speaker of Dutch will have to use a present perfect in the embedded clause, as in (50), to link the situation to the moment of utterance independently of the situation in the matrix clause.

(50) Jan zei dat Marie een boek gelezen heeft.
Jan said that Marie a book read has
'Jan said that Marie has read a book.'/'Jan said that Marie read a book.'

This reporting strategy is basically a non-narrative one as the embedded situation is presented as independently anchored to the here-and-now, and the forms to be used on this strategy are, therefore, those found in *Table 1.2*. As the table shows, English will often (have to) use a simple past form in the embedded clause, as in (49)a, because of the many additional restrictions on the use of the present perfect in English as compared to Dutch. The reason that both in (49)a and (50) the situation of reading a book is interpreted not just as preceding the moment of utterance, but also as preceding the event of saying in the matrix is because the simultaneity reading is ruled out by the semantic incompatibility of perfective aspect and temporal inclusion (1.4.3.) whereas the forward shifted reading is ruled out by pragmatic incompatibility (1.4.2).

On the second reporting strategy, both English and Dutch will use past perfect in the embedded clause, as in (51), to express the idea that the situation in the embedded clause precedes the situation of the matrix clause.

(51) a. John zei dat Marie een boek gelezen had.
John said that Marie a book read had
'John said that Mary had read a book.'
b. John said that Mary had read a book.

More specifically, the past perfect presents (a) an imperfective state holding at an independently provided reference time (in the past) and (b) a situation preceding that state; if the situation of the matrix clause provides the reference time for the embedded state, the situation of the past participle automatically ends up before the saying event.

As for the Dutch unmarked past tense as in (49)b, it can be used in the first, non-narrative, reporting strategy, but is then interpreted as an imperfective (see *Table 1.2*), which explains the preferred reading of this sentence. The reference time for the interpretation of the embedded imperfective can be provided either by the matrix situation or by a time preceding that situation. The latter case results in a kind of precedence reading that is different from the absolute reading of English (49)a.

The Dutch unmarked past *can* be used as a perfective past tense in narrative discourse (see *Table 1.1*), but then the situation it presents is interpreted as one in an iconically ordered sequence of (left-bounded) situations. If the situation in the embedded clause of (49)b, repeated as (52)a, can be interpreted as a link in such a narrative chain of situations, as in (52)b, then the sentence does allow for yet another type of precedence reading.

(52) a. Jan zei dat Marie een boek las.
Jan said that Marie a book read
b. Jan zei *dat Marie* op die bewuste avond eerst *een boek las*, daarna de afwas deed en pas na middernacht naar bed ging.
'Jan said that at that particular night, Marie first read a book, then washed the dishes and didn't go to bed until after midnight.'

The kind of precedence reading exemplified in (52)b should, however, be distinguished from the independent precedence reading that is compatible with English (49)a (see 6.3.3).

At this point, all differences and similarities between the Dutch and the English unmarked past tense in discourse as listed in 1.2.2 have been explained in

terms of (a) aspectuality and (b) discourse type. (See, however, sections 7.2 and 7.5 for a few remaining problems.)

1.6. Outline of the thesis

This thesis consists of two parts. The main purpose of part I, which is the more theoretically oriented part of this thesis, will be to determine to what extent temporal interpretation is a matter of linguistic decoding, and to what extent it has to be left to pragmatic inferencing on the basis of world knowledge. In Part II, I will show how the distinction between perfective and imperfective aspect, which is established in part I as a relevant linguistic parameter for establishing temporal relations across clause boundaries, has grammaticalized in Dutch and English, and how it explains the contrastive data on temporal ordering presented in 1.2 above.

Part I (*Tense, aspectuality and temporal ordering*) consists of two chapters dealing with the two linguistic categories that are, or have been argued to be, relevant for determining interclausal temporal relations: tense (Chapter 2) and aspectuality (Chapter 3).

In Chapter 2, I will argue that, with some exceptions - in particular, past tenses embedded under a future as in *he will say that he was sick* - the category of tense as such does not provide readers and hearers with clues about temporal ordering. In this sense, Chapter 2 can be regarded as a move away from the category of tense to the domain of aspectuality, to which the rest of this thesis will be dedicated. Still, the chapter on tense will allow me to address two important issues which figure prominently in the contemporary literature on tense in discourse and which both have some bearing on the problem of temporal ordering: (a) the alleged "definite" or "anaphoric" nature of tense, and (b) the phenomenon of *sequence of tenses*.

With regard to the first issue, following a long-standing tradition in Romance linguistics, I will argue in favour of restricting the notion that tense is anaphoric to imperfectives and thus treat it as a matter of aspect rather than tense (2.3). As for sequence of tenses, I will argue that tense forms get the same interpretation in embedded and in non-embedded clauses (2.2.2.2); restrictions on the temporal interpretation of complement clauses will be treated as a matter of (a) aspect (2.2.2.3), and (b) pragmatics (2.2.2.4). Thus, I will argue in favour of an independent analysis of embedded tense (Salkie & Reed 1997), in which there is no need for a formal device such as a rule of sequence of tenses.

Chapter 3 deals with the contribution of aspectuality to the determination of temporal ordering. Just as Chapter 2 can be characterized as a move from tense to aspectuality, Chapter 3 can be regarded as a move from Aktionsart, or *lexical*

aspect, to *grammatical* aspect, and thus to the distinction between perfective and imperfective aspect, while acknowledging the interplay between Aktionsart and aspect. I will show that formulating rules for temporal ordering at the level of Aktionsart (the distinction between states and events), as has become the standard approach in proposals dealing with English (3.2), does not reflect the correct level of analysis; this becomes especially clear when other languages than English are taken into account (3.3).

In the second part of Chapter 3, I will show that even though an approach in terms of aspect is more general and more explanatory than one in terms of Aktionsart, any account of temporal interpretation that does not take world knowledge into account is insufficient (3.4). I will discuss the pragmatic cosntraints on temporal interpretation imposed by discourse type (3.4.1) and pragmatic incompatibility (3.4.2). The latter notion will turn out to be more general, and therefore more explanatory, than the notion of causality that has often been used in pragmatic accounts of temporal ordering (3.4.2.2).

After having established in part I that temporal ordering is at least to some extent determined by grammatical aspect, part II (*Aspect in Dutch and English*) will be dedicated to the question how the distinction between perfective and imperfective aspect has grammaticalized in Dutch and English. The contrastive data to be explained in this thesis (see 1.2) mainly involve clauses containing a (simple) past tense. However, it is one of the claims of this thesis that, following the principle of grammaticalization of zero (Bybee 1994), the aspectual interpretation of the unmarked form is determined by the synchronic grammaticalization of aspectually marked forms in these languages (cf. Bickel 1996). That is why before addressing the unmarked past (Chapter 6), I will discuss the present perfect (Chapter 4) and the progressive (Chapter 5).

In Chapter 4, I will answer the question to what extent the semantic domain of perfective past is covered by the formal category present perfect in Dutch and English. After having discussed the difference between the semantic notions present perfect and perfective past (4.2), the main claim of this chapter will be that the Dutch present perfect covers the domain of perfective past but that this is restricted to non-narrative discourse (as defined by Sandström 1993 and Caenepeel 1995) (see especially 4.4.3). The English present perfect does not function as a perfective past in either narrative or non-narrative discourse.

In Chapter 5, I will deal with the question to what extent the semantic domain of imperfective past is covered by the progressive in English and by certain progressive-like verb formations in Dutch. It will turn out that the English progressive is obligatorily used to express imperfective aspect for the Aktionsart categories of acitivities and accomplishments (5.5.3.2), whereas its use is possible (but not obligatory) for stage level statives (5.4.1). The Dutch locatives cover only

part of the domain of imperfective activities and accomplishments (5.4.2) and cannot be used at all for states, whether of the stage level or individual level kind (5.4.1). Their use is obligatory for expressing imperfective aspect only in some highly specific cases (5.5.2).

In Chapter 6, I will combine the findings of Chapter 4 and Chapter 5, which will result in a picture of the aspectual domain left to be covered by the unmarked past tense in English and in Dutch (6.3.2). I will discuss the crucial role of (a) Aktionsart (6.3.3) and (b) the distinction between narrative and non-narrative discourse (6.3.4) in disambiguating the unmarked past in Dutch and English as either perfective or imperfective. In the final part of this chapter I will show how the analysis of aspect in Dutch and English as developed in part II of this thesis can explain the contrastive data on (a) complement clauses (6.4) and (b) reverse-order sequences (6.5).

In Chapter 7, I will reflect on the results of this study, and on the contrastive method used to obtain them, as well as present some remaining problems.

Part I

Tense, aspectuality, and temporal ordering

2 Tense

2.1. Introduction

In this chapter, I will deal with the question to what extent the category of tense, in particular the past tense, contributes to an understanding of temporal ordering in discourse. My claim is that, with some exceptions (section 2.2.1), the category of tense as such does not provide hearers with clues about interclausal temporal ordering; the past tense situates states and events in a temporal domain preceding "now" and is semantically compatible with any temporal ordering between those states and events, as should be sufficiently clear from the data provided in Chapter 1.

This chapter will enable me to address two issues that figure prominently in the contemporary literature on tense in discourse and that both have some bearing on the topic of interclausal temporal ordering: (a) the phenomenon of *sequence of tenses*, and (b) the alleged anaphoric nature of tense. I will address these issues by discussing two competing analyses of tense, which I will refer to, following Kamp & Rohrer (1983b), as the *one-dimensional* and the *two-dimensional* analyses. According to the one-dimensional approach (section 2.2), past tense exclusively means "past" or "precedence" with respect to the deictic centre, which may be constituted either by the *point of speech* (S) or by a point in time other than the point of speech which functions as a shifted deictic centre (S'). I will refer to the relationship between a situation and a deictic centre expressed by tense as the *deictic dimension* of tense. The two-dimensional approach to the past tense (section 2.3) claims that whenever a situation is presented by means of a past tense form, the situation *also* has to be linked to an independently provided, or inferrable, *point* (*interval*, or *frame*) *of reference* (R) in the past. In this approach, tense is considered to have an *anaphoric dimension* in addition to a deictic dimension.

The relevance of the deictic dimension of tense for the topic of this thesis, i.e. interclausal temporal ordering, can be illustrated by the sentences in (1).

(1) a. He will say that he read that book.
b. He said that he read that book.

The sentence in (1)a has a reading in which the embedded past tense expresses precedence with respect to the event of saying presented in the matrix (S') but not (necessarily) with respect to the moment of utterance of the reporting speaker (S). As for (1)b, it was presented in Chapter 1 as one of the puzzles to be solved in

this thesis that this sentence only allows for a reading in which the situation in the embedded clause precedes the time of the matrix event. The analysis of (1)a suggests that the interpretation of (1)b can, likewise, be explained by taking the time of the matrix event as a shifted deictic centre relative to which the embedded past tense is interpreted. This, in fact, is the most common analysis of (1)b to be found in the literature; it makes it necessary to postulate a rule of sequence of tenses to account for the simultaneity reading of past-under-past (2.2.2.1). I will claim, however, that the embedded past tense in (1)b merely expresses precedence with respect to S (2.2.2.2), leaving the ordering with respect to S' to (a) aspect, which rules out the simultaneity reading (2.2.2.3), and (b) pragmatic incompatibility, which rules out the forward shifted reading (2.2.2.4). On this account, there is no need for a device such as a rule of sequence of tenses.

The anaphoric dimension of tense is used in the literature to characterize (at least) three qualitatively different phenomena, none of which is arguably a matter of tense. I will discuss these different phenomena in 2.3, and argue in favour of restricting the notion of temporal anaphor to one of them, namely the linkage to an independently provided reference time required for the use and interpretation of imperfectives (cf. 1.3.2.1). In other words, following Löbner (1988), I argue in favour of a one-dimensional analysis of perfective past and a two-dimensional analysis of imperfective past.

As for the relationship between tense and temporal ordering, my conclusion will be that the deictic dimension, which is inherent to the semantics of tense, does not provide information on interclausal temporal relations (with the possible exception of sentences such as (1)a); to the extent that the anaphoric dimension which is sometimes attributed to tense provides information on temporal ordering, it should be attributed to (imperfective) aspect or (narrative) discourse type, not to the category of tense.

2.2. The one-dimensional analysis of tense

2.2.1. The deictic dimension

In a one-dimensional analysis of tense, the past tense is assumed to express one relation, namely "past", with respect to the moment of utterance. I will refer to this dimension as *the deictic dimension* of the past tense. If we represent the situation by means of E and the point of speech by means of S, as has become customary at least since Reichenbach (1947), this analysis of the past tense can simply be represented as in (3) (in which E refers to the situation, S refers to the point of speech, and '<' expresses a temporal relation of precedence).

(2) E < S

The great attraction of this proposal (see, for instance, Comrie 1985) lies, of course, in its simplicity. A complication is constituted by the fact that the past tense sometimes expresses precedence with respect to another moment than S, see (3).

(3) He will say that he was sick.

In (3), the embedded past tense does not necessarily mean "past with respect to the moment of utterance" (S). It allows for another reading in which an additional vantage point S' is set up in the future and the embedded event is situated before this point in the future. It should be noted that, on this reading, the situation does not necessarily precede S at all, as is clear from (4).

(4) I have a feeling he won't be at the meeting tomorrow. When we see him again next week, he will probably say that he was sick.

This does not mean that the embedded past tense in (3), on the reading illustrated in (4), can no longer be analysed as one-dimensional, or deictic. Indeed, it is well-known from studies on deixis that the deictic centre, the origo, can shift (Bühler 1965). As long as we take S in (2) as abstracting over both types of deictic centre (S and S'), this example constitutes no problem for the one-dimensional analysis of the past tense.

I will refer to the use of the past tense as expressing precedence with respect to a shifted deictic centre (S') as *relative* use; if the past tense expresses precedence with respect to S, I will refer to this as an *absolute* use of the past tense. The notion of *relative* (use of) tense should obviously be distinguished from the anaphoric dimension that is, in my view, inherent to the semantics of imperfective aspect (1.3.2.1). Thus, the embedded past tense in (3) can be either absolute or relative (as in (4)); on either reading, the situation of being sick needs to be linked to an independently provided reference time, which in (4) is provided by the time of "tomorrow's meeting". The latter, anaphoric dimension is required by the semantics of imperfective aspect; if the embedded tense gets a perfective

reading, as in (5), it can be relative without in addition being anaphorically related to a previously mentioned or inferrable time.[1]

(5) He will say that he read that book.

As for the temporal interpretation of consecutive main clauses such as (6)a and (6)b (examples (1) and (2) from Chapter 1), if the one-dimensional analysis of tense is correct, then, obviously, the contribution of tense to the determination of temporal relations in these cases is non-existent as the past tense independently links each situation to the moment of utterance.

(6) a. John opened the door and walked to the bookcase.
b. John opened the door. It was pitch dark in the room.

Given a one-dimensional analysis, the two occurrences of the past tense, both in (6)a and (6)b, situate the two situations somewhere before the moment of utterance, and are thus semantically compatible with both a sequence reading, as in (6)a, and an overlap reading, as in (6)b (see, for instance, Adelaar & Lo Cascio 1986; Declerck 1991). At the level of tense, I believe this to be the correct analysis of both (6)a and (6)b. The fact that the situations in (6)a are coherently linked together into a narrative chain of events I assume to be a property of the narrative discourse type, not of the category of tense per se (see 2.3.2). The additional dimension of the imperfective in the second sentence of (6)b, presenting a situation holding at a point of perspective in the past (see 1.4.2 and Chapter 3), should be attributed to aspect rather than tense. I will turn to this second, anaphoric, dimension in 2.3; in the following section, I will concentrate on those cases where the deictic dimension of tense as such is often said to provide information on interclausal temporal ordering, namely in complement clauses of indirect speech.

2.2.2. Sequence of tenses

2.2.2.1. The relative analysis of past-under-past. Independently of the issue of how many parameters we need to describe the semantics of the past tense, sentences (3) and (5), repeated here as (7)a and (7)b, constitute clear examples of

[1] I assume that the English simple past gets a perfective reading in event clauses, but is standardly interpreted as imperfective in state clauses, see 1.5.2 (and Chapter 6 for a more elaborate treatment of this issue).

cases in which the deictic dimension of the past tense provides information on interclausal temporal ordering.

(7) a. He will say that he was sick.
b. He will say that he read that book.

An interesting, and much debated, issue is whether the analysis of the past-under-future in (7) as expressing precedence with respect to the time of the matrix can be carried over to past-under-past sentences such as in (8).[2]

(8) a. He said that he was sick.
b. He said that he read that book.

One of the readings of (8)a is one in which the state of being sick presented in the embedded clause precedes the event of saying presented in the matrix clause. This reading is usually treated on a par with the precedence reading of (8)b, which is in fact the only possible reading of such English sentences presenting an event in the embedded clause rather than a state as in (8)a (Costa 1972). The fact that the embedded situation in (one of the readings of) (8)a and (8)b precedes the event of the matrix might seem like a matter of tense. Just as, in (7), the deictic centre can be shifted into the future, it can be considered shifted into the past in (8). In this view, the temporal interpretation of (7) and (8) follows from the semantics of the past tense as given in (2), with the additional stipulation that in embedded structures it is the S' of the "reported speaker" which functions as the deictic centre for the interpretation of the embedded tense. In other words, the *structure* of the sentence imposes a *relative* reading (see previous subsection) on the embedded tense, irrespective of the tense occurring in the matrix clause.

If this were all the relative analysis of embedded tense had to say, then it would incorrectly predict that one could use an embedded present tense to express simultaneity in the past. If the time of the matrix situation truly functions as a shifted deictic centre for the interpretation of the embedded tense, then the embedded present tense in (9)a should express simultaneity with the matrix situation. Moreover, the embedded past tense in (9)b should be incompatible with such a simultaneity reading.

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[2] My discussion of sequence of tenses in this section focuses on English data; it should be noted that both English and Dutch are assumed to have a sequence of tenses rule (see for Dutch, for instance, Brondeel 1977 and Geerts et al. 1984). Dutch data will be introduced in the course of the discussion; a full contrastive account of Dutch and English complement clauses will be provided in 6.4.

(9) a. He said that she is sick.
b. He said that she was sick.

In actual fact, however, (9)b does allow for a simultaneity reading, and (9)a only allows for a so-called double access reading, in which Mary is sick both at S *and* S' (Enç 1987; Abusch 1994, 1997; Ogihara 1995). This is why a relative analysis of embedded tense makes it necessary to postulate a rule of sequence of tenses: on the simultaneity reading, the embedded tense is assumed to be a present tense, which, in languages such as English and Dutch, merely surfaces as a past tense as the result of a rule of sequence of tenses (SOT). Other languages, such as Russian (Barentsen 1996) and Japanese (Ogihara 1995), do not have such a rule, and, indeed, use a present tense in the embedded clause of sentences such as (9)b to express the simultaneity reading.

The SOT analysis of embedded tense has some attractive features. First, on any account the relative analysis of embedded tense is needed to explain instances of past-under-future, as in (7), so one might as well use the available mechanism of shifted deixis to account for past-under-past as well; doing so results in an attractively symmetrical account of past-under-past and past-under-future. Second, if one does not accept that the embedded past tense in (8)b is at least compatible with a relative reading, then one needs quite some additional reasoning to explain why this sentence cannot receive either a simultaneity or a forward-shifted reading (see 2.2.2.3 and 2.2.2.4, respectively), whereas in the relative analysis the precedence reading falls out automatically. Third, given that there are languages that actually do use a present tense to express simultaneity in the past, making a distinction between SOT-languages, such as English and Dutch, and non-SOT languages, such as Russian and Japanese, is attractive from the viewpoint of typological adequacy as well. Despite these obvious advantages of the relative analysis, I will, in the following section, argue in favour of an absolute analysis of past-under-past in English and Dutch.

2.2.2.2. An absolute analysis of past-under-past. In my view, the embedded past tense in (8)a and (8)b, repeated below for convenience, expresses past with respect to S rather than with respect to S' (see also Brecht 1974; Heny 1982; Salkie & Reed 1997).[3] The fact that the situation presented in the embedded

[3] Abusch (1997) spends a lot of time arguing in favour of an absolute analysis of embedded tense but eventually rejects it on the basis of data that I will discuss in 2.2.2.4. Declerck (1991) maintains an absolute analysis for (8)b, but not for (8)a. On the simultaneity reading, he labels the past tense as a relative past tense expressing simultaneity in the past. In my view, the simultaneity reading follows from the semantics of imperfective aspect and is independent of tense and syntactic subordination.

clause may also end up before the event of the matrix clause (S'), I consider to be a matter of aspect (2.2.2.3) and pragmatic inference (2.2.2.4).

(8) a. He said that he was sick.
b. He said that he read that book.

Given that there are important advantages to the relative analysis - most importantly, it offers a straightforward explanation for the precedence reading of the sentences in (8) - we need strong arguments in favour of an absolute analysis of past-under-past. I will provide six such arguments.

1. The crucial argument in favour of an absolute analysis of embedded past tenses is that it makes the postulation of a formal device such as sequence of tenses redundant.

As was already mentioned above, the relative analysis of the sentences in (8) makes it difficult to explain the simultaneous reading that is allowed for by (8)a. On this reading, the embedded past tense cannot possibly mean past with respect to the event of saying presented in the matrix. Thus, if one accepts the past-of-past explanation for the precedence reading, then one is forced to accept a rule like sequence of tenses to account for the simultaneous reading (see, for instance, Comrie 1986a for English; Geerts et al. 1984: 477 for Dutch). A major drawback of such an analysis is that it means giving up on a unified semantic description of the past tense in Dutch and English (cf. Stowell 1993). In all SOT-type accounts, the past tense sometimes means "past" and sometimes means something else (Abusch 1997; Declerck 1991), namely "present" or "simultaneity in the past", or, alternatively, is considered to be semantically empty on the latter reading (Ogihara 1995 offers the most recent defense of the latter position). An absolute analysis of embedded tense (Salkie & Reed 1997) has the obvious advantage that one can maintain the claim that past tense always means "past": on the simultaneity reading of (8)a, the embedded past tense may not mean past with respect to S', but it still means past with respect to S.[4]

In the previous subsection, it was mentioned as one of the advantages of an SOT account that it allows for a unified description of past-under-past, as in (8)b, and past-under-future, as in (7)b; the absolute analysis of past-under-past cannot be generalized to include past-under-future as in the latter case the past tense does

[4] An alternative way of saving a unified semantic description of the past tense is to say that the past tense *never* means past (Stowell 1993, 1995a, 1995b).

not necessarily mean past with respect to S. Still, such a discrepancy between past and future contexts is in accordance with the facts: in English and Dutch, tenses embedded under a future allow for a relative interpretation, whereas tenses embedded under a past do not. Thus, the embedded present tense in (10)a expresses simultaneity with respect to S', the embedded future in (10)b expresses future with respect to S', and the embedded past in (10)c expresses past with respect to S'.

(10) a. He will say that he is reading that book.
b. He will say that he will read that book.
c. He will say that he read that book.

For the interpretation of tenses embedded under a past tense such a mechanism of shifted deixis is not available in English (and Dutch): the embedded present tense in (11)a expresses that the activity is going on at S (not just at S') and the embedded future in (11)b situates the event in the future with respect to S (not just S').

(11) a. He said that he is reading that book.
b. He said that he will read that book.
c. He said that he read that book.

The only observation that is in accordance with a relative analysis is that the situation presented by means of an embedded past tense in (11)c does end up before S'. However, this only works for an embedded perfective past, and, moreover, an alternative explanation for this effect is available (see below).

In a similar vein, the fact that there are other languages that do use an embedded present tense on the simultaneity reading does not force us to accept a relative analysis of embedded tense in all contexts and in all languages, including Dutch and English. The SOT account says that tense in complement clauses receives a relative interpretation and that languages differ in whether or not they have a sequence of tenses rule. My account says that languages differ in whether they use absolute or relative tense in complement clauses; in addition, the choice between absolute and relative tense may vary according to (a) the tense of the matrix clause, and (b) the lexical content of the embedding verb. An illustration of the first factor is provided by English and Dutch, which use relative tense under a future but not under a past (see (10) vs. (11)). An example of the second factor is provided by Russian. This language uses relative tense after verbs of saying, which is the basis for saying that Russian lacks sequence of tenses.

However, after verbs of seeing, Russian often uses absolute rather than relative tense (Barentsen 1996).

Thus, the fact that English and Dutch use a past tense in complement clauses to express simultaneity in the past is often considered evidence for the claim that English and Dutch have a SOT rule, but I take that very fact as an indication that Dutch and English use absolute tense in clauses embedded under a past tense; the same conclusion was already drawn in an illuminating paper by Brecht (1974), who, in the following quotation, uses the term *exophoric* for what I call *absolute*:

> [...] the so-called SofT rule can be viewed as the condition in English that ALL embedded tenses are exophoric [...]. Viewed in this way, the SofT rule is a convention whereby embedded tenses are all defined from the point of view of the speaker. (Brecht 1974: 500)

2. The distinction between precedence readings and simultaneity readings of complement clauses is systematically related to grammatical aspect but this relationship is blurred in (existing) SOT accounts (cf. De Swart's 1997 criticism of Ogihara 1995).

On the SOT account of embedded tense, the embedded past tense is, semantically, a real past tense only on the precedence reading. On the simultaneity reading, the past tense is considered to be, semantically, a present tense that has been "transposed" or "backshifted" into a past tense as the result of an SOT rule. It remains unexplained within such an approach that, for instance, in English only embedded states and progressives allow for simultaneity readings, whereas embedded events do not. Indeed, why would the past tense necessarily be interpreted as a real past tense if it presents an event, but allow for a kind of dummy interpretation if it presents a state?

The fact that events do not allow for inclusion readings whereas states do is a general feature of English discourse that is not restricted to complement clauses. Thus, it does not seem necessary to postulate such an ingenious mechanism to account for the simultaneity reading of complement clauses; the category of imperfective past - progressives (Chapter 5) and most states (Chapter 6) also get an imperfective reading in English - always expresses simultaneity with an independently provided reference time. In my absolute analysis of past-under-past, the availability of simultaneity readings for states and progressives and the lack thereof for events follows from the aspectual interpretation of the simple past tense, and its interaction with Aktionsart, and is independent of either tense or syntactic environment (see 2.2.2.3).

3. Analyzing the embedded past tense in (8)b, repeated here as (12)a, as expressing precedence with respect to the event of the matrix seems to make

(12)a semantically equivalent to (12)b, containing a past perfect in the embedded clause.

(12) a. He said that he read that book.
b. He said that he had read that book.

In (12)b, the reading of the book is ordered prior to the event of saying in the matrix; the event is presented from the perspective of S' rather than from the perspective of S. If we claim that the embedded past tense in (12)a is equally interpreted as past relative to S', then we lose what would be a rather straightforward explanation for the difference between (12)a and (12)b (Declerck 1991; Castelnovo & Vogel 1995). In other words, there is a linguistic form which expresses precedence in the past and this form is not the simple past, but the past perfect.

It might be argued that this is not a valid counterargument to the relative analysis on the following grounds. As I will claim in Chapter 4, the past perfect expresses something more than just precedence with respect to a point in the past. In particular, the auxiliary of the past perfect presents an imperfective state holding at an independently provided point of reference in the past. The situation presented by means of the past participle is ordered with respect to the state presented by the auxiliary, and only indirectly with respect to events presented in the surrounding discourse, such as the event of saying in the matrix clause of (12)b. If this analysis is correct, then the fact that the embedded event ends up before S' in both (the relative analysis of) (12)a and (12)b does *not* make them semantically equivalent. The past perfect, in this analysis, is treated as the past equivalent of the present perfect, and the fact that the simple past and the present perfect both locate an event in the past does not make these semantically equivalent either.

This seems to make my third counterargument to the relative analysis invalid. However, this truly compositional analysis of the (present and past) perfect construction can deal with only one of two possible readings of the past perfect in English, which is known as the *perfect in the past* reading. An example is given in (13)a.

(13) a. John told me that he had entered the bank.
b. I have (now) entered the bank.

A possible reading of (13)a is one in which John reported on his whereabouts while in the bank. In this reading the result state of entering the bank is simultaneous with S', which automatically orders the entering of the bank before

S'. As John's actual utterance could have been the one in (13)b, this reading of the past perfect in (13)a can be characterized as a perfect in the past. However, the past perfect in (13)a allows for a *past in the past* reading as well. This is demonstrated in (14)a.

(14) a. John told me that he had entered the bank and then had left again carrying a suitcase filled with 1000 guilder notes.
b. ? I have entered the bank and then I have left again carrying a suitcase filled with 1000 guilder notes.
c. I entered the bank and then I left again carrying a suitcase full of 1000 guilder notes.

In (14)a, John's report about his entering of the bank is made after he left the bank again. Thus, the result state of entering the bank, i.e. being in the bank, is not holding at S'. This reading of the past perfect is not the past equivalent of the present perfect in (14)b, but rather of the simple past in (14)c. In fact, the English present perfect does not allow for a reading in which the result state is no longer valid at S; for this reason, the two occurrences of the present perfect in (14)b are semantically incompatible. The English past perfect, therefore, cannot be treated in all cases as the past equivalent of the present perfect. The past-in-the-past reading is available for an embedded past perfect as well and it is hard to distinguish this reading of (12)b from the relative reading that is, according to the relative analysis, available for (12)a. In fact, these are often considered to be semantically equivalent, the use of the past perfect being regarded as optional in English (Partee 1984; Comrie 1986a).

There are strong indications, however, that an embedded past perfect receives an interpretation different from an embedded simple past; this difference corresponds to the difference between relative and absolute temporal reference. I will argue in Chapter 6 that sentences such as (12)a, containing a simple past in the complement clause, can only be used in non-narrative discourse, in which situations are independently linked to the point of speech, that is, in this case, to the here-and-now of the reporting speaker (S). In these circumstances, using a past perfect in the embedded clauses in fact results in an infelicitous utterance, see (15).

(15) A: Is Mary around?
B: Sorry, no, John told me that she left/has left/?had left.

The crucial information that speaker B wants to convey to speaker A is that Mary is not around at the moment of utterance because *at some point before the moment*

of utterance she left. The fact that speaker B learned this from John, and that Mary's leaving occurred somewhere before John's utterance, is of secondary importance at best. Using a past perfect in the embedded clause presents the situation of Mary leaving from the perspective of John and this is incompatible with the sense of relevance *for the present moment* implied by A's question. The fact that a simple past is appropriate in (15)b shows that the simple past does allow for such an absolute reading and that this is what constitutes the difference between simple past and past perfect.

4. Adverbials such as *yesterday* are often called "deictic" as they can only be anchored to the speech time (S), and yet they are compatible with a simple past tense form in the embedded clause, as is illustrated in (16).[5]

(16) John told me that his wife left him yesterday.

Still, an embedded simple past is also compatible with an "anaphoric" temporal adverbial such as *two days before* in (17), which makes the relative ordering of the situations explicit.

(17) John told me that his wife left him two days before.

As such, the behaviour of temporal adverbials might, therefore, just as well be taken as an argument in favour of the relative analysis of past-under-past. In addition, one might say that in (16) the absolute interpretation of the past tense is forced by the presence of the deictic adverbial. Let us therefore consider the interpretation of *just*, which allows both "deictic" and "anaphoric" readings (or rather, in my terminology, absolute and relative readings).[6]

(18) a. John told me that she just left.
b. John told me that she had just left.

In (18)a, *just* can only be taken to mean "a short time before the moment of utterance (S)". Contrary to (16), this absolute interpretation cannot be forced by

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[5] It should be noted that the use of the terms *deictic* and *anaphoric* to distinguish between different kinds of temporal adverbials is rather different from my own use of these terms; in my terminology, they would be more accurately characterized as *absolute* and *relative* adverbials, respectively.

[6] This argument was suggested by Tim Stowell in his Utrecht lectures (September 1995). The sentence in (18)a, incidentally, strikes speakers of British English as typically American English as British speakers would have to use a present perfect here.

the meaning of *just* alone, as in (18)b *just* can be interpreted as "a short time before the time that John told me about it (S')". The only way to explain the interpretation of (18)a is to treat the simple past as an absolute tense that independently links the event of leaving to the moment of utterance S.

5. In the previous subsection, it was mentioned as an important advantage of the relative analysis of past-under-past that it offers a straightforward explanation for the precedence reading of English sentences presenting an event in the embedded clause such as (8)a, repeated here as (19).

(19) He told me that he read that book.

Contrastive analysis with Dutch provides us with a further argument in favour of an absolute analysis of the embedded past tense in precisely this kind of sentence.

If a speaker of Dutch wants to present a past situation as linked to the moment of utterance (S) independently of other situations from the past, he should use a present perfect to do so, as in (20) (see Chapter 4).

(20)	Hij	vertelde	me	dat	hij	dat boek	gelezen	heeft.
	he	told	me	that	he	that book	read	has

'He told me that he has read that book.'/'He told me that he read that book.'

The present perfect clearly links a past situation to the moment of utterance (S); the finite verb form presents a state holding at the present moment. And yet, the situation of reading the book in (20) can only be understood to precede the event of telling in the matrix (S'), just as in English (19). Now I do not believe that on the basis of this observation anyone would want to argue for (20) that the embedded present perfect no longer expresses any relation with S, but instead expresses past with respect to S'. Thus, the fact that the reading of the book in (19) can only precede the time of the matrix clause should not necessarily lead to a relative analysis either.

If a speaker of English wants to present a past situation as independently linked to the moment of utterance, he can, of course, also use a present perfect in the embedded clause, as in (21)a.

(21) a. He told me that he has read that book.
b. He told me that he read that book.

The problem is that the use of the present perfect in English is much more restricted than in Dutch (Chapter 4), so that English speakers often have no other

option than to use the simple past tense, as in (21)b, on the absolute "reporting strategy" (cf. section 6.4.2). It should be noted that if we accept the relative analysis as the only possible analysis of (21)b, this implies that reporting speakers in English, as opposed to those in Dutch, very often do not have the possibility at all of presenting a situation from their own perspective rather than from the perspective of the reported speaker. In my view, the simple past tense in the embedded clause of (21)b is precisely the form that enables English speakers to do this and it should, accordingly, be rendered by a present perfect in Dutch, as in (20) (see Chapter 4 and section 6.4 for a more detailed analysis of this point).[7] The equivalence of an absolute simple past in English and a Dutch present perfect can be illustrated by (22).

(22) a. I spoke to Professor Loyen. He told me *that you came in to see him*. (Peter Høeg, *Smilla's sense of snow*, p.44)
b. Ik heb met professor Loyen gesproken. Hij vertelde me *dat u bij hem op bezoek bent geweest*. (Peter Høeg, *Smilla's gevoel voor sneeuw*, p.40)

The fact that the situation of reading the book in (21), and the visit to Professor Loyen in (22) not only precedes S, but *also* precedes S', is part of a much more general phenomenon, which has been called "double access" by Enç (1987). This notion has usually been restricted to the characterization of the specific interpretation of *present*-under-past as in (23).

(23) John told me that his wife is pregnant.

The sentence in (23) implies that John's wife was already pregnant when he told me about it and still is at the present moment. The perfect-under-past in (20), (21)a and (22) likewise presents a state, as expressed by the finite verb form, holding at both S and S'. Thus, an interpretation of the tense in the embedded clause as related to S does not exclude the possibility that there is *also* a similar connection between the embedded situation and S'. Therefore, the fact that the situation in the embedded clause of (21)b can only be understood as preceding the event of the matrix is hardly a convincing argument against the analysis of the past tense that I am arguing for. For (23), a large number of linguists accept that the embedded present tense in (23) *only* expresses simultaneity with respect to S,

[7] See also Declerck's test for identifying absolute past tense in English: "the Dutch present perfect can replace the [English] past tense only when the latter is an absolute tense" (1991: 102, fn.115).

leaving the ordering with respect to S' to be determined by pragmatics (Rigter 1988; Hornstein 1990). I believe this analysis of (23) to be correct, but I also believe that the same mechanism should be held responsible for the precedence reading of (21)b. This mechanism has been formulated as *the fact/prediction principle* by Cutrer (1994) and is arguably a matter of pragmatic incompatibility (see 2.2.2.4).

6. The most obvious counterargument to postulating sequence of tenses as a rule is that there are many exceptions to it. Thus, an underlying present tense does not automatically backshift into a past tense, as was clear from examples (20) and (23), repeated here as (24)a and (24)b.

(24) a. Hij vertelde me dat hij dat boek gelezen heeft.
he told me that he that book read has
'He told me that he has read that book.'/'He told me that he read that book.'

b. John told me that his wife is pregnant.

This has, of course, been recognized in most studies dealing with sequence of tenses and none of the present-day accounts of tense in complement clauses thinks of SOT as an automatic rule to be triggered by a past tense in a complement clause, as indeed it very clearly is not. However, if one starts off from a relative analysis of embedded tense, then the fact that, for instance, John's wife is supposed to be pregnant both at S and at S' in order for (24)b to be felicitous, is problematic. One cannot at the same time maintain a relative analysis of embedded tense and say that the embedded present tense in (24)b is an absolute present tense. If one accepts the latter claim, this boils down to saying that the structure of the sentence does not as such impose a relative reading on the embedded tense and it becomes unclear then why one would not allow for an absolute reading for the embedded past in (21)b as well.

For an absolute analysis of embedded tense, the existence of sentences such as those in (24) obviously does not constitute a problem: tenses embedded under a past tense receive their standard, i.e. absolute, interpretation in English and Dutch and this is true for both the past tense and the present tense. However, this cannot be the whole story. As Stowell (1993) remarks, the double access reading is really the sum of the relative and the absolute construals. Within a relative analysis, it is difficult to explain why the situation must *still* be holding at S; within an absolute analysis, it remains to be explained why the situation must *already* have been holding at S'. In my view, the sentence in (24)b is semantically compatible with a reading in which John's wife is pregnant at S but was not pregnant yet when John

told me about it, but this reading is ruled out by pragmatic incompatibility (see 2.2.2.4).

2.2.2.3. The lack of a simultaneity reading. There are some important restrictions on the possible temporal orderings between the matrix situation and the situation in the embedded clause that cannot be explained by my absolute analyis of the embedded past tense. If the embedded past tense only expresses precedence with respect to S (rather than S'), then it should be possible, in principle, that the situation in the complement clause is understood to precede S', to be simultaneous with S', or even to follow S' (as long as it precedes S). All three possible interpretations are, clearly, compatible with the semantics of the past tense, which, in my view, only expresses the deictic dimension of precedence with respect to S. However, in English, an event in a complement clause cannot be interpreted as holding at the time of the matrix clause; in addition, the deictic dimension of an embedded past tense does not allow for a reading in which the situation ends up after the situation of the matrix clause (i.e. the so-called forward shifted reading, see next subsection). Given my absolute analysis of the embedded past tense, neither of these restrictions can be explained as a matter of tense, as they would be in the relative analysis. In the absence of an alternative explanation, the cost of maintaining a unified analysis for the past tense might thus seem to be rather high. I will therefore suggest alternative explanations for both restrictions.

The lack of a simultaneous reading for embedded events in English is not surprising given the fact that the simple tenses of English are perfective in event clauses. The expression of imperfective aspect with events has grammaticalized into an obligatory use of the progressive verb form. As a consequence of "grammaticalization of zero" (1.5.1 and Chapter 6), the simple tense cannot be used to present an event holding at a time of reference but, instead, is necessarily interpreted as perfective. This applies irrespective of the syntactic environment the simple tense occurs in. If we rule out the simultaneity reading of eventive complement clauses in English on the basis of aspect, this provides us with a unified explanation for the lack of a simultaneous reading in (25)a-f.

(25) a. He said that he wrote a letter.
b. He met the guy who wrote the letter.
c. At 8 o'clock he wrote a letter.
d. When I came in, he wrote a letter.
e. I came in the room. He wrote a letter.
f. ? He writes a letter.

Just as, in (25)a, the writing of the letter cannot be interpreted as going on at the time of speaking presented in the matrix, in (25)b the writing presented in the relative clause cannot be simultaneous with the meeting presented in the main clause. In (25)c and (25)d, the writing of the letter cannot be interpreted as going on at 8 o'clock or at the time of my entrance, respectively. As shown in (25)e, a similar restriction holds for the interpretation of consecutive main clauses. (25)f illustrates the well-known fact that the simple present in English cannot be used to present events that are going on at the time of utterance either, unless the event is given a habitual interpretation which results in an imperfective reading (see Chapter 5).[8] If the lack of a simultaneous reading in (25)b-f can be uniformly explained as following from the perfective nature of the simple past when it presents an event, then there is no need to treat this particular restriction on the temporal interpretation of (25)a any differently. That the restrictions on (25)a-f are related, and, moreover, a matter of grammatical aspect is confirmed (a) by the fact that the simultaneous reading does arise in all these cases if the event clauses are substituted by clauses presenting a state or containing a progressive verb form, and, (b) by the fact that Dutch event clauses, whether embedded or not, do allow for inclusion readings.

In the absence of clues to the contrary, the English simple past receives an imperfective reading if it presents a state (see 5.5.3.1 on standard aspect choice). Thus, given the semantics of imperfective aspect (1.3.2.1), the state must be linked to an independently provided reference time. If the event of John's telling in the matrix clause of (26) is taken as the antecedent of the embedded imperfective, this results, of course, in a simultaneous reading.

(26) John told us Mary was ill.

In my view, the so-called backshifted reading of (26) should be treated on a par with the simultaneous reading of the same sentence, rather than on a par with the backshifted reading of embedded eventive clauses such as (25)a, as the traditional SOT account would have it. If we assume that imperfectives always need to be anchored to a contextually given time, then the simultaneous reading can be analysed as one in which the event of the embedded clause is anaphorically related to the event of the matrix-clause; in the backshifted reading, it is anaphorically related to a situation presented earlier in the discourse. For instance,

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[8] When embedded, the latter, of course, likewise allows for a simultaneous reading: *he told me that every Sunday night he wrote a letter to his girlfriend*.

the situation in the italicized clause of (27) is anaphorically linked to the time of the crime which was introduced into the discourse a few sentences earlier.[9]

(27) The defendant was actually at home watching "The Simpsons" at the time of the crime. But after hearing the testimony of the first eye-witness, the jurors clearly believed *that he was in the laboratory building*. (Abusch 1997)

On most SOT accounts, the past tense would be treated as a real past tense on the precedence reading, which is exemplified in (27), and as an underlying present tense on the simultaneity reading. In my view, there is no more need to treat the embedded past tense in the simultaneous reading as semantically empty than there is in the so-called backshifted reading exemplified in (27); in both instances, the past tense expresses past with respect to S.

As my analysis of imperfective aspect in English predicts, progressives, whether embedded or not, allow for the same range of temporal interpretations as states do. Progressives are treated in this thesis as covering a subdomain of imperfective aspect (Chapter 5) and, therefore, the situation they present has to be linked to an independently provided reference time. This may result in a simultaneity reading for (28).

(28) John told me Mary was reading a book.

Alternatively, just as in (27), the embedded imperfective can also be linked to a point in time other than the time at which the matrix event took place; see (29).

(29) "The motor must've been still running when they got to him."
"Yes, I think *somebody said it was*."
(Patricia Highsmith, *The boy who followed Ripley*, p. 67)

In (29), *it was (running)* is co-temporal with the progressive in the previous clause that takes its reference time from the temporal clause *when they got to him*.[10]

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[9] Abusch (1997) presents this example as an illustration of an "independent", i.e. absolute, analysis of embedded tense, but she does not comment on the fact that this anaphoric analysis of the back-shifted reading works exclusively for embedded imperfectives, i.e., in English, states and progressives.

[10] It is clear from the context that /say/ and /was/ cannot be simultaneous as the reporting speaker, the "I" of the second utterance, was not present at the discovery of the accident.

Unlike the English simple past the Dutch unmarked past tense does allow for imperfective readings when the clause presents an event - particularly so in non-narrative discourse (1.5.3.1 and Chapter 6) - and, therefore, it does allow for inclusion readings. Again, this is true in all syntactic environments, including complement clauses; the latter case is demonstrated in (30), where the sentence following the (italicized) event clause makes clear that such an inclusion reading is intended.

(30) Dat vertelde hij, die jonge schrijver dus, aan iedereen: *dat hij een roman schreef*. Toen ging hij dood, die jonge Franse schrijver, maar uit niets bleek dat hij met een boek of roman bezig was. (Gerard Reve, *Het boek van violet en dood*, p. 61).
'That is what he, that young writer, told everyone: that he was writing a novel. Then he died, that young French writer, but nothing proved that he was working on a book or a novel.'

As predicted by my analysis of the aspectual interpretation of the Dutch unmarked past, the Dutch sentences in (31)a-e, unlike their English equivalents in (25), all allow for inclusion readings.

(31)
a.	Hij	zei	dat	hij	een brief	schreef.			
	he	said	that	he	a	letter	wrote		
b.	Hij	ontmoette		de jongen		die	een brief	schreef.	
	he	met		the boy		who	a letter		wrote
c.	Om 8 uur		schreef	hij	een brief.				
	at 8 o'clock		wrote	he	a letter				
d.	Toen	ik	binnenkwam,		schreef	hij	een brief.		
	when	I	entered		wrote	he	a letter		
e.	Ik	kwam binnen.		Hij	schreef	een brief.			
	I	entered		he	wrote	a letter			
f.	Hij	schrijft	een brief.						
	He	writes	a letter						

Thus, the lack of a simultaneity reading for eventive complement clauses in English should be ascribed to aspect rather than tense and is independent of syntactic environment.

2.2.2.4. The lack of a forward shifted reading. If we assume that the embedded past tense in (25)a, repeated here as (32), is an absolute perfective past tense, then

this boils down to saying that it expresses a situation that is viewed as bounded (perfective aspect) and occurring before S (absolute past).

(32) He said that he read that book.

The perfective analysis rules out the simultaneous reading (see previous subsection), but it still does not follow that the situation in the embedded clause of (32) has to be bounded *before S'*. A reading in which the reading of the book took place *after S'* but before S, a so-called forward-shifted reading, is semantically compatible with an absolute analysis of the embedded past tense and yet this reading is not possible.

The same restriction holds for embedded imperfectives as in (26) and (28); they can be anaphorically linked to the time of the matrix clause, or to a time preceding the time of the matrix clause (see (27) and (29)) but not to a reference time *following* the time of the matrix clause. The problem is also the same as that noted for the embedded present perfect in the Dutch sentence (20), repeated here as (33).

(33)

Hij	vertelde	me	dat	hij	dat boek	gelezen	heeft.
he	told	me	that	he	that book	read	has

'He told me that he has read that book.'/'He told me that he read that book.'

Just as in (32), in (33) the reading of the book is interpreted as preceding the time of the matrix situation, but this is not expressed by the embedded present perfect. Put differently, the absolute analysis of embedded tense cannot explain why the sentences in (34) do not constitute coherent utterances.

(34) a. ? He told me two years ago that she wrote a book last year.
b. ? Hij vertelde me twee jaar geleden dat ze vorig jaar een boek geschreven heeft.
'He told me two years ago that she wrote (lit. has written) a book last year.'

It might seem like a possible solution to say that there is a linguistic means available to the speaker to express the forward shifted reading, namely the future-in-the-past, as illustrated in (35).

(35) a. He said that he would write a letter.

b. Hij zei dat hij een brief zou schrijven
he said that he a letter would write
'He said that he would write a letter.'

However, (35)a and (35)b are interpreted in a way that is subtly different from the forward-shifted reading that should exist according to the absolute analysis. In particular, the future in the past expresses posteriority with respect to S', but it does not convey anything about the relation between the situation and S.[11] This is most clearly illustrated by the fact that (35)a and (35)b allow every possible ordering between E and S. Thus, E may precede S (as long as it is posterior to S'), E may be simultaneous with S, or E may even follow S (*he told me yesterday that he would write a letter to his mother next week*). This reading is clearly different from the absolute reading of the past tense in (34)a and the present perfect in (34)b. The latter situate an event in the past of S and is not supposed to convey anything about the temporal ordering of the situation in the embedded clause and S'.

Then why do the sentences in (34) not allow for a reading in which the situation in the embedded clause is temporally situated after the situation in the matrix clause? Even on an absolute account of embedded tense, it is important to take into account the fact that the matrix clause of indirect speech reports does not present just any kind of situation, but presents an event of speaking, thinking or believing which took place at a point in time that can be characterized as a deictic centre; indeed, that is why I have been referring to it as a (shifted) point of speech (S'). In indirect speech, the reporting speaker presents a belief which is held by another speaker at that earlier time (S'). By choosing such a strategy, the reporting speaker commits himself to giving a truthful report of the reported speaker's belief. Now, he does have some freedom in this respect, especially when compared to the other reporting strategy that he could have chosen, namely that of direct quotation. The difference between direct and indirect speech - at least, in English and Dutch and when reporting a past utterance - precisely consists of the fact that in indirect speech the reporting speaker takes his own vantage point (S) rather than that of the reported speaker (S') as the deictic centre

[11] Some embedded imperfectives allow for a reading similar to the one demonstrated in (35), see English (i) *He told me that his wife was leaving (later that day)* and Dutch (ii) *Hij vertelde me dat zijn vrouw (later die dag) wegging* (lit. he told me that his wife later that day left). Such examples do not count as forward shifted readings for the same reason that the sentences in (35) do not. Interestingly, the futurate reading of (i) and (ii) cannot be ascribed to imperfective aspect per se, because states, that are usually imperfective, do not easily allow for it. The relationship between tense/aspect and future, or rather, more generally, modal interpretations will be mentioned in this thesis only as a suggested topic for future research (Chapter 7, section 7.5).

relative to which deictic elements are interpreted; in my view, this includes the interpretation of the present and past tense in the sentences in (36).

(36) a. He told me that she is pregnant.
b. He said that he wrote a letter.
c. Hij zei dat hij een brief geschreven heeft.
he said that he a letter written has
'He said that he has written a letter.'/ 'He said that he wrote a letter.'

However, as argued by Cutrer (1994), this is possible only as long as the information reported has the same *fact/prediction status* at the point of speech of the reporting speaker (S) and at that of the reported speaker (S'). The present tense in (36)a, the simple past tense in (36)b, and the present perfect in (36)c present it as a *fact* that a certain state holds at S (in (36)a and (36)b), or that a certain event happened before S ((36)b). If these sentences are used to report (a report about) states or events that were already a fact either at or before S', then, in the terminology used by Cutrer, there is no *fact/prediction conflict* and the sentences in (36)a-c count as truthful belief reports. This is the case if the pregnancy in (36)a and the result state of writing a letter in (36)c were already holding at S' and if the writing of the letter in (36)b was already completed before S'.

If, however, the reported speaker made a *prediction* about a situation E_i in the future of S', then the reporting speaker can no longer use one of the absolute tenses in (36) to report that prediction, even if he himself by now has evidence for the fact that, somewhere between S' and S, situation E_i did in fact happen. The reason is that in this case a fact/prediction conflict arises and a fact/prediction conflict always gets resolved in favour of the reported speaker. This is a consequence of the fact that the reporting speaker chose the form of indirect speech to report someone else's belief and thereby committed himself to giving a truthful belief report. In other words, he cannot make the reported speaker responsible for the claim that something happened when all the latter did was to make a prediction about what was the future for him (cf. Heny 1982: 619, Declerck 1991: 184, Salkie & Reed 1997: 327-328). Thus, a forward-shifted reading is semantically compatible with (36)b but is ruled out by pragmatic incompatibility.

A pragmatic mechanism such as the one sketched here should be held responsible both for the lack of a forward shifted reading in (36)b and for the double access phenomenon illustrated in (36)a and (36)c (cf. 2.2.2.2), where the embedded present tense is interpreted as present with respect to both S and S'. In

fact, my analysis of (36)b can be equally characterized as a double access analysis: the embedded past tense is interpreted as past both with respect to S and with respect to S'. It should be noted, however, that unlike other authors who use the term *double access* (Enç 1987; Abusch 1994, 1997; Stowell 1993, 1995a, 1995b; Ogihara 1995; Vogel 1997; Landeweerd 1998), I do not consider the "access" to S' to be either determined by the semantics of tense or imposed by the syntax of these sentences.

To conclude, the restrictions on the temporal interpretation of indirect speech can be explained as a matter of (a) aspect, and (b) pragmatic compatibility and, therefore, do not constitute a problem for my absolute analysis of tenses embedded under a past tense in English and Dutch.[12]

2.3. The two-dimensional analysis of tense

2.3.1. The anaphoric dimension

According to the two-dimensional analysis of the past tense, a clause which presents a situation by means of a past tense does not just mean that the situation occurred (at *some* time t) before the moment of utterance, as in the one-dimensional analysis presented above (see, in particular, 2.2.1), but rather that it occurred at *a contextually salient*, definite time t. Within this approach, which essentially goes back to Reichenbach (1947), past tense morphology indicates, in addition to "past with respect to the moment of utterance" (*the deictic dimension*), the fact that the situation is co-temporal with a time provided by the context. I will refer to the latter dimension as *the anaphoric dimension*.

This additional time in the past can be identified with Reichenbach's (1947) point of reference (R), "a contextually provided interval which is salient at a certain point in the discourse" (Ogihara 1992: 16).[13] Reichenbach represented

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[12] Potentially more problematic for an absolute analysis of embedded tense are instances such as the last past tense in (i) *John decided a week ago that in ten days at breakfast he would say to this mother that they were having their last meal together* (Abusch 1994: 2). It can be computed from the temporal adverbials in this sentence that, on one possible reading, the situation referred to in the most embedded clause will be taking place at a moment in time *after* the moment of utterance; thus, the past tense on *were* does not mean past with respect to S (absolute). It is my feeling that this use of the past tense can be treated as one of many non-temporal uses of this category, ranging from its use in politeness formulas to irrealis (as in (i)) (cf. fn. 11 and 26, see also 7.5).

[13] It should be noted that Ogihara, like many others before him, regards R as an *interval* rather than a *point* as Reichenbach did. In contrast to either approach, Janssen (1989 and later) argues that R should be thought of as a *situational frame* which is not a temporal notion at all.

the meaning of the simple past as coincidence of the point of event (E) with a point of reference, and as the point of reference preceding the point of speech (S). Thus, in a two-dimensional analysis, the meaning of the past tense is represented as in (37)a rather than as in (37)b (= (2)).

(37) a. E,R < S
b. E < S

It should be noted right away that the representation that the two-dimensional analysis of tense provides for the meaning of the past tense equals my analysis of *imperfective* past as first given in 1.3.2.1. (The representation in (37)b, on the other hand, is in my view sufficient to account for *perfective* past.) However, the idea that the simple past tense has an anaphoric dimension has been used in the literature to explain two uses of the past tense in English and in Dutch that are supposed to be independent of aspect. These are:

I. The use of the past tense in non-narrative discourse to present a definite situation from the past (2.3.2).
II. The use of the past tense in narrative discourse to present a coherent sequence of events from the past (2.3.3).

It has been argued within the two-dimensional approach that these phenomena are related in the sense that they can both be ascribed to the anaphoric nature of the past tense. However, I will argue that I and II present qualitatively different phenomena, neither of which should be ascribed to a semantic feature of the past tense. In 2.3.4, I will further substantiate my claim that it is useful to restrict the notion of temporal anaphora to:

III. The linkage to an independently provided reference time as required for the use and interpretation of imperfectives (2.3.4).

2.3.2. The anaphoric dimension in non-narrative discourse

The most often quoted example of the "anaphoric" use of the English simple past in non-narrative discourse is given in (38).[14]

[14] In her 1973 paper Partee uses the terms *deictic* and *anaphoric* to refer to the distinction between extra-linguistic and linguistic antecedent times, respectively. This use of the terms deictic/anaphoric is clearly different from my own use. The general tendency in Partee's 1984 paper, as in this thesis, is to treat both cases as anaphoric: "the past tense can be viewed as an anaphoric element inasmuch as it is not understood as meaning 'at some time in the past', but as referring to some relatively definite past time, the

(38) I didn't turn off the stove. (Partee 1973)

If the one-dimensional analysis of the past tense as given in (37)b were correct, then (38) could be taken to mean that there was never any moment before S at which the speaker turned off the stove. However, in (38) the speaker clearly is not talking about all past times at which he did not turn off the stove, but rather about "a definite interval whose identity is generally clear from the extra-linguistic context" (Partee 1973: 602). Before Partee, McCawley had already pointed out that a sentence containing a past tense "is odd, unless the prior context provides a time for the past tense to refer to" (1971: 110). Janssen (1993: 760-61) suggests a similar requirement for the use of the Dutch past tense in (39)a, as opposed to the perfect in (39)b (cf. for Dutch also Vet 1987).

(39) a. Er was zojuist iemand voor je aan de deur.
there was just now someone for you at the door
'There was someone at the door for you just a minute ago.'

b. Er is zojuist iemand voor je aan de deur geweest.
there is just now someone for you at the door been
'There was someone at the door for you just a minute ago.'

(39)a is appropriate only if, for instance, both speaker and addressee heard the doorbell ringing or if they have some other relevant time-span in mind; (39)b requires no such antecedent and can be used to present all-new information.

If it is true that both the English and the Dutch past tense are inherently two-dimensional, or anaphoric, then it needs to be explained why the example in (38), which is so often cited to illustrate exactly the anaphoric nature of tense interpretation, cannot be rendered in Dutch by an unmarked past such as in (40)a.

(40) a. Ik draaide het gas niet uit.
I turned the gas not off

b. Ik heb het gas niet uitgedraaid.
I have the gas not turned-off

At least, in the non-narrative context provided for (38) by Partee - "uttered halfway down the turnpike" - a speaker of Dutch would have to use a present

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specification of which is provided *by a non-linguistic or linguistic antecedent* [italics mine; RB]" (Partee 1984: 245).

perfect, as in (40)b, rather than a simple past as in (40)a. And a Dutch speaker who utters (40)b is not talking about all moments in the past at which he didn't turn off the stove either.[15] If in (40)b this is not part of the semantics of the present perfect but rather the result of some pragmatic inference, then the possibility that it is just that in (38) as well should not a priori be excluded. This was already suggested at the very start of the tense-as-anaphor tradition by Partee herself:

> It occurs to me that it might be possible to construct a Gricean counterargument to this claim, and contend that the sentence asserts only that there is some time in the past at which I did not turn off the stove, with the narrowing down to relevant times explainable by conversational principles, particularly the principle of relevance. (Partee 1973: 603, fn.3)

It should be clear that the "context dependent" interpretation of (38), as described by Partee, is not incompatible with a one-dimensional analysis of the past tense in which the contextual restriction on (38) is left to a pragmatic inference of the sort that is needed for sentences such as Dutch (40)b anyway. With respect to (38), a similar suggestion has been made by Heny (1982), Ogihara (1992) and Bonomi (1995); the specifics of such an inference have been described, within the framework of relevance theory, by Carston (1988), Smith (1993) and Wilson & Sperber (1993).

A comparison with the use of the Dutch past tense in non-narrative discourse will provide us with five arguments against a two-dimensional analysis of the English past tense in eventive clauses such as (38). The reason that these counterarguments do not apply to the Dutch past tense is because the Dutch past tense basically functions as an imperfective past tense in non-narrative discourse (see section 1.5.3 and Chapter 6) and imperfectives are inherently two-dimensional (see sections 1.3.2.1 and 2.3.4). For the same reason, these arguments do not provide evidence against a two-dimensional analysis of (most) states and progressives in English, because the majority of stative clauses (1.5.2.2 and Chapter 6) and all clauses containing a progressive (Chapter 5) get an imperfective reading in English, regardless of discourse type. The crucial point to be made here is that if the anaphoric dimension is not (always) present in the interpretation of eventive clauses, it cannot be regarded as an *inherent* property of the past tense.

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[15] The same observation was made for French by Molendijk (1990: 42).

1. Let us compare more closely English (41)a and Dutch (41)b. (I have removed the negation from (38) and (40)a because it is not the topic of this section and it arguably affects aspect.)

(41) a. I turned off the stove.
b. Ik draaide het gas uit.
I turned the gas off
'I turned off the stove.'/'I was turning off the stove.'

It is not the case that the Dutch sentences in (40)a and (41)b can never be used in a non-narrative context. However, the contextual restriction on its use is more strict than that suggested for English (38) by Partee. Suppose, for instance, that a woman is sitting at the kitchen table reading the newspaper and suddenly hears a clicking sound. If she turns around and asks her husband what made the sound, he can answer using (40)b. If we think of the clicking sound as providing the reference time, we end up with a representation in which E and R coincide. If we want to use the notion of reference time to characterize the interpretation of English (36) and (40)a, this interpretation should be represented as E *being included in* the interval R, where R can be taken as the collection of moments at which I could have turned off the stove; the temporal reference is restricted to some relevant interval in the past before the leaving of the house. As seen above, such a general pragmatic restriction is not a sufficient condition for the use of the Dutch simple past.

Interestingly, the highly marked interpretation of (41)b is equally attested for imperfective tenses in other languages, such as the imparfait in French. According to Tasmowsky-De Ryck (1985a, 1985b), the sentences in (42), containing the imperfective past *imparfait*, can be used as a response to someone asking about some noise heard in the background.

(42) a. Oh rien, il fermait la porte.
o nothing he closed the door
b. Oh rien, il retrouvait ses papiers.
o nothing, he found his papers

It should be noted also that these sentences can be rendered in English by sentences containing a progressive (*he was closing the door; that was John closing the door*). The interpretation of such sentences, as described by Tasmowsky-De Ryck, is remarkably similar to that of the Dutch utterance in (41)b, as well as to

the interpretation of utterances such as those in (43)a-c, provided by Janssen (1991, 1994, 1995a).[16]

(43) a. Er werd geklopt.
there became knocked
'someone knocked on the door.'

b. Wie liet er een wind?
who let there a wind
'Who broke wind?'

c. Wie zat er aan de taart?
who sat there at the cake
'Who touched the cake?'

The contexual restriction on the use of (41)b, (42), and (43)a-c is much more strict than that on the use of (41)a. Intuitively speaking, the Dutch past tense, as well as the French imparfait and the English progressive, is "more anaphoric" than the English simple past. However, as it does not make sense to think about the anaphoric nature of tense in terms of degrees - something is either anaphoric or it is not - I prefer to restrict the notion of anaphoric temporal reference to what is expressed by the Dutch past tense in non-narrative discourse, and by imperfectives in general.

2. Let us assume that a speaker of English has two forms at his disposal to refer to situations that happened in the past, namely a simple past and a present perfect. The anaphoric analysis of the simple past then predicts the following: if a situation is [+ past] and, moreover, conceived of as linked to a time or situation that is already under discussion or can be inferred ([+anaphoric]), then the speaker will use a simple past tense form to present the situation; if the situation is [+ past], but conceived of as [- anaphoric], then the speaker will use a present perfect; this hypothesis is summarized in (44).

(44) [+ past] & [+ anaphoric] → simple past
[+ past] & [- anaphoric] → present perfect

[16] The specific interpretation of the sentences discussed here is not just a matter of aspect; it is one of the possible interpretive effects of presenting an *achievement* (Aktionsart) by means of an imperfective tense (aspect). Such a combination may also result in an iterative or habitual reading. This, in fact, is another possible interpretation of sentences such as Dutch (41)b (I was always the one who turned off the stove). See Chapter 5.

However, as is well known, there are many restrictions on the use of the present perfect in English, not all of which can be described in terms of non-anaphoric (indefinite) temporal reference. In the case of events, the restriction on the use of the perfect boils down to the fact that the result state of the past event has to be valid at the point of speech (cf. Chapter 4). Let us denote this property of the present perfect by means of the feature [+ result]. This constraint on the use of the English present perfect was illustrated in (14)b, repeated here as (45)a.

(45) a. ? I have entered the bank and then I have left again carrying a suitcase filled with 1000 guilder notes.
b. Ik ben de bank binnengegaan en ik ben weer naar buiten gegaan met een tas vol briefjes van 1000 gulden.
'I went (lit. have gone) into the bank and then I left (lit. have left) again carrying a suitcase filled with 1000 guilder notes.'

In (45)a, the result state of the first event (/being in the bank/) is cancelled immediately in the following clause which presents an event (/leaving/) that is pragmatically incompatible with the result state of the first event. As the present perfect of the first clause implies that the result state is still in effect, this results in an incoherent utterance. The Dutch present perfect in (45)b can be used in such contexts.

The problem this poses for maintaining an anaphoric analysis for the English simple past will be clear. The simple past in English has to be used not only for situations that are [+ past] and [+ anaphoric], but also for situations that are [+ past], [- anaphoric] and [- result]. If the concept of the situation does not obey the [+ result] constraint, then the English speaker has no other option than to present the situation by means of a simple past tense form, as is represented in (46).

(46) [+ past] & [+ anaphoric] → simple past
[+ past] & [- anaphoric] & [+ result] → present perfect
[+ past] & [- anaphoric] & [- result] → simple past

3. A further counterargument to the anaphoric analysis of the simple past, which is related to both counterarguments discussed so far, concerns the interaction of tense and temporal adverbials. For instance, in English (47)a, as in any other sentence containing a temporal adverbial referring to a definite moment in the past, the temporal adverbial forces the use of a simple past; (47)b is simply ungrammatical.

(47) a. I wrote a letter yesterday.
b. * I have written a letter yesterday.

It could be argued that the temporal adverbial provides the definite interval of time required for the use of the simple past and that the sentences in (47) thus substantiate the two-dimensional analysis of the past tense. The interpretation in fact corresponds to the one of Partee's example in (38); in (47)a, R can be taken as the interval denoted by *yesterday*, and the writing of the letter is to be situated somewhere in this interval.

In Dutch, both (48)a and (48)b are grammatical.

(48) a. Ik schreef gisteren een brief.
I wrote yesterday a letter
'I wrote/was writing a letter yesterday.'
b. Ik heb gisteren een brief geschreven.
I have yesterday a letter written
'I wrote a letter yesterday.'

These sentences are, of course, not semantically equivalent and the difference can be stated in terms of aspect; (48)a allows for an imperfective reading whereas (48)b does not. On the imperfective reading of (48)a, we need more contextual anchoring in addition to the temporal restriction imposed by a frame adverbial such as *gisteren* ('yesterday'). This additional anchoring can, for instance, be provided by a continuation such as *when all of a sudden my mother entered the room*. These intuitions about Dutch (48)a are equivalent to those about English (49), containing a progressive.[17]

(49) I was writing a letter yesterday.

The sentences in (48), once again, show the need to distinguish between the alleged anaphoric dimension of the simple past in (47)a, and the contextual anchoring required for the use of imperfectives, such as the Dutch past tense in (one of the readings of) (48)a and the progressive in (49).

4. Under **1** above, I argued that the anaphoric nature of the standard example of anaphoric tense interpretation, given in (38), is questionable. Even more problematic for the two-dimensional analysis are examples such as the a-sentences

[17] Another context in which Dutch (48)a can be used is if the situation is part of a narrative chain of events (see next section). In narrative discourse, the Dutch past tense allows for perfective readings and is then, of course, not equivalent to the English progressive.

of (50)-(53), which more clearly demonstrate uses of the simple past where the anaphoric dimension (of linking to some independently given R) is lacking and where there is only the deictic dimension (of precedence to S).[18]

(50) a. What became of your sisters? O, Jane married a sailor, Sue bought a gold mine, and Marjorie joined the air-force. (Heny 1982: 134)
b. Wat *is* er van je zussen *terechtgekomen*? O, Jane *is* met een zeeman *getrouwd*, Sue *heeft* een goudmijn *gekocht* en Marjorie *is* bij de luchtmacht *gegaan*.

(51) a. (I hear that) John found a diamond in his garden. (Stowell 1993)
b. (Ik hoor dat) John een diamant in zijn tuin *heeft gevonden*

(52) a. Is Bill in the house? No, he went away. (Declerck 1991: 305)
b. Is Bill in huis? Nee, hij *is weggegaan*.

(53) a. Were you ever in Africa?
b. *Ben* je ooit in Afrika *geweest*?

As is evidenced in the b-sentences, examples that have been given in the literature to illustrate the "purely deictic" use of the English simple past are most naturally rendered in Dutch by means of present perfect forms. The explanation for this is that such strictly deictic uses are restricted to (a) perfective aspect, and (b) non-narrative discourse. Imperfectives need an additional, anaphoric dimension (1.3.2.1 and 2.3.4); in narrative discourse, situations are primarily linked to one another rather than independently to the moment of utterance (1.5.3.2 and 2.3.3). In Dutch the domain of perfective aspect in non-narrative discourse is covered by the present perfect (Chapter 4), which explains why Dutch necesssarily uses a present perfect on the strictly deictic use illustrated in (50)-(53).

5. Related to the previous point, the assumption that the English past tense can be used in an exclusively deictic way, whereas the Dutch past tense cannot, is the most plausible explanation for the fact that two sentences containing a simple past, in non-narrative discourse (Caenepeel/Moens 1994; Vet 1996), allow for a reverse-order interpretation, as is illustrated in (54) (Moens 1987; Lascarides 1992).

(54) John fell. Max pushed him.

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[18] The claim that the simple past has non-anaphoric uses can be found in most recent studies on tense, including Heny (1982), Kuhn (1989), Binnick (1991), Smith (1991), Declerck (1991), Ogihara (1992), Stowell (1993), Klein (1995), Michaelis (1995), and Vet (1996).

If we analyse the two occurrences of the simple past in (54) as independently linked to the moment of utterance, then they allow, in principle, every possible ordering among the situations presented, as "pragmatic knowledge about the temporal order cannot conflict with linguistic information about that order" (Molendijk 1992) - which is in accordance with the actual interpretive possibilities of (54). In Dutch, reverse-order presentation, as in English (54), is more difficult for two sentences containing a past tense, as in (55)a, but it is possible when both sentences contain a present perfect, as in (55)b.

(55)	a.	John	viel.	Max	duwde	hem.		
		John	fell	Max	pushed	him		
	b.	John	is	gevallen.	Max	heeft	hem	geduwd.
		John	is	fallen	Max	has	him	pushed

The issue of reverse-order interpretation in English and Dutch will be discussed in more detail in 6.5 (cf. also 7.2).

To conclude, the English simple past is compatible with so-called anaphoric or definite readings but the anaphoric dimension is not an inherent property of the English simple past. In those cases where its use is sometimes labeled "anaphoric" or "definite", this aspect of its interpretation (not its *meaning*) should still be distinguished from the kind of anchoring that is required for the interpretation of imperfectives, such as the Dutch past tense when used in non-narrative discourse. In addition, as I will make clear in the following section, interclausal temporal relations in narrative discourse, which are sometimes called *anaphoric* relations as well, are of yet another type.

2.3.3. The anaphoric dimension of narrative discourse

The two-dimensional analysis of the past tense as discussed in the previous section may not seem directly relevant to the topic of this thesis, i.e. the determination of interclausal temporal relations. However, it has been argued within the two-dimensional approach, for instance by Partee (1984) and Hinrichs (1986), that the ability of the past tense to pick out a (relatively) definite time in a non-narrative utterance such as (38), repeated here as (56), is related to the fact that it indicates temporal coherence in narrative sequences such as (57)a and (57)b (= examples (1) and (2) from Chapter 1).

(56) I didn’t turn off the stove.

(57) a. John opened the door and walked to the bookcase.

b. John opened the door. It was pitch dark in the room.

Within the framework of *Discourse Representation Theory* (Kamp & Reyle 1993), for instance, it is assumed that in such narrative sequences it is the situation of the preceding clause which functions as the point of reference for a new clause. The situation of the new clause may follow this reference point (which is usually the case with events), as in the second clause of (57)a, or it may include it (which is typical for states), as in the second sentence of (57)b.[19]

Thus, both the context-dependent interpretation of the simple past in a non-narrative utterance such as (56) and the coherence of narrative sequences such as (57)a and (57)b are considered to follow from the anaphoric nature of the simple past: the past tense requires a temporal antecedent, formally represented as R, which must be either recoverable from extra-linguistic context (as in (56)), or given explicitly in the preceding discourse (as in (57)a and (57)b). It is, of course, attractive to have a unified analysis for the past tense in both cases, but it may be questioned if really the same thing is going on in these cases. In my view it is not, and, moreover, neither should be treated as a matter of temporal anaphora.

One indication that the definite interpretation of non-narrative (56) and the coherence in narrative (57)a and (57)b are not manifestations of the same semantic property is provided by the fact that Dutch uses different forms in these cases. Thus, it was observed in the previous section that English (56), on the reading intended by Partee, should be rendered in Dutch by a present perfect, as in (58)b, rather than by a simple past, as in (58)a.

(58) a. Ik draaide het gas niet uit.
I turned the gas not off
'I did not turn off the stove.'/'I was not turning off the stove.'

b. Ik heb het gas niet uitgedraaid.
I have the gas not turned-off
'I have not turned off the stove.'/'I did not turn off the stove.'

When used in non-narrative discourse, the Dutch past tense in (58)a prefers an imperfective reading (for reasons first set out in 1.5.3, see also Chapter 6), which, in eventive clauses, is obligatorily expressed by a progressive in English (1.5.2.1, see also Chapter 5). However, there is another context in which Dutch (58)a does not sound awkward at all. When (58)a is part of a narrative sequence of the sort exemplified in (59), the use of a simple past form is in fact the unmarked option in Dutch as well as in English.

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[19] The DRT analysis proposed by Kamp & Reyle (1993) will be discussed in some detail in Chapter 3. Their approach is subtly different from that proposed by Partee (1984) and Hinrichs (1986); I will discuss these differences in 3.2.

(59) Voordat ik vertrok deed ik alle gordijnen dicht maar *ik draaide het gas niet uit.*
'Before I left, I closed all the curtains but I didn't turn off the stove.'

Likewise, the English sequences in (57)a and (57)b must be rendered in Dutch using simple past verb forms, as in (60).

(60) a. John deed de deur open en liep naar
John did the door open and walked to
de boekenkast
the bookcase
'John opened the door and walked to the bookcase.'

b. John deed de deur open. Het was pikdonker
John did the door open It was pitch dark
in de kamer.
in the room
'John opened the door. It was pitchdark in the room.'

The assumption that the context-dependent interpretation of the simple past in non-narrative (56), on the one hand, and narrative (57), on the other hand, are manifestations of exactly the same semantic property, makes it difficult to explain why a language such as Dutch can use a past tense form in one case, but not in the other.

But even if we want to label the use of the past tense in non-narrative discourse exemplified in (56) as an *anaphoric* use, which I do not (see previous section), there is a rather striking difference between the type of temporal "anaphora" exemplified by this sentence, and the kind of "anaphoric" linkage that goes on in (57) and (60). The interpretation of the b-sentences in (57) and (60) does not constitute much of a problem for the two-dimensional analysis of the past tense; the state of the room being dark is interpreted as imperfective and thus as holding at a contextually determined moment in time, which, in this case, is provided by the preceding sentence, or rather, more specifically, by a point of perspective just after the event of the preceding sentence (see section 1.4.2 and Chapter 3).

However, the two-dimensional analysis is more problematic for event clauses such as those in (57)a and (60)a. According to Kamp & Reyle (1993), the reference time for the second event in these sentences is given by the event of the preceding sentence, but, nonetheless, the two events do not temporally coincide; nor is the second event holding at the time of the first event. Rather, in the words

of Kamp & Reyle (1993: 529), "events follow their reference-time". Thus, we have to say that temporal anaphora works out differently for events and states or rather, in my terminology, for perfectives and imperfectives. This is not in itself surprising, as we already came to the same conclusion on the basis of non-narrative data in the previous section. However, we now have to add the fact that temporal anaphora works in a radically different manner for events in narrative discourse than it does for events in non-narrative discourse. Kamp & Reyle's rule for events should clearly be restricted to narrative discourse; the event of not turning off the stove in (56) can hardly be said to be posterior to anything else. Rather, in (56), the situation is included in some pragmatically determined relevant interval of time.

Thus, neither the representation for (56) (E included in R) nor that for (57)a (E follows R) or (57)b (R included in E) suffices as a unified description of the *meaning* of the past tense, which should be independent of Aktionsart and discourse type. In the literature on tense, two different solutions to this problem can be found.

I. One maintains the claim that tense as such is anaphoric, and assumes that anaphoric reference in the domain of tense does not necessarily imply co-temporality.
II. One maintains the claim that anaphoric reference in the temporal domain implies co-temporality and restricts the claim that tense is anaphoric to those "tenses" that actually do signal co-temporality, i.e. imperfectives.

Before presenting in more detail the latter position, which I find the more attractive one, I will briefly discuss the former approach.

In order to maintain the two-dimensional analysis for all occurrences of the past tense, irrespective of aspect, the Reichenbachian co-temporality constraint on E and R (see (37)a) needs to be loosened up.[20] This is done, for instance, by Partee (1984) and Kamp & Reyle (1993). Partee (1973: 605) had characterized the anaphoric use of tense morphemes as the uses "where the time is specified in one clause and the tense of a subsequent clause refers to the same time". Twenty years later, Kamp & Reyle give the following description of the anaphoric aspect

[20] As Partee (1984: 256) notes, an analogous case in the pronominal domain would be a pronoun referring to the father of the last mentioned individual. It should be noted that giving up on the co-temporality condition is problematic for the analogy of tenses and pronouns but it does not invalidate the analogy between tenses and definite descriptions; there is not always referential identity between a definite description and its "antecedent" either; see, for instance, Keizer (1992: 187-275) for an overview and discussion of such "associative anaphora" or "inferrables".

of tense: "the next tense refers to the same time as the one preceding it, or else refers *to some time in the vicinity of that time* [italics mine; RB]" (1993: 497). Their modest anaphoric claim that "tensed sentences are interpreted as temporally related to the sentences preceding them" (p. 521) is obviously compatible with many configurations, including that of (57)a.

In the model proposed by Janssen (1989 and later), the relationship between a situation and its frame of reference is not necessarily one of co-temporality either. Janssen proposes a model which is as much a two-dimensional model as the ones treated here. The main difference is that Janssen characterizes both dimensions as non-temporal in nature. As for the dimension that is of interest for the present discussion, Janssen proposes replacing the notion of a temporal reference point (or interval) with the notion of a situational frame of reference. The relation between an event and its frame of reference established by tense often allows the inference of a temporal relation, but tense does not, in principle, impose any restrictions on their relative ordering. Janssen, like Kamp & Reyle, thus has no problem with regarding, for instance, the first event in English (57)a and Dutch (60)a as providing the frame of reference for the interpretation of the past tense in the second sentence.

In this thesis, I start off from a more strict definition of anaphoric temporal reference, as summarized in II above, and thus restrict the claim that "tense" is anaphoric to imperfectives. The three main reasons for doing so are the following. First, if the definition of temporal anaphora is broadened to include every possible ordering between situations, the notion becomes rather useless for the present investigation, which is aimed at finding linguistic clues for interclausal temporal ordering. Second, as the cross-linguistic comparison in the previous section made clear, the kind of anaphoric anchoring required for the interpretation of imperfectives is more strict than that attributed to perfectives and if one regards the latter as anaphoric, we lose a powerful tool to describe the systematic interpretation of imperfectives (see 1.3.2.1). Third, even on the most liberal conception of the relationship between a situation and its time of reference, it is hard to indicate what functions as reference time in sentences such as (50)a-(53)a (section 2.3.2); the category of perfective past allows for one-dimensional readings and, therefore, the anaphoric dimension cannot be considered an inherent semantic property of tense.

Now if the coherence of narrative discourse cannot be ascribed to the anaphoric nature of tense, as I have argued, then where does it come from? Situations presented in narrative discourse, such as the sequences in English (57) and Dutch (60), are obviously linked to one another rather than (or in addition to) the moment of utterance. According to the two-dimensional analysis of tense, this follows from the anaphoric nature of tense; it would explain why, for instance, the

sentences in (61)a and (61)b, containing present perfect forms, constitute less coherent sequences than those in (57)a and (60)a.[21]

(61) a. ? John has come into the room and has walked to the bookcase.
b. John is binnengekomen en is naar de boekenkast gelopen.

The past situations in these sentences are presented by means of untensed verb forms (participles), which, within the two-dimensional analyis of tense, would explain why they are not as coherently linked together as the situations presented by means of the past tense in (57) and (60) are. However, the only thing that is illustrated by these sentences is that narrative sequencing is incompatible with the present perfect and compatible with the simple past; as discussed in 1.4.1, semantic incompatibility as manifested in (61) tells us something about the meaning of the present perfect but not necessarily about the meaning of the simple past. More specifically, as argued by Michaelis (1995), these data leave open the possibility that the present perfect is [-anaphoric] whereas the simple past is unmarked with respect to anaphoric reference. (My own analysis is a little more complicated than this because I assume that the finite verb form of the present perfect denotes an imperfective, and therefore necessarily anaphoric, state holding at the present moment; see Chapter 4.)

The so-called anaphoric dimension of (57) and (60) is inherent to a specific discourse type, namely narrative discourse, to which the study of tense in discourse is devoted almost exclusively. Sandström (1993) has recently formulated the relevant property of narrative discourse as "the bracketing of the speech point" (cf. Oversteegen 1993; Caenepeel/Moens 1994; Caenepeel 1995). Thus, Sandström suggests that the deictic dimension of precedence to the moment of utterance is lacking from narrative discourse altogether (cf. also Bache 1986). This intuition has also been phrased as the claim that tense is un-informative once a narrative context is established (Dahl 1984; Comrie 1986b; Couper-Kühlen 1987; Ter Meulen 1995); the relationship of the individual events to the moment of utterance is irrelevant. Instead, in order to arrive at a coherent representation of the meaning of a narrative text, the events presented in consecutive sentences such as in (57) and (60) obviously have to be linked to one another in a meaningful way (cf. esp. section 3.4.2.2), but there is no need to attribute this to the semantics of the past tense.

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[21] The observation for English is as old as Brinkman (1885: 719). There is a clear difference between English and Dutch here; contrary to the English sequence, the Dutch sequence is not incoherent. It does have a certain non-narrative flavour to it in the sense that the situations seem to be *independently* linked to the moment of utterance (see Chapter 4).

Thus, narrative discourse can be said to have an extra dimension in addition to (or, according to some people, *instead of*) the deictic dimension, but this dimension is clearly different from the general pragmatic restriction on the use of the past tense discussed in the previous section. Futhermore, both of these phenomena should be distinguished from the co-temporality with an independently provided reference point as required by imperfectives. The latter is an inherent property of imperfectives, independent of Aktionsart and discourse type, and can thus be considered truly semantic.

2.3.4. The anaphoric dimension of imperfective aspect

The one-dimensional analysis and the two-dimensional analysis represent the meaning of the past tense as repeated in (62)a and (62)b, respectively.

(62) a. E < S
b. E,R < S

In my analysis, (62)a suffices as a semantic characterization of *perfective* past, whereas (62)b is well suited to deal with *imperfective* past (cf. 1.3.2) (see Löbner 1988 and Sandström 1993 for a similar claim).

The one-dimensional analysis of the past tense as represented in (62)a can deal with events that are presented by means of a simple past in English; in such clauses, the simple past gets a perfective reading (1.5.2.1 and Chapter 6). Thus, a sentence like (63) claims that there is an event E of the type "Mary writes a letter" and that E takes place before the moment of speech S (E<S).

(63) Mary wrote a letter.

The same analysis, however, is not applicable to clauses presenting a state or containing a progressive verb form, such as (64)a and (64)b. These sentences do not mean that there is a state S of the type "Mary is sick" and an event E of the type "Mary writes a letter" and that these happened before S (cf. Galton 1984; Löbner 1988; Herweg 1991; Sandström 1993).

(64) a. Mary was sick.
b. Mary was writing a letter.

The statements in (64) can only be used if some salient time, or situation, in the past is already under discussion, for instance, as the answer to the question *Why wasn't Mary at the meeting last week?* The sentences in (64) only claim that the

state of being sick and the event of writing a letter held at this definite time in the past. They do not claim that these situations no longer hold in the present, as can been seen in (65)a and (65)b.

(65) a. Mary wasn't at the meeting last week because she was sick and she is still sick now.
b. Mary was writing a letter half an hour ago and she may still be writing it now.

Therefore, the one-dimensional claim that "E precedes S" is false for imperfectives.[22] Whether or not a situation that is presented by means of an imperfective extends into the present is not a semantic matter; the semantics of imperfective aspect are compatible with either reading. However, the category of perfective past is incompatible with a situation in which the event continues at the point of speech, see (66).

(66) ? Mary wrote a letter and she may still be writing it now.

In accordance with my analysis of aspect in Dutch and English, Dutch (67)a allows for an imperfective reading and is, therefore, compatible with a continuation that makes clear that the situation is still going on at S; the Dutch present perfect in (67)b presents a right-bounded situation (see Chapter 4) and is therefore incompatible with such a continuation.

(67) a. Marie schreef een brief (toen ik haar net zag) en ze is er misschien nog steeds mee bezig.
'Mary was writing a letter (when I just saw her) and she is possibly still working on it.'
b. ? Marie heeft een brief geschreven en is daar misschien nog steeds mee bezig.
'Mary has written a letter and is possibly still working on it now.'

Thus, imperfectives share a semantic property that is not captured by a one-dimensional analysis of tense. The two-dimensional analysis represented in (62)b does justice to this additional dimension of imperfectives but cannot be

[22] Cf. Declerck (1991: 243 ff.) for discussion. Declerck correctly points out, however, that it is not always clear whether people who use "E before S" for characterizing the past tense, like Comrie (1981), necessarily mean "the whole of E before S".

generalized to include all occurrences of perfectives (see especially 2.3.2). In the words of Löbner:

> In beiden Fällen - dem perfektiven und dem imperfektiven - benötigt man einen Parameter t_o als deiktischen Ursprung; die Analyse imperfektiver Aussagen erfordert einen weiteren Parameter, die Bezugszeit t_e. Perfektive Aussagen involvieren dagegen keinen weiteren Zeitparameter. (Löbner 1988: 175)[23]

In the imperfective cases discussed thus far, the situations are durative and thus potentially extend far beyond their (punctual) reference time, sometimes well into the present and the future. However, this is only one of the reasons that we need a reference time to represent the meaning of imperfective past. More specifically, even in those cases where a situation presented by means of an imperfective can be said to coincide completely with its reference time, the postulation of such a reference time is not redundant for the category of imperfective past. Such a case is constituted by the imperfective reading of Dutch (68) (cf. discussion in section 2.3.2).

(68) Ik draaide het gas uit.
I turned the gas off
'I was turning off the stove.'/'I turned off the stove.'

Even on the imperfective reading of (68), the entire situation of turning off the stove can be said to precede S; the sentence is incompatible with continuations of the type exemplified in (65)-(67) (... *and I'm still turning off the stove now*). This does not mean that the one-dimensional representation in (62)a suffices to represent the meaning of (68). The imperfective needs to be linked to an independently provided reference time; the fact that the situation does not extend beyond its reference time follows from the punctual nature of the situation presented and is, thus, a matter of Aktionsart rather than aspect.

An interestingly parallel case is constituted by individual-level predicates (Carlson 1979; Kratzer 1994; Musan 1997), when used for individuals that are known, either from context or more general knowledge of the world, to be no longer alive or existing at the present moment, such as in (69).

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[23] Translation: 'In both cases - the perfective case and the imperfective case - a parameter t_o is needed to indicate the deictic centre; for the analysis of imperfective utterances a further parameter is needed, the reference time t_e. Perfective utterances, on the other hand, do not involve such a further temporal parameter.'

(69) a. At her funeral, everyone said that *Mary was a great teacher*.
b. Napoleon était un intellectuel de gauche. (Ducrot 1979: 7)
c. Pompei was a bustling city. (Binnick 1991: 449)

Such predicates, presenting permanent properties, are typically presented by means of imperfective verb forms. In fact, they often cannot be presented by means of perfective verb forms at all, as is demonstrated for French in (70)a (Guenthner, Hoepelman & Rohrer 1978), and for Italian in (70)b (Bertinetto 1986).

(70) a. * La fenêtre donna sur la cour.
the window gave on the courtyard
'The window had a view on the courtyard.'
b. * La finestra diede sul cortile.
the window gave on courtyard
'The window had a view on the courtyard.'

If anything, individual-level predicates, therefore, seem to be imperfective rather than perfective. With respect to (69)c, Binnick (1991: 449) notes that it "invites an *imperfective* reading ranging over the totality of Pompeii's (past) existence [italics mine; RB]". It may seem as though the sentences in (69) do not need a previously established (or contextually inferrable) point of reference, as required by the definition of imperfective aspect. However, I assume the antecedent of individual-level states to be given within the clause, namely as part of our encyclopaedic knowledge about individuals such as "Mary" and "Napoleon" (cf. Ducrot 1979; Vet & Molendijk 1986).

Now, if we take the notion of R in, for instance, (69)a to represent the whole lifetime of Mary (or, at least, the relevant part thereof), this results in a construal in which E and R coincide. For this reason, Molendijk (1983, 1990) considers sentences such as (69)b to be counterexamples to the claim that the imparfait expresses imperfective aspect. In my view, the use and interpretation of the verb forms in (69), just as that in (68), can be explained precisely from the fact that they are imperfective tenses, which require simultaneity with an antecedent, in combination with the specific lexical content of achievements and individual-level predicates, respectively.

It has been suggested before that, for instance, the McCawley-Partee analogy between tenses and pronouns (cf. section 2.3.2) is particularly, or even exclusively, relevant for imperfectives. Smith (1991: 129) claims that "sentences with imperfective viewpoints are often dependent on other information in the

manner typical of anaphora" (with a reference to Partee 1973). Houweling (1986: 163), in his discussion of tense in Italian, makes the same move with respect to McCawley (1971).[24] In fact, in the literature on the past tenses of French, it has become almost a commonplace to say that the imperfective past tense, the *imparfait*, is an anaphoric tense, thereby distinguishing it from its perfective counterparts, the *passé simple* and the *passé composé* (Tasmowsky-De Ryck 1985a,b; Vet & Molendijk 1986; Berthonneau & Kleiber 1993 and references cited therein). Whereas in Romance languages the distinction between perfective past and imperfective past corresponds to a formal distinction between different verb forms, Dutch and English lack such a systematic formal distinction of aspect. Thus, in order to apply the anaphoric analysis of imperfective aspect to Dutch and English, we need an account of when the unmarked past forms in these languages express one or the other aspect; such an analysis is provided in part II of this thesis (an initial summary was given in 1.5).[25]

As for the meaning of the past tense, it should be noted that I do not claim that the past tense is ambiguous between the readings represented in (62)a and (62)b; I do, for instance, not subscribe to Declerck's (1991, 1995) claim that English has two past tenses (an absolute one and a relative one) that happen to be homophonous. Both a perfective past and an imperfective past express the deictic dimension of precedence with respect to S (or S'); this dimension is independent of aspect and constitutes the meaning of the past tense. The category of imperfective past expresses an *additional* dimension of anaphoric linking to an independently provided reference time but the deictic dimension is also part of its meaning; thus, in this thesis, imperfectives are assumed to express both deictic *and* anaphoric information. It might seem like a problem for a unified analysis of the deictic dimension of the past tense that it orders E before S in the case of perfective past, and R before S in the case of imperfective past. In my view, however, the *meaning* of the past tense in English and Dutch is neither "E before

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[24] It should be clear, however, that Partee and McCawley never intended their analogy to be restricted to imperfectives.

[25] For English, one sometimes finds the difference between progressive and present perfect being described in terms of definiteness (Diver 1963; Barwise & Perry 1983: 299). Such an analysis is different from my own, but clearly compatible with it in the sense that it links up definiteness with (imperfective) aspect rather than tense. Cf. also how König defined a condition on the use of the progressive: "in contrast to the simple form of the verb, the progressive does not introduce a temporal context but depends for its interpretation on a temporal context independently established" (1980: 299).

S" nor "R before S", but simply "before S" (in which S can be either the moment of utterance or a shifted deictic centre; see 2.2.1).[26]

2.4 Conclusion: Tense and temporal ordering

In this chapter, I have argued in favour of a one-dimensional analysis of the past tense; the past tense expresses the deictic dimension of precedence with respect to a deictic centre. Furthermore, I offered a critical examination of the notion "temporal anaphora", which has been used in the literature to denote at least three qualitatively different phenomena (discussed in 2.3.2, 2.3.3., 2.3.4). I argued in favour of restricting this notion to the kind of anchoring required for the interpretation of imperfectives (2.3.4). Thus, the anaphoric dimension is an inherent property of imperfective aspect, not of the category of tense *per se*.

Information on interclausal temporal ordering is expressed by the past tense only when it is embedded under a future (section 2.2.1). In all other instances, the past tense is *semantically* compatible with any temporal order of past situations. Constraints on interclausal temporal ordering are provided by aspect and pragmatic incompatibility, not by tense. This analysis of the past tense is also applicable when it is embedded under another past tense; I have argued that the postulation of a formal device such as sequence of tenses is not necessary to account for the interpretation of the past tense in Dutch and English (2.2.2).

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[26] Non-temporal uses of the past tense, such as its use as irrealis, potentialis, or in politeness formulas, are, obviously, not captured by this definition; to include those, it seems necessary to postulate that the distance with respect to the deictic centre as expressed by the past tense need not necessarily be temporal in nature. To preserve the one-to-one relation between form and meaning, the encompassing meaning must be something like "disfocality" (Janssen 1993 and later); cf. section 7.5 on a possible connection between aspect and non-temporal (modal) interpretation.

3 Aspectuality

3.1. Introduction

Throughout my discussion of tense, in Chapter 2, it became evident that it is aspectuality and pragmatic incompatibility rather than tense that impose constraints on the interpretation of temporal relations across clause boundaries. As explained in 1.3.1, the term *aspectuality* is used as a cover term for Aktionsart and aspect. Aktionsart, or lexical aspect, pertains to the distinction between clauses presenting events and clauses presenting states (as well as to more fine-grained classifications such as Vendler 1967; see section 3.2).[1] I reserve the term aspect, or *grammatical* aspect, to indicate the aspectual interpretation of a language-specific formal category, such as the Dutch and the English simple past tense, as either perfective or imperfective. After having separated, in Chapter 2, the contribution of tense from that of aspectuality, it is the main purpose of this chapter to distinguish, on the one hand, between the contribution of lexical aspect and that of grammatical aspect and, on the other hand, between the contribution of aspectuality and that of pragmatic compatibility.

In the existing literature on the connection between aspectuality and interclausal temporal ordering two groups of proposals can be distinguished. The first one can be found in formal discourse-semantic approaches; most notable among these is the research conducted within the framework of *Discourse Representation Theory* (Kamp/Reyle 1993; see also Kamp/Rohrer 1983a, 1983b; Partee 1984; Hinrichs 1986; Dowty 1986; Nerbonne 1986; Eberle 1992). Crucial ingredients of these proposals are (a) the notion of reference time, and (b) Aktionsart. Hinrichs (1986: 68), for instance, claims that

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[1] Binnick (1991: 400) regards it as "an unfortunate terminological innovation" to call the distinction between events and states a matter of Aktionsart. Like François (1985) and Schwall (1991), he would like to restrict the use of the name Aktionsart to what I prefer to call Phasal Aktionsart. Phasal Aktionsart singles out a particular phase of a situation (its beginning, middle, or end) and is expressed, in English and Dutch, mostly by aspectual verbs such as *to start* and *to finish*. Detailed examinations of phasal Aktionsart in English are offered by Freed (1979) and Tobin (1995). Dutch has a whole inventory of what the German linguistic tradition calls *Funktionsverbgefüge* that arguably express Phasal Aktionsarten as well. Examples include *aan de praat raken* (lit. to get at the talk), *tot de ontdekking komen* (lit. to come to the discovery), *in bloei staan* (lit. to stand in bloom), etc. So far, these "verbo-nominal predicates" in Dutch have received attention only in contrastive studies with German (Hinderdael 1986; Ten Cate & Vandeweghe 1991; Leclercq 1993) and they deserve a more elaborate treatment of their own. However, phasal Aktionsart will not be dealt with in any detail in this thesis.

> the division between sentences in the simple past whose events overlap each other and sentences whose events precede each other is not completely arbitrary, but rather related in a systematic fashion to the Aktionsarten to which the events in question belong.

A seemingly quite different, but compatible, approach was offered - long before DRT - by functional linguists who were looking for formal correlates of the distinction between *foreground* and *background* in narrative discourse. The distinction between foreground and background as it is employed in these studies is relevant for the purpose of my investigation because, in the words of Reinhart (1984: 779), "the resulting picture within this approach is that the temporal sequences of the narrative text [...] form the foreground of the text". A large number of studies within this field, mostly dealing with languages other than English and Dutch, have related the distinction between temporal sequence and temporal overlap in discourse, to, among other things, the formal distinction between perfective and imperfective (or progressive) aspect; see, in particular, the work of Hopper (1979, 1982) (cf. also Labov 1972; Hopper & Thompson 1980; Givón 1982; Thelin 1990; Fleischman 1985; Dry 1981, 1983).[2] An explicit statement about the relationship between aspect and temporal ordering can be found, for instance, in the following quotation from Hopper (1979: 58):

> The perfective aspect is found mainly in kinetic, sequential events which are central to the unfolding of the narrative [...] Imperfective aspect is used typically for backgrounding: situations, descriptions and actions which are simultaneous or overlapping with a perfective event.

This leaves us with two hypotheses about the connection between aspectuality and temporal ordering: one phrased in terms of Aktionsart, the other in terms of aspect. To some extent, the difference between these approaches is merely a terminological one. The DRT approach describes grammatical aspect *in terms of* lexical aspect: forms expressing perfective aspect are said to introduce events into the discourse representation, whereas forms expressing imperfective aspect are said to present states. Hopper's functional approach takes the opposite route of using the term *aspect* to cover both aspect and Aktionsart. Neither terminological move is useful for the present investigation, which aims at disentangling the

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[2] Jespersen's (1931) "frame"-analysis of the English progressive can be regarded as a predecessor of this approach.

contribution of various linguistic clues of interclausal temporal ordering - particularly, but not exclusively, for the purpose of cross-linguistic comparison.

I will start out this chapter by discussing the DRT (or DRT-inspired) approach to temporal ordering (3.2.1). I will point out four major problems with such an approach. Two of these are mainly matters of terminology and formalization; they concern the use of the Vendler classes (3.2.2.1) and the notion of reference time (3.2.2.2). I will argue that these problems have been satisfactorily solved in an alternative approach to the contribution of Aktionsart to temporal interpretation as advocated by Moens (1987; Moens & Steedman 1988; Caenepeel 1989). The other two problems argue against postulating any connection between the category of Aktionsart and interclausal temporal ordering. The first of these, to be discussed in section 3.3, concerns the role of grammatical (rather than lexical) aspect. The second concerns the contribution of pragmatic reasoning to the determination of temporal relations in discourse, which will be the main topic of section 3.4.

3.2. The contribution of Aktionsart

3.2.1. The DRT approach

In the previous chapter, I argued that the past tense in narrative sequences such as (1)a and (1)b does not convey information on interclausal temporal ordering. This is self-evident: the second clause/sentence of both (1)a and (1)b contains a simple past and yet in (1)a the situations are sequential and in (1)b the situation presented in the second sentence most likely overlaps with the preceding situation.

(1) a. John opened the door and walked to the bookcase.
b. John opened the door. It was pitch dark in the room.

On the basis of examples such as these one might still be tempted to conclude that the temporal interpretation of these utterances is determined by the linguistic information provided by the individual clauses, in particular by the distinction between event-clauses and state-clauses. Such an account of temporal interpretation in terms of Aktionsart is proposed by Kamp & Reyle (1993) within the framework of *Discourse Representation Theory*.

In addition to the distinction between events and states, Kamp & Reyle use the notion of *reference point* to account for this phenomenon. As seen in Chapter 2, the alleged anaphoric nature of tense makes it necessary to link any situation

presented by means of a simple past tense to some reference point - this is the case irrespective of Aktionsart. Events and states, however, are assumed to establish a different relation with their reference point.[3] In Kamp & Reyle's words: "Events always follow their reference point, States always include it" (cf. section 2.2.3). If we take the event of opening the door in both (1)a and (1)b as providing the point of reference for the situation in the second clause or sentence, then the correct temporal ordering in both cases follows from Kamp & Reyle's generalization. The second clause of (1)a presents an event and, indeed, this event follows the event of the previous clause; the second sentence of (1)b presents a state and this state includes the event of the previous clause. However, regarding the (time of the) explictly mentioned event of John opening the door as the reference point for the second situation seems to be insufficient to explain the temporal coherence of both (1)a and (1)b. This will become clear when comparing Kamp & Reyle's proposal with the subtly different analysis proposed by Hinrichs (1981, 1986) and, following Hinrichs, by Partee (1984).

Instead of a twofold distinction between states and events, the relationship between Aktionsart and temporal ordering in discourse is often formulated in terms of the fourfold distinction introduced by Vendler (1967), i.e. *states, activities, accomplishments* and *achievements.* Hinrichs (1986) can be cited here as a well-known example:

> The reference point of a discourse can be shifted by [...] the Aktionsart of a main clause; accomplishments and achievements introduce new reference points, while states, activities and events described in the progressive do not. (1986: 81)

In addition to the fact that Hinrichs uses a more fine-grained Aktionsart classification, there is one more important difference between Hinrichs's proposal and that of Kamp & Reyle. Hinrichs's analysis, like that of Kamp & Reyle, is in accordance with the anaphoric claim that events should be linked to a reference point, but he adds a new element to it. In addition to being included in their own reference time (instead of following it, as in Kamp & Reyle's analysis), events are said to introduce a new reference time into the discourse representation (cf. the quotation given above), which is to be situated "just after" the event. It is this reference time rather than the preceding event itself, as in Partee's (1973) and

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[3] This generalization is often attributed to Hinrichs (1981, 1986). Hamann (1987: 57) states that these facts were noticed "almost simultaneously" by Hinrichs (1981) and Schopf (1984). However, a highly similar analysis can already be found in Zydatiß (1976). The contribution of Zydatiß is acknowledged in the work of Schopf and Declerck (1991).

Kamp & Reyle's (1993) analysis, which subsequently functions as the reference time for the event of the new clause. This use of the point of reference, which I will occasionally refer to as "Hinrichs's R", has two important advantages when compared to the way it is used by Kamp & Reyle.

First, it allows Hinrichs to maintain the co-temporality condition on E and R. In the previous chapter, it was noted as a problem for the two-dimensional analysis of the past tense (as E,R < S) that in narrative sequences such as (1)a a situation *follows* its reference time. This makes the interpretation of the past tense in such sequences rather different both from its interpretation when the clause presents a state, as in the second sentence of (1)b, and from its interpretation in non-narrative event clauses such as (2).

(2) I didn't turn off the stove.

Hinrichs's analysis, however, allows for a unified treatment of event clauses in narrative and non-narrative discourse; the second situation in (narrative) (1)a is now included in its reference time much as the event of not turning off the stove in (non-narrative) (2) can be said to be included in some contextually salient interval of time (cf. 2.3.2). This is more satisfactory than to weaken the co-temporality condition and say that "events follow their reference time" or that a tense refers to a time "in the vicinity of" the time referred to by the previous tense (Kamp & Reyle 1993).

Second, the notion of a reference point to be situated just after an event enables Hinrichs to account for those instances in which a state does not overlap with a preceding event, where it should according to Kamp & Reyle's generalization. Both in (3)a and (3)b, the state in the second sentence can be said to overlap with the reference point introduced by (and just after) the preceding event; whether or not it will also overlap with the preceding event itself is left to pragmatic inferencing.

(3) a. John opened the door. It was pitch dark in the room.
b. John switched off the light. It was pitch dark in the room.

Sandström (1993: 24-25) has remarked that this analysis is counterintuitive because a sequence such as (3)a is "by far the more typical for how states are interpreted in narratives". However, this analysis of states is needed not only to account for so called exceptional cases such as (3)b, but even for a standard example of an overlapping state such as (3)a (= (1)a). In my view, it is intuitively correct that the state of the room being dark in (3)a is evaluated at a (perspective) point just after the opening of the door. It can easily be shown that it is, in fact,

not part of the semantic content of (3)a that the state overlaps with the preceding event. The sequence in (3)a is true even if it was not dark in the room right before John opened the door; it is *semantically* compatible with such an interpretation. However, as long as further context does not provide the information that these situations are pragmatically incompatible, we will assume that it was already dark before John opened the door in (3)a. In (3)b, however, it is plausible, in the absence of information to the contrary, to infer a causal connection between switching off the light and the room being dark. A causal relationship between an event and a state (or another event) constitutes a specific case of pragmatic incompatibility (see 3.5) and, therefore, we assume that it was not dark yet before John switched off the light. Likewise, whether or not the sequence in (4) is considered true is independent of the issue whether or not there was light inside the fridge before John opened the door; the sequence is semantically compatible with either reading.

(4) John opened the door of the fridge. The inside was brightly lit.

The notion of a reference point to be situated just after the preceding situation enables one to give a unified analysis of the semantics of the sentences in (3) and (4).

Additional evidence for the fact that such a device is needed comes from sequences such as (5). The difficulty in interpreting this sequence is caused precisely by the fact that it is hard to come up with a context in which it would make sense for John to notice or realize the fact that he has black hair just after he opened the door (cf. Sandström 1993; Caenepeel 1995).

(5) He opened the door. His hair was black. (Boogaart 1991b)

However, if there is such a context, the sequence becomes natural; this is clear from (6).

(6) He opened the door. His hair was wet and a sudden blast of cold air made him shiver. (Caenepeel 1995)

It could be argued that the difference between (5) and (6) is related to the fact that the state in (5) refers to a permanent property, whereas the state in (6) refers to a temporary property. But even with respect to (5) it is a sufficient condition for a coherent interpretation if the second sentence can be interpreted as the thought or observation of *another* character in the story; suppose, for instance, that Mary had been waiting for her blind date to enter the room while secretly

hoping that his hair was not black because of her bad experiences with black-haired men in the past. All this suggests that the notion of a reference time different from the time of any situation explicitly mentioned in the discourse is needed to account for the interpretation of imperfectives (cf. Molendijk 1993, 1996) and, therefore, I find this aspect of Hinrichs's analysis to be worth pursuing.

It is a serious shortcoming of most Aktionsart-based rules for interclausal temporal ordering that they formulate rules for interclausal temporal ordering exclusively in terms of events and states that are explicitly mentioned in the discourse; the same is true of the aspect-based proposals to be found in the functional literature (3.1). However, even if (and, to some extent, *especially if*) we allow Hinrichs-style additional reference times, there are serious problems attached to the DRT approach to temporal ordering in discourse, and, more generally, to the claim that Aktionsart determines interclausal temporal relations.[4] In the remainder of this chapter, I will discuss four major problems and possible solutions to them. These problems can be divided into two groups. The first two problems concern, in particular, the tools used within DRT, and related formal approaches, to account for interclausal temporal ordering.

I. Vendler classes are not explanatory and give rise to redundancy (3.2.2.1).
II. The notion of reference point is used to capture qualitatively different phenomena (3.2.2.2).

I will show that an alternative approach to the role of Aktionsart, in terms of telicity and (inferred) result states, which has been developed, in particular, by Moens (1987; cf. Moens & Steedman 1988; Caenepeel 1989; Boogaart 1993; Sandström 1993), can easily solve these problems. The remaining two issues constitute a problem for any proposed connection between Aktionsart and interclausal temporal ordering, independent of framework and formalization.

III. Constraints on interclausal temporal ordering are provided by grammatical aspect; they are provided by Aktionsart only to the extent that Aktionsart interacts with aspect (3.3).
IV. Interclausal temporal relations are ultimately determined by pragmatic compatibility (3.4).

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[4] From here on I use "DRT approach" to refer to both Partee/Hinrichs and, DRT in the strict sense, Kamp & Reyle.

3.2.2. Alternative proposals

3.2.2.1. From Vendler classes to telicity. The first problem is constituted by the use of the Vendler classes. Vendler's own examples of the four "time schemata implied by the use of English verbs" (1967: 144) are given in *Table 3.1* below.[5]

Table 3.1. Vendler's (1967) examples of his verb classes.

States	Activities	Accomplishments	Achievements
have	*walk*	*paint a picture*	*recognize*
possess	*swim*	*make a chair*	*realize*
desire/want	*push, pull*	*build a house*	*spot*
(dis)like		*write/read a novel*	*identify*
love, hate		*deliver a sermon*	*lose/find object*
rule, dominate		*give/attend a class*	*reach summit*
know, believe		*grow up*	*win the race*
		recover	*cross the border*
		get ready	*stop/start*
			be born, die

A serious drawback of using these Vendler-classes, as Hinrichs does, or the twofold distinction between states and events, as Kamp & Reyle do, to explain temporal ordering in discourse is that it obscures the underlying parameters that are crucially involved. The fact that the Vendler-classes themselves are not explanatory is illustrated by the fact that Hinrichs, as illustrated by the quotation given in the previous section, groups different Vendler-classes together: "accomplishments and achievements", on the one hand, are distinguished from "states, activities and events described in the progressive", on the other hand. So there seems to be a property that is shared by, for instance, "states, activities and events described in the progressive" which is responsible for the fact that they do not move narrative time forward, but it is not clear what this property is - let alone why it would correlate with temporal overlap or simultaneity. Hinrichs, therefore, can be regarded as one of those people who, in the words of Verkuyl (1993: 33), "do not use his [Vendler's; RB] classes if they express linguistically

[5] As was already acknowledged by Vendler, albeit implicitly, Aktionsart is not a property of verbs alone. The contribution of, in particular, subjects and objects was not made explicit until the work of Verkuyl (1972) (Mourelatos 1978; Dowty 1979). Thus, /paint/ is an *activity*, /paint a picture/ is an *accomplishment*, but /artists paint a picture/ is an *activity* again and so is /paint pictures/. In this thesis I will use Aktionsart to denote a property of the lexical content of complete clauses, without going into the details of how it can be computed from the various components in the clause (cf. 1.3.1).

relevant generalizations". Thus, proposals in terms of the Vendler classification, even if they make the correct predictions - which they do in the majority of cases, at least for English narrative discourse -, are not in themselves explanatory and suffer from redundancy.

So what are the parameters underlying the Vendler quadripartition and which is or are potentially relevant for determining interclausal temporal relations? To judge from Hinrichs's proposal, the relevant parameter must be the one that distinguishes between "accomplishments and achievements" (Kamp & Reyle's *events*), on the one hand, and "states and activities" (Kamp & Reyle's *states*), on the other hand.[6] This is the parameter of telicity (Garey 1957). Clauses presenting [+ telic] situations make reference to a change of state (Von Wright 1965, Dowty 1979, Vet 1980; Moens 1987; Molendijk 1990). Telic situations are presented as having a starting point and a natural final point (or "culmination"), followed by a specific outcome, or result state. By way of example, the predicate /write a letter/ refers to a situation that is the transition from one state (where there is no letter) to another state (where there is a letter). Of course, most activities and some states have starting points and end points as well. These, however, are not part of the semantics of such [- telic] predicates; it is our knowledge of the world that tells us that these situations, such as sleeping or thinking, do not continue indefinitely. In addition, [- telic] situations may end, but their end does not mark the beginning of a result state. Rather, the initial state preceding an atelic situation and the result state following it are qualitatively the same, and, therefore, it does not make sense to use the notions of initial and result state for the concept of an atelic situation.

Within the class of [+ telic] situations, a further distinction can be made in terms of *durativity*. Accomplishments are [+ durative]: they consist of successive stages leading up to the final point. Achievements, however, are [- durative] in the sense that they just present a change of state; their initial and final point coincide.[7] This results in *Table 3.2*.

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[6] I am leaving out the contribution of the progressive here. The fact that clauses containing a Progressive constitute yet another class in Hinrichs's proposal (see the quotation in the previous section) points at a more serious shortcoming of Vendlerian approaches - the neglect of grammatical aspect of unmarked forms such as the simple past - and I will discuss this separately in section 3.3.

[7] Many recent Aktionsart classifications distinguish five rather than four classes; the fifth class would be constituted by achievements that are [- telic]. Moens & Steedman (1988) call them *points*; Smith (1991) refers to them as *semelfactives*. Typical examples include /cough/, /hiccup/ and /knock at the door/. However, as far as interclausal temporal ordering is concerned they behave in the same way as telic achievements.

Table 3.2. Accomplishments and achievements characterized in terms of telicity and durativity.

Vendler class	Telic	Durative
Accomplishment	+	+
Achievement	+	-

Graphically, the concepts associated with the class of accomplishments and achievements can be visualized as in I and II, respectively.

I. Accomplishment

InBound FinBound
INITIAL STATE | EVENT | RESULT STATE

II. Achievement

INITIAL STATE | RESULT STATE

Even though the two features of telicity and durativity allow for four possible combinations, they are not sufficient to characterize the four Vendler classes, as both states and activities come out as [- telic] and [+ durative]. Thus, we need an additional feature that separates states from activities. I will refer to this feature as [change]. Activities are characterized as [+ change] because, even though they are [- telic], they do involve change. This is perhaps most clearly demonstrated by the fact that the smallest sub-interval of the interval for which an activity like /John walk/ holds does not really count as a walking event. One needs more than one point in time to be able to say that "John walks" is true. For instance, lifting one foot from the floor does not count as walking (Taylor 1977). This is not true of states. States are true for even the smallest subintervals. If one is ill from t_1 to t_2, then one can truthfully say for every moment between t_1 and t_2 that one is ill. The three features result in *Table 3.3*.

Table 3.3. Parameters underlying the Vendler classification.

Vendler class	Change	Telicity	Durative
State	-	-	+
Activity	+	-	+
Accomplishment	+	+	+
Achievement	+	+	-

The most adequate way to represent the concept associated with states is that of a straight line as in III (cf. Smith 1991; Kamp & Reyle 1993).[8] To indicate the internal change, or dynamicity, that distinguishes activities from states, the concept of an activity in IV is represented by means of slashes.

III State ([- change], [- telic], [+ durative])

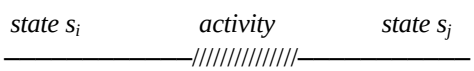
IV Activity ([+ change], [- telic], [+ durative])

//

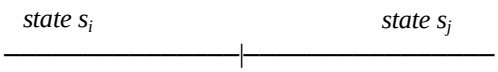
Interestingly, the concepts in III and IV were already used as parts of the representations for accomplishments and achievements in I and II. In a way, states and activities are the building blocks from which accomplishments and achievements are built. The event-phase of an accomplishment (without its culmination) can be regarded as an activity. /John write/ is an activity, as opposed to /John write a book/, which is an accomplishment. The concept of a state was used in both I and II to represent the initial state and result state associated with telic situations. To bring out the affinity between the four classes, accomplishments and achievements can thus be represented as follows.

[8] This might seem to contradict my claim that states are usually interpreted as a property of an independently provided point in time, as well as Verkuyl's claim (based on Vendler) that "states and achievements pertain to instants" (1993: 34). However, it should be kept in mind that Aktionsart is, in my view, a lexical property of untensed clauses. It is not until lexical content is expressed by means of a tensed clause that the situation gets mapped onto the time-line; whether or not a situation is linked to an independently provided reference time is determined by aspect, not Aktionsart. That states usually *are* interpreted in that way is because states standardly receive an imperfective (see especially 5.5.3.1).

I Accomplishment ([+ change], [+ telic], [+ durative])



II Achievement ([+ change], [+ telic], [- durative])



In addition to giving some insight into the intuitions that underlie the Vendler classification, this short excursion makes clear that, as argued in Boogaart (1993), Hinrichs's Aktionsart-based rules for temporal ordering may be reformulated as the two rules in (7).

(7) a. If Aktionsart S_i is [- telic], then $R_i = R_{i-1}$
b. If Aktionsart S_i is [+ telic], then $R_i > R_{i-1}$

Thus, the problem of redundancy that results from adhering to the Vendler classes can easily be solved. Still, the rules in (7) and the graphical representations in I-IV do not as such tell us very much about *why* the rules in (7) often make the correct predictions for English narrative discourse - but less often for Dutch (see 3.3) and less often for non-narrative discourse (see 3.4). Part of the lack of explanatory power of this and related proposals within the formal discourse-semantic approach is caused by the unclear status of R, which is the following problem I will address.

3.2.2.2. From reference point to result state. In section 3.2.1, I named two advantages of using a device such as Hinrichs's R - and these advantages persist, of course, independent of the issue whether or not we want to call this device R. First, it seemed like an elegant way to capture the temporal coherence of consecutive events (see (8)a = (1)a). Second, it captured our intuition that states are sometimes interpreted at moments that are as such not explicitly mentioned in the surrounding context (see (8)b = (3)b).

(8) a. John opened the door and walked to the bookcase.
b. John switched off the light. It was pitch dark in the room.

However, the notion of reference point as it is used by Hinrichs is problematic, especially because the notion is used to denote qualitatively different things; Hinrichs's R is not one and the same thing in (8)a, on the one hand, and (8)b, on the other hand.[9]

In Chapter 2, I showed that in the literature on tense and aspect, the notion of reference point is used to capture, at least, the following three different phenomena:

I. The pragmatic restriction on the interpretation of some non-narrative utterances containing a simple past tense in English (section 2.3.2).
II. The antecedent that is needed for an adequate use and interpretation of imperfective aspect (section 2.3.4).
III. The linking of situations to one another in narrative discourse in order to arrive at a coherent representation of the meaning of the text (section 2.3.3).

When interpreting the second sentence of (8)b, we need a reference time of the sort referred to in II above. States are standardly interpreted as imperfective in English and, therefore, need to be linked to an independently provided point of reference. Such a reference time is sometimes given explicitly, either within the clause or in the preceding discourse, whereas in other cases it has to be inferred from context or situation (cf. 1.4.2). If we add inferred perception moments as possible antecedents to the second group, we can keep on using the notion of R as a useful tool to generalize over all the different types of antecedents that can function as reference time for the interpretation of imperfectives.

While Hinrichs's analysis of (8)b is thus in accordance with my own conception of R, summarized as II above, the suggestion that R can be thought of as an inferred perception moment does not make sense at all in (8)a; the simple past tense in the second clause of (8)a is interpreted as perfective rather than imperfective and the situation it presents is, therefore, contextualized in a different way from the one in the second sentence of (8)b. In my analysis, situations presented by means of a perfective past are not linked to a reference time at all,

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[9] The observation that the notion of reference point is used in the literature to denote different things (see, among others, Bertinetto 1986a and Hamann 1987), has led Discourse Representaton Theory to make a distinction between *reference point* and *temporal perspective point* (Kamp & Reyle 1993). More recently, Kamp has suggested that the notion of reference point might be sufficient after all and that other phenomena should be handled in terms of aspectuality, i.e. in terms of aspect and Aktionsart, or, in Smith's (1991) terms, *viewpoint aspect* and *situation aspect* (Kamp 1999). The approach taken in this thesis is of course completely in line with the latter claim.

and, therefore, I cannot use this notion to represent whatever it is meant to represent in Hinrichs's analysis of (8)a.

Now, what exactly does R stand for in the case of consecutive events in narrative, such as in (8)a? As argued by Moens (1987), in such cases the notion of R can be given more explanatory power by treating it as the result state of the first event. Given my representation for telicity given in 3.2.2.1, it can easily be shown why clauses presenting [+ telic] situations are capable of moving narrative time forward, which is not to say that they do so as a rule. More specifically, the new point, or rather *interval*, of reference introduced into the discourse representation by telic clauses (just after the event itself) can be identified with the result state of the event. The concept of a telic situation includes reference to the result state of the situation, and it is this result state which subsequently functions as the "background", or "frame of reference", for the situation of the new clause (Moens 1987; Moens & Steedman 1988; Caenepeel 1989; Sandström 1993; Boogaart 1993, 1995).

An additional advantage of representing the relationship between the events in (8)a like this is that it captures our intuition that in strings of narrative clauses the events are never related exclusively in a temporal way. Indeed, for a sequence of sentences to make up a coherent text, the events presented in the consecutive sentences should not be related merely in a temporal way; a temporal relation, be it one of sequence or overlap, can be seen between literally anything that happens or exists literally anywhere in the world. Therefore, the fact that two events follow each other is not a sufficient condition for coherence (see section 3.4; cf. Van Dijk 1975; Caenepeel 1989; Boogaart 1992, 1993; Sandström 1993). Adding the condition that the second event must be *in the vicinity of* (Kamp/Reyle), or *just after* (Partee/Hinrichs) the first event, does not make things much better. Both notions are still strictly temporal, and, moreover, hard to define.[10] Besides, it may be true that in (8)a the second event comes "just after" the first event, but it does not make sense to say the same thing with respect to the events in (9).

(9) Bill Clinton was born in Little Rock Arkansas, studied law, and became the president of the United States.

Still, (9) is a perfectly coherent sequence, even if the three events are separated by decades. What (8)a and (9) have in common is not so much that the second event is "just after" or "in the vicinity" of the first event, but rather that the events

[10] Partee (1984: 283, fn 28) suggests defining it as follows: "e' is just after e iff e' is after e and there is no contextually relevant e'' between e and e'".

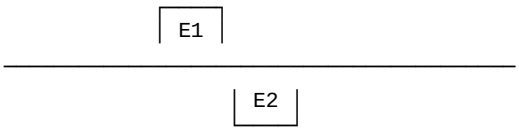
are coherently linked together by means of an inferred result state which functions as the cement that keeps narrative events glued together (Boogaart 1993, 1995).

Thus, the point of reference that gets introduced by clauses presenting telic situations can be given more content and explanatory power by identifying it with the result state of the situation. If we accept such a more complex structure for telic situations, consisting of a result state in addition to an event phase (Freed 1979; Moens 1987), we do not need to use R to capture the phenomenon of narrative coherence and time movement with telic clauses (Caenepeel 1989; Sandström 1993).[11] For most atelic clauses we still need the notion of reference time, but this is in accordance with the fact that they are usually interpreted as imperfective and thus with the more restricted use of R as argued for in detail in Chapter 2 (and summarized as II above).

3.2.3. Semantic compatibility of Aktionsart and temporal ordering

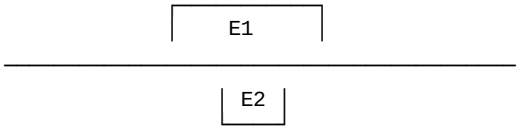
3.2.3.1. Telicity. The discussion in the previous section, and the representation for (8)a as the second event *being included in the result state* of the first event, suggests that telicity is a relevant parameter for the purpose of interclausal temporal ordering. However, to claim that [+ telic] clauses *can* get a sequence interpretation is not to explain *why* they do so, for instance in (8)a. Suppose the reader only had access to the information that the two events in (8)a, /open the door/ and /walk to the bookcase/, both represented the concept of a [+ telic] situation. Then, besides the desired interpretation represented in (10)a, other interpretations, such as those represented in (10)b-d below, are not automatically excluded. (In order not to complicate the issue any further, I am leaving out various other possibilities, such as relations of partial overlap).

(10) a. *sequence*

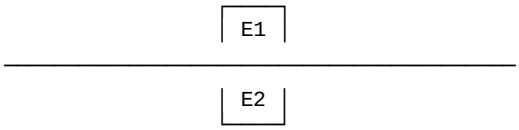


[11] However, as observed by Sandström (1993), there sometimes is narrative time movement *before* the result state is reached. In particular, this phenomenon arises when two situations are linked together by means of the coherence relation *response*, as in *She read the letter and it made her feel all warm inside*, where the warm feeling may start before the whole letter has been read. See section 3.4.2 on causality and compatibility.

b. *inclusion*



c. *simultaneity*



d. *reverse order*

The concept associated with two telic situations is indeed compatible with a sequence interpretation, as in (10)a, but it is equally compatible with a reading in which the second event is included in the first, as in (10)b, or vice versa. In addition, two telic situations might be simultaneous, as in (10)c, or they might even be interpreted in an order opposite to the order in which they are presented, as visualized in (10)d. All of these interpretations are semantically compatible with the Aktionsart concept of telic situations. In fact, we should not even *want* to exclude these possibilities given examples such as (11)a-c. At the level of Aktionsart, these sequences are classified as sequences of [+ telic] situations, like (8)a, and yet (10)b, (10)c, and (10)d are precisely what we need to represent the temporal interpretation of these sequences.

(11) a. *Moeder knipte de rafelige pitten van onze drie petroleumstellen recht* (E1). "Ziek is ziek", *merkte ze op* (E2). Ze legde niet eens even de schaar neer maar ging gewoon verder met knippen. (Frans Pointl, *De Aanraking*, p.9)
‘Mother was trimming (lit. cut straight) the frayed wicks of our three paraffin stoves. "If you’re ill, you’re ill", she remarked. She didn’t even put down the scissors, but just continued trimming.’

b. Suddenly, a weird sound could be heard. *John opened the door* (E1) to check the hallway *and Mary looked out of the window* (E2) to see if there was someone in the garden.

c. John fell (E1). Max pushed him (E2). (Moens 1987)

In (11)a, the situations referred to as E1 and E2 are both [+telic]. However, E2 is not temporally situated within the result state of E1. In fact, the continuation makes clear that this result state had not been reached when E2 took place. Instead, E2 has to be understood as included in E1; this construal was represented in (10)b. In (11)b, E1 and E2 are ordered with respect to the situation of the preceding sentence; both John's and Mary's action can be seen as a response to, and thus following, the situation of the first clause. E1 and E2 are themselves unordered with respect to each other, but the sequence is compatible with a reading in which they happened at roughly the same time, as was represented in (10)c. Finally, (11)c presents the standard example of reverse-order interpretation (see 1.2, and Chapter 6 for a detailed discussion); this sequence allows for a reading in which E2 in fact *preceded* E1, as represented in (10)d.

Thus, the parameter of telicity is relevant for temporal ordering as telic clauses can make the result state of a situation available as a possible frame of reference for the situation of the new clause, resulting in a chain of events which seems to be the *sine qua non* of narrative discourse. However, as the examples in (11) show, the Aktionsart parameter of telicity does not, in and by itself, constrain temporal interpretation; there is no semantic incompatibility of telicity and any temporal configuration. In principle, the initial state, the event-part, and the result state of such a telic event representation are all available as possible "sites of attachment" for a situation presented in the surrounding discourse. Constraints on temporal ordering in (11)a-c are provided by (a) grammatical aspect (see section 3.3), and (b) pragmatic incompatibility (see section 3.4), not by Aktionsart. Before turning to these two factors, I will briefly discuss the way in which the Aktionsart parameter of durativity constrains interclausal temporal ordering.

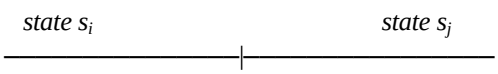
3.2.3.2. Durativity. Is it possible to define any constraints on temporal interpretation for telic clauses at the level of Aktionsart? It is if, in addition to telicity, we take into account the parameter of durativity, i.e. the distinction between accomplishments and achievements that was graphically represented in 3.2.2.1 as repeated below.

I Accomplishment ([+ change], [+ telic], [+ durative])

state s_i *activity* *state* s_j

———————//////////////———————

II Achievement ([+ change], [+ telic], [- durative])



Of the four temporal orderings represented in (10), there is one which is incompatible with the concept of an achievement represented in II. This is the case where another situation (either an accomplishment or another achievement) is included in the achievement, as represented in (10)b. This is a construal that is obviously compatible with the temporal structure of ([+ durative]) accomplishments, as can be seen in I (and was evidenced in example (11)a), but incompatible with the temporal structure of ([- durative]) achievements, as should be clear from II. If a situation is conceptualized as having no duration at all, then it obviously cannot include other situations: durativity is a necessary condition for temporal inclusion.[12] Thus, as the first clause in (8)a, repeated here as (12), presents an achievement, the situation of the second clause cannot be included in it.

(12) He opened the door and walked to the bookcase.

As represented in II above, the left bound of an achievement coincides with its right bound; thus, the first clause implies that the result state of opening the door was reached and the result state is therefore immediately available as a possible temporal location for the situation of the second clause. However, the durativity parameter rules out the inclusion reading (visualized in (10)b) without predicting the sequence reading of (12); the other temporal configurations presented in (10) are all compatible with the temporal structure of achievements.

Bartsch (1986) and Verkuyl (1989, 1993) provide counterarguments to the inclusion constraint on achievements. Bartsch (1986: 9) adduces examples such as (13) to illustrate her claim that there are no real punctual events; every point-like event can be expanded into an interval and thus be made accessible for other events.

[12] Even though accomplishments do have duration, such an inclusion interpretation is only marginally possible for accomplishments presented by means of a simple past in English. It is probably worth repeating here that in my view this is a matter of grammatical aspect, not Aktionsart (see 3.3).

(13) John was writing a letter, when Mary entered. *While she was opening the door*, she broke her little finger.

However, this example is not a counterexample to the theory that achievements are inaccessible, for the simple reason that the opening of the door as it is presented in the italicized clause in (13) is *not* an achievement, but an accomplishment. The fact that it is possible to present the situation by means of a progressive verb form (without necessarily giving rise to a repetitive interpretation (see Chapter 5)) and, moreover, to present it in a *while*-clause shows that the situation is not conceptualized as a punctual one. If anything, the example, therefore, illustrates that it is not possible to classify the predicate /open the door/ unambiguously as either an achievement or an accomplishment. This is impossible for two reasons.

First, some doors take a lot of time to open. Such doors may be atypical, but it does not prevent us from using the predicate /open the door/ to refer to the situation of opening them. In a well-known critique of the class of achievements, Verkuyl (1989, 1993) shows that /draw a circle/, one of Vendler's prototype examples of an accomplishment, may be used to refer to a momentary event (an achievement) in these times where one can draw a circle by hitting one single key on a keyboard.[13] This, however, is a manifestation of the rather common phenomenon that one can use the same lexical item to refer to qualitatively different situations, and it does not necessarily mean that the concept of a punctual situation is not a relevant linguistic category.

Second, even if we are talking about one and the same situation in extra-linguistic reality, we may conceptualize it as [- durative] in one context, but as [+ durative] in another. Thus, the entrance of Mary in the first sentence of (13) is presented as [- durative] (relative to, and from the perspective of, John writing the letter). This, however, does not prevent us from looking at the same situation from a different perspective, zooming in on it, and presenting it as [+ durative], in the next sentence (Ter Meulen 1995: 88 calls this "perspectival refinement"). It is of course true, as Bartsch and Verkuyl claim, that in actual fact there are no situations without duration (besides, possibly, the situations referred to by *start/finish* and the like), but this does not take away the fact that certain situations are conceptualized *as if* they were instantaneous, and that this has specific grammatical consequences (such as constraints on the choice of tense/aspect markers). Aktionsart is not an objective property of situations in the

[13] This aspect of Verkuyl's theory, and, in particular, the way in which he uses this example, has also been criticized by Mittwoch (1991), Vetters (1996), Krifka (1996), and Vogel (1997).

real world; it is a property of the way situations are conceptualized and presented linguistically (cf. 1.3.1).

3.3. The contribution of aspect

3.3.1. From Aktionsart to aspect

The third problem with the Vendlerian approach, which is a crucial impediment to postulating any connection between Aktionsart and interclausal temporal ordering, has to do with the role of grammatical aspect. It is one of the major claims of this thesis that temporal ordering in discourse is really a matter of aspect and pragmatic reasoning, not Aktionsart.

The crucial role of grammatical aspect can be elucidated by applying the DRT rules in (7), repeated here as (14), to Dutch.

(14) a. If Aktionsart S_i is [- telic], then $R_i = R_{i-1}$
b. If Aktionsart S_i is [+ telic], then $R_i > R_{i-1}$

Following Vendler and Hinrichs, the italicized sentences in (15) and (16) (= (11)a) should be classified as presenting accomplishments (the situations have a well-defined endpoint), and, according to Hinrichs's rule as reformulated in (14)b, should introduce a new point of reference into the discourse representation. In the terminology introduced in the previous section, clauses presenting telic situations, such as the italicized clauses in (15) and (16), make reference to the result state of such situations, which is then available as a possible site of attachment for the situation of the following clause, resulting in a sequence reading.

(15) Het was een herfstige woensdagmiddag in november en ik was nog geen uur terug uit school of ik verveelde me. Buiten woei het en af en toe viel er wat regen. *Willem las een boek*, Makkie werkte in de garage aan een perpetuum mobile en Chrisje sliep. (Connie Palmen, *De Vriendschap*, p. 60)
'It was an autumnal wednesday afternoon in november and it took less than an hour after getting home from school for me to get bored. Outside, the wind was blowing and now and then some rain fell down. Willem was reading a book, Makkie was working at his perpetuum mobile in the garage, and Chrisje was asleep.'

(16) Ik had mijn Frans niet goed geleerd; de grote repetitie zou die ochtend op een blamage uitlopen. Ziek worden was een prima oplossing. *Moeder knipte de rafelige pitten van onze drie petroleumstellen recht*. "Ziek is ziek", merkte ze op. Ze legde niet eens even de schaar neer maar ging gewoon verder met knippen. (Frans Pointl, *De Aanraking*, p.9)
'I had not studied my French well; the big test that morning would end in disgrace. Getting ill was the perfect solution. Mother was trimming (lit. cut straight) the frayed wicks of our three paraffin stoves. "If you're ill, you're ill", she remarked. She didn't even put down the scissors, but just continued trimming.'

However, these predictions are not borne out. The italicized clause in (15) describes what is going on at a particular moment in time. In this respect, the accomplishment *Willem las een boek* ('Willem was reading a book') in (15) is not interpreted any differently from the states and activities presented in the surrounding discourse, such as *Makkie werkte in de garage* ('Makkie was working in the garage') and *Chrisje sliep* ('Chris was sleeping'). The fact that in (16) the accomplishment presented in the italicized clause, *Moeder knipte de pitten [...] recht* ('Mother was trimming the wicks'), overlaps the surrounding situations is clear from the sentence following the italicized one, which explicitly states that the mother continued her activity of trimming the wicks (the result state of which was thus clearly not reached).

For the theory advanced in this thesis, such examples do not constitute a problem. It is grammatical aspect rather than Aktionsart, thus perfectivity rather than telicity, which constrains interclausal temporal ordering; perfective aspect cannot be used to present a situation holding at a point in time (1.3.2). As the Dutch past tense allows for imperfective readings (1.5, and Chapter 6), it is compatible with an inclusion reading of the sort exemplified in (15) and (16). (Note the progressive in the English translations of these fragments.) However, before turning to the role of grammatical aspect, I will discuss an alternative solution to the problem constituted by (15) and (16), which does not require the notion of grammatical aspect, and show why it is inadequate to account for the data.

3.3.2. An alternative solution

There is an alternative way to explain the occurrence of cases such as (15) and (16) which would not require us to abandon Aktionsart-based rules for temporal ordering such as those in (14). The argument for (15), for instance, could run as

follows: whereas in English /read a book/ is conceptualized as an accomplishment ([+ telic]), in Dutch /een boek lezen/ is conceptualized as an activity ([-telic]). If this were correct, then the interpretation of (15) (and, *mutatis mutandis*, (16)) would, of course, be correctly predicted by the DRT-inspired rules in (14).

Verkuyl (1993), who does not distinguish between lexical and grammatical aspect, has in fact suggested that the difference between English and Dutch which manifests itself in (15) and (16), and in his own examples in (17), is of just such a lexical-semantic nature.

(17) a. Judith ate a sandwich.
b. Judith at een boterham.
Judith ate a sandwich
'Judith ate/was eating a sandwich.'

Even though Verkuyl (1993: 9) at one point claims that both (17)a and (17)b are, in his terminology, terminative, he has to admit at a later stage that for some speakers of Dutch, not including himself, (17)b allows for a durative reading, i.e. a reading in which Judith is involved in eating a sandwich but does not necessarily finish eating the whole sandwich (p. 313). The difference of opinion is, according to Verkuyl, "a lexical matter, so a matter of taste" (p. 315). In particular, in the lexicon of some Dutch speakers, and most English speakers, the verb "eten"/"to eat" requires a theta-role for totally affected object, whereas in the lexicon of other speakers the theta-role is indeterminate with respect to completion. The same line of reasoning could be applied to the verb "lezen" (to read) in (15) (cf. Verkuyl 1993: 314), and "rechtknippen" (lit. to cut straight) in (16).[14] What seemed to be accomplishments in (15) and (16) would then end up in a different Aktionsart category, namely that of the (atelic) activities, and the rules in (14) would be saved.

It is not in itself implausible to assume that one and the same situation may be conceptualized as an activity in one language and as an accomplishment in another language (even though it may be questioned if in such cases these languages are really talking about one and the same situation; cf. 1.3.1). McClure (1990), for instance, argues that Italian "arrossire" (to blush) refers to an achievement, whereas Dutch "blozen" (to blush) refers to an activity. So why not accept such a lexical-semantic line of reasoning to save the Aktionsart-based rules in (14) for Dutch? An important difference between these cases and, for instance,

[14] Thus, the fragment given in (16) shows that even a complex verb such as "rechtknippen" allows for a durative reading in Dutch, contrary to what Verkuyl assumes about comparable complex verbs such as "opeten" (to eat up).

the case discussed by McClure is that it does not suffice to say that /read a book/ is conceptualized as an accomplishment in English and as an activity in Dutch. If we accepted this, then the interpretation of (15) would now be correctly predicted, but other cases, such as (18), would not.

(18) Willem las het boek en bracht het daarna terug naar de bibliotheek.
'Willem read the book and then returned it to the library.'

Verkuyl's idea that, at least for some native speakers, the theta-role required by the Dutch verb "lezen" is indeterminate with respect to completion is, of course, compatible with both (15), where there is not necessarily completion, and (18), where there probably is. However, we would have to postulate such an indeterminate theta-role for every other Dutch verb that combines with an object to form an accomplishment as well (and, in my view, not just in the lexicon of *some* speakers). This is, of course, possible, but it misses out on an important generalization at the level of grammatical aspect: the English simple past is perfective when it presents an event (as in (17)a), whereas the Dutch past tense can be either perfective (as in (18)) or imperfective (as in (15) and (16)).

Applying my analysis of grammatical aspect in Dutch and English, as first presented in 1.5, to Verkuyl's examples in (17), it can be noted that these sentences are aspectually equivalent only when they are used in narrative discourse to present a sequence of events from the past. In non-narrative discourse, Dutch would use a present perfect, as in (19), to present, in Verkuyl's terms, a "terminative" situation of eating a sandwich (see Chapter 4).

(19) Judith heeft een sandwich gegeten.
Judith has a sandwich eaten
'Judith has eaten/ate a sandwich.'

In this discourse mode, the Dutch sentence in (17)b prefers a "durative" reading as the domain of "terminative" aspect is covered by the present perfect. The "durative" reading of (17)b can be captured in English only by using a progressive, as in (20), because the expression of imperfective aspect by means of a progressive verb form is obligatory in English if the clause presents an event; Dutch may use a locative verb formation in such cases, as in (20)b (Chapter 5).

(20) a. Judith was eating a sandwich.
b. Judith was een boterham aan het eten.
Judith was a sandwich at the eat
'Judith was eating a sandwich.'

In my view, none of this implies that at the level of the lexicon Dutch has a different conceptualization of /eat a sandwich/ than English does. For the purpose of cross-linguistic comparison it therefore seems more fruitful to separate the lexical-semantic level of Aktionsart, at which /read a book/ and /eat a sandwich/ are events as much in Dutch as they are in English, from the level of grammatical aspect, i.e. the aspectual value of language-specific formal categories such as the progressive and the present perfect, but also the "aspectually unmarked" simple tenses.[15]

Thus, rather than maintaining that (14) is the correct generalization, and then accounting for exceptions by assuming lexical differences between languages and, even, between individual speakers, the relevant generalization, using Hinrichs-style R, would be the one given in (21).

(21) a. If aspect S_i is [- perfective], then $R_i = R_{i-1}$
b. If aspect S_i is [+ perfective], then $R_i > R_{i-1}$

In addition to generalizing over the English and Dutch data, (21) also generalizes over Hinrichs categories of "accomplishments and achievements" ([+ perfective]), on the one hand, and "states [...] and events described in the progressive" ([- perfective]), on the other hand (cf. the quotation from Hinrichs in 3.2.1).[16]

As noticed by Brinton (1988: 15) "grammars of English [...] virtually neglect the aspectual significance of the [simple] form" and the same is true of many studies within the field of tense and aspect (the same point is made by Bickel 1996 and Vogel 1997). Such a move is understandable, and perhaps even justified, if one restricts the discussion to English, where, in the case of the simple

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[15] As noted in 3.1, it has become customary, both within the framework of DRT and outside of it (Vlach 1981, Moens 1987, Caenepeel 1988, Sandström 1993, Ter Meulen 1995), to define grammatical aspect *in terms of* lexical aspect. Thus, perfectives introduce events, whereas imperfectives introduce states. This is another way of saving the Aktionsart-based rules for interclausal ordering, but it blurs the distinction between grammatical aspect and Aktionsart beyond recognition. As for Dutch sentences such as (17)b we would then have to say that this sentence can present either a state or an event and I do not think that this terminology reflects the correct level of analysis. Specifically, such a move walks all over the abundance of studies within aspectology, starting with Agrell (1908), that have pointed out the importance of distinguishing between the property of telicity (Aktionsart) and perfectivity (aspect) (cf. 1.3.1).

[16] The category of activities is problematic in this respect. Hinrichs groups them with "states [...] and events described in the progressive", but non-progressive activities seem to pattern with his "accomplishments and achievements" precisely because the expression of imperfective aspect has grammaticalized for activities in English (see Chapter 5). Thus, the main clause in *When the bell rang, Mary swam* (as opposed to *Mary was swimming*) gets an inchoative (left-bounded) reading and therefore moves narrative time forward (Smith 1991; Sandström 1993).

past, telicity (Aktionsart) and perfectivity (aspect) go hand in hand. An analysis in terms of grammatical aspect, however, makes a greater generalization possible and is, therefore, more explanatory than one in terms of Aktionsart; in addition, it facilitates cross-linguistic comparison.

In Chapter 1 (section 1.3.2), the following definitions were given of imperfective past and perfective past:

(22) a. Imperfective past presents a situation as holding at a time of reference preceding the point of speech (E,R<S).
b. Perfective past presents a bounded situation occurring before the point of speech (E<S).

Following the principle of semantic compatibility (1.4.1), forms expressing perfective and imperfective aspect allow for every temporal interpretation that is not incompatible with the semantic characterizations given in (22). In the following section, I will address the question in what way the clause-level semantics of aspect, as given in (22), is compatible with the interpretation of interclausal temporal relations (as formalized, for instance, in the DRT-type rules given in (21)).

3.3.3. Compatibility of aspect and temporal ordering

3.3.3.1. Imperfective aspect. With regard to imperfective aspect, the discourse rule in (21)a and the semantic characterization in (22)a both capture the fact that a situation presented by means of an imperfective needs to be linked to a point of reference that is independently provided by the surrounding context or situation; imperfective forms do not themselves introduce a time. As for the compatibility of imperfective aspect and interclausal temporal ordering, the semantics in (22)a does not convey anything about the temporal relation between situations that are presented in consecutive sentences of the discourse. It is only when a situation mentioned explicitly by means of a perfective form in the preceding sentence or clause is taken to provide the point of reference required for the interpretation of the imperfective that the imperfective gives rise to a reading of temporal inclusion. However, as first discussed in section 1.4.2, the reference time may also be provided by (a) a situation different from the one mentioned explictly in the preceding sentence, (b) extra-linguistic context, or (c) an inferred perception moment. The latter might be located "just after" the event of the preceding sentence, which is a possibility that Hinrichs allows for (3.2.1), but it may also be located "just before" that situation, as in the reverse-order reading of (23).

(23) John switched on the light. It was too dark to read.

In all these cases, the interpretation of the temporal relation between, on the one hand, the situation presented by means of the imperfective verb form and, on the other hand, the situation mentioned explicitly in a preceding clause or sentence, may be further constrained by our knowledge of pragmatic compatibility, or rather by our knowledge of pragmatic *in*compatibility (see 3.4). If there is no such pragmatic incompatibility either, then the temporal interpretation remains undecided. In (23), for instance, our knowledge of the world does not fully determine the temporal relation between the explicitly mentioned situations. Thus, the sequence in (23) does not exclude the possibility that it was still too dark to read after John switched on the light; and indeed, the sequence in (24) is perfectly coherent as well.

(24) John switched on the light. It was still too dark to read.

It is, in particular, the fact that an inferred point of perspective may fulfill the role of reference time which makes it difficult to postulate any direct relationship between imperfective aspect and interclausal temporal ordering. This was already observed when discussing the sequences repeated here as (25).

(25) a. He opened the door. It was pitch dark in the room.
b. He switched off the light. It was pitch dark in the room.
c. He opened the door of the fridge. The inside was brightly lit.

In (25)a-c, the second sentence presents a situation holding at a point of perspective "just after" the opening of the door in the first sentence; whether or not the situation overlaps with the event of the first sentence is to be determined on the basis of pragmatic (in)compatibility.

As long as the anaphoric requirement semantically imposed by imperfective forms (see (22)a) is met, a sequence of sentences containing imperfective forms may even present a chain of consecutive events. The concept of a situation "holding at a point in time" may seem incompatible with the inference of a "narrative" chain of situations, but such cases do occur and can be explained by assuming that a perspective point is then fulfilling the role of reference time required for the interpretation of the imperfective forms. Clearly, such examples constitute a major problem for any approach that wishes to relate interclausal temporal ordering to aspect. I will illustrate this phenomenon by first discussing examples that contain unambiguously imperfective forms, namely the French

imparfait and the English progressive respectively, and then turn to the question what this means for the interpretation of the aspectually unmarked past tense in Dutch.

The use of the (explicitly imperfective) *imparfait* in (26) does not prevent the reader from understanding these situations as having happened in sequence.[17]

(26) Dehors, sur le trottoir opposé, le docteur Karvé marchait parmi les flaques de soleil en traînant le sac de golf. Mme Karvé *sortait* à son tour de l'immeuble. Elle portait des lunettes noires qui contrastaient avec son teint de blonde. Le docteur *ouvrait* la portière arrière de la voiture et *lançait* d'un geste épuisé le sac de golf sur la banquette. Il *s'asseyait* au volant. Mme Karvé, toujours nonchalante, *se glissait* à côté de lui. La voiture *démarrait* lentement. (Patrick Modiano, *De si braves garçons*, Gallimard, 1986.)
'Outside, at the pavement across the street, doctor Karvé was walking amidst the sun spots while dragging his golf bag. Mrs Karvé, in turn, was leaving the building. She was wearing black glasses, contrasting with her blond appearance. The doctor was opening the back door of the car and was throwing the golf bag in the back seat with a tired gesture. He was sitting down behind the wheel of the car. Mrs Karvé, casual as always, was lowering herself in the seat next to him. The car was driving off slowly.'

The italicized instances of the *imparfait* in this fragment present situations that are sequentially ordered with respect to one another. Pragmatic incompatibility clearly rules out a simultaneity reading: one has to open the back door of the car in order to be able to throw a golf bag in the back seat; one has to sit behind the wheel of the car in order to be able to drive off. Thus, the sequence of events presented in (26) forms a chain of events of the kind that is often considered to constitute the foreground of a narrative text (cf. 3.1) and nonetheless these situations are presented by means of imperfective forms, which are often assumed to present backgrounded information.

The use and interpretation of the imperfective forms in (26) can be explained only by taking into account that these situations are all presented from the point of view of a story character who watched them happening while looking out into the street from the window of a cafeteria (as is clear from the discourse preceding the fragment) (cf. Tasmowsky-De Ryck 1985a, 1985b). The situations are all

[17] I owe this example to Nelleke de Jong-van den Berg (pers. comm).

(momentarily) frozen at consecutive moments in time that can be identified with the moments at which the story character looked out of the window and saw them happening. Thus, the idea of temporal sequence, which in (26) follows from pragmatic incompatibility, is not *semantically* incompatible with imperfective aspect.

The same phenomenon is observed by Ehrlich (1987) for the past progressive in English. Ehrlich argues that Hopper's notion of backgrounding, which includes such notions as temporal overlap and simultaneity, is not sufficient to explain the distribution of the past progressive in English literary texts. In particular, if events from the narrative foreground are described from a character's point of view, the past progressive can be used without giving rise to a reading of simultaneity; such progressives do move narrative time forward (cf. Dowty 1986). Ehrlich provides the examples, among others, given in (27) and (28).

(27) Looking at his hand he thought that if he had been alone dinner would have been almost over now; he would have been free to work. Yes, he thought; it is a terrible waste of time. The children were dropping in still. 'I wish one of you would run up to Roger's room.' *Mrs Ramsay was saying*. (Virginia Woolf, *To the lighthouse*, Penguin Books, 1964)

(28) But what an extraordinary night. She felt somehow very like him - the young man who had killed himself. She felt glad that he had done it; thrown it away while they went on living. *The clock was striking*. (Virginia Woolf, *Mrs Dalloway*, Penguin Books, 1964)

It is clear from the discourse preceding the final, italicized clauses of these fragments that the events are being described from the perspective of a story character; by using a progressive in the final clause, this perspectivized mode of presentation is maintained. The situations of Mrs Ramsay talking in (27) and the clock striking in (28) are presented as holding at a point of perspective in the past; they are thus presented by means of imperfective forms but this does not prevent these clauses from moving narrative time forward.

The *imparfait* in French (26) and the past progressive in English (27) and (28) are marked for imperfective aspect. They are used to introduce new situations into the discourse; to reconcile this with the semantics of imperfective aspect, as given in (22)a, we assume that there is a point of perspective functioning as point of reference. In the case of a Dutch narrative sequence presenting a chain of situations by means of the past tense, the idea of these forms receiving an imperfective reading may seem somewhat far-fetched; after all, the Dutch past tense allows for perfective readings in narrative discourse (1.5.3 and Chapter 6) and perfective aspect is typically used to present such a sequence of events from

the past. Still, the fragments in (26)-(28) suggest that we should allow for the possibility that the Dutch past tense may receive an imperfective reading even in those cases where it presents a chain of situations; in Dutch, other linguistic means will have to be employed to trigger the perspectival interpretation which in (26)-(28) is conveyed by the use of explicitly imperfective forms (De Jong-van den Berg in prep.).

Evidence for the fact that the Dutch past tense indeed allows for such readings is provided by the possibility of using the Dutch past tense in combination with *nu* ("now") when presenting an event. An example of this is constituted by the italicized clause in (29) (taken from Van As 1993).

(29) Nu stonden ze in de rij, *nu gingen ze de poort in*, nu waren ze bij de kapstokken. De tweede bel. Goed, dat ze er nog niet was; de anderen zouden denken dat ze ziek was geworden van gisteren. (Marga Minco, "De Tekening", in: *Verzamelde verhalen*, editie 1985, p. 64-65)
'Now they were waiting in line, now they were entering the gate, now they were at the coathooks. The second bell. Good thing she wasn't there yet; the others would assume that yesterday's events had made her sick.'

It has been observed for French and English that using *maintenant* ('now') and *now* in combination with a past tense is possible only when the past tense is imperfective; thus, it is felicitous in French with an imparfait, and in English when the clause either presents a state or contains a progressive (cf. the use of a progressive in the English translation of (29)). Given an anaphoric analysis of imperfective aspect (see (22)a) and assuming that *maintenant/now* in such cases refers to a point of reference in the past (which is then interpreted as a point of perspective), it is not at all surprising that this use of *now* is restricted to imperfectives. As (29) shows, the Dutch past tense is compatible with *nu* ('now') when it presents an event. This suggests that the past tense in the italicized clause of (29) receives an imperfective reading. As *nu* refers to the "nu" of the narrative world and thus provides an instance of shifted deixis (cf. Chapter 2), this use of the imperfective is in fact highly comparable to the "perspectivized" use of the imperfectives illustrated in (26)-(28); the three occurrences of *nu* ('now') in (29) refer to consecutive moments in the past at which the story character realized that a certain situation was holding.[18] Once again, the imperfective interpretation of

[18] Pragmatic incompatibility of the situations presented rules out a reading in which the different occurrences of *nu* ("now") all refer to the same (perspective) moment in the past; the latter reading would arise if the situations were pragmatically compatible (see 3.4.2.1).

the past tense in the italicized clause of (29) is not incompatible with interpreting the situation as one in a sequence of situations.

It is, in particular, the perspectival potential of imperfective forms (cf. Landeweerd 1998; De Jong van den Berg in prep.) which makes it very difficult to formulate any generalizations about the temporal ordering of explicitly mentioned situations for imperfective forms; given a perspectivized interpretation, imperfective forms may even be used to present a sequence of (left-bounded) situations. The sequence reading clearly does not follow from the semantics of imperfective forms, but it is compatible with it if these forms receive a perspectivized reading - thereby fulfilling the "anaphoric" requirement imposed by the semantics of imperfective aspect as given in (22)a.

3.3.3.2. Perfective aspect. When consecutive clauses present situations by means of perfective forms, then the semantics of perfective aspect, repeated here as (30) (=(22)b), does at the very least not *exclude* a sequence reading.

(30) Perfective past presents a bounded situation occurring before the point of speech (E<S).

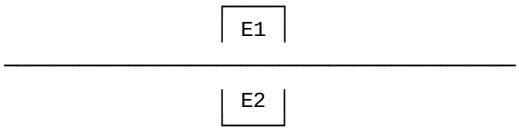
In the previous subsection, it was noted that a sequence reading is not excluded for a succession of clauses containing imperfective forms either, but there is a qualitative difference between the two cases. The semantics of imperfective aspect requires situations to be linked to a time of reference that is independently provided by the surrounding discourse. Since this is a semantic property of imperfective aspect, this is true also when pragmatic incompatibility rules out a simultaneity reading (as in (26) and (29)). In such cases, the situation of the preceding clause cannot provide the time of reference at which the new situation is holding; as imperfectives are semantically compatible only with an interpretation in which there is such a reference time, we then need to infer some other time, such as a point of perspective, to arrive at an adequate interpretation. As the semantics of perfective aspect, as given in (30), involves one dimension only, namely the E-S dimension, successions such as (31) can be given a sequence reading *without any additional anchoring being required*.

(31) John came into the room, said hi to Mary and sat down on the couch.

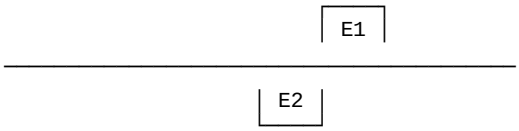
However, the semantics of perfective aspect do not *impose* a sequence reading on sentences such as (31). A sequence reading is, of course, semantically compatible with perfective aspect, but other readings are too. For instance, two bounded situations may be simultaneous, as represented in (32)a (= (10)c), or the

second one may have occurred *before* rather than *after* the first one, as represented in (32)b (= (10)d).

(32) a. *simultaneity*



b. *reverse order*



In the course of this study, we have already encountered cases of perfective forms that are in fact interpreted precisely as represented in (32)a and (32)b. For instance, the situations presented in the italicized clauses of (33) happened at roughly the same time (see (32)a) and the situations in (34)a and (34)b are interpreted in "reverse-order" (see (32)b).

(33) Suddenly, a weird sound could be heard. *John opened the door* to check the hallway *and Mary looked out of the window* to see if there was someone in the garden.

(34) a. John said that Mary pushed him.
b. John fell. Mary pushed him.

These data show that we need to take into account the additional constraints imposed by:

I. *Syntactic environment*. The temporal interpretation of complement clauses, as in (34)a, is more constrained than that of consecutive main clauses, as in (31), (33) and (34)b. In particular, complement clauses do not allow for forward-shifted readings (see 2.2.2.4).

II. *Discourse type*. The temporal interpretation of consecutive clauses in narrative discourse, as in (31), is more constrained than in non-narrative discourse; the reverse-order reading of (34)b is not available in narrative discourse (Caenepeel & Moens 1994).

III. *Pragmatic compatibility*. Knowledge about incompatibility may rule out a simultaneity reading, as in (31); if there is no incompatibility, then there is not necessarily sequence, as is evidenced by (33).

Thus, the claim that perfective verb forms present situations that happened in sequence and, moreover, in the order in which they are presented only holds for *un-embedded clauses*, which are used *in narrative discourse* to present situations that are *pragmatically incompatible*. The specific interpretation of complement clauses as opposed to main clauses (I) was discussed at length in Chapter 2.[19] The contribution of discourse type (II) and pragmatic (in)compatibility (III) will be the topic of the final section of this chapter.

3.4. From semantics to pragmatics

3.4.1. Discourse type

3.4.1.1. Imperfective aspect and discourse type. In my analysis, imperfectives need to be linked to an independently provided time of reference; in the case of imperfective *past*, this reference time is obviously to be located in the past, see (35).

(35) E,R < S

Being part of their semantics, the "anaphoric" dimension (E,R) of imperfectives is there in both narrative and non-narrative discourse. The nature of what provides the reference time may differ depending on discourse type. In narratives, the reference time will typically be provided by an event mentioned explicitly in the preceding sentence, or else by a perspective moment "just before" or "just after" that event (see 3.3.2.1.). In non-narrative discourse, the additional extra-linguistic context may provide the reference time. It may be any moment that is identifiable for both speaker and addressee; in my discussion of the non-narrative use of Dutch (36), for instance, I suggested that some clicking sound heard by speaker and addressee could provide a sufficient condition for the use of an imperfective.

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[19] It was argued there that the lack of a forward-shifted reading is not imposed by syntax, but follows from (a) aspect, and (b) pragmatic incompatibility. On the role of discourse type for understanding the use of tense in complement clauses, see 1.5.4.2, and Chapter 6.

(36) Ik draaide het gas uit.
I turned the gas off
'I was turning off the stove.'

The mechanism of anchoring to an independently provided reference time, however, is the same in both discourse types and, therefore, the distinction between narrative and non-narrative discourse does not have significant consequences for the interpretation of imperfectives.

3.4.1.2. Perfective aspect and discourse type. For the category of perfective past, the distinction between narrative and non-narrative discourse is more dramatic. First, Dutch uses different forms in narrative and non-narrative discourse to express perfective past: the domain of perfective past in non-narrative discourse is covered by the present perfect (section 1.5.3.1 and Chapter 5); in narrative discourse, the domain of perfective past is covered by the unmarked past (section 1.5.3.2 and Chapter 6). English uses the simple past as a perfective past in both narrative and non-narrative discourse.

Furthermore, discourse type affects the specific interpretation of the category perfective past (see also Sandström 1993 and Caenepeel 1995). Recall that the combination of past tense and perfective aspect resulted in the semantic representation given in (37).

(37) E < S

Thus, the situation is situated before the point of speech without necessarily being linked to some contextually provided reference time in the past (as in the case of *im*perfective past (E,R<S)) or in the present (as in the case of present perfect (E<S,R)). Instead, to capture the notion of perfectivity, our informal semantic characterization of perfective aspect (see (30)) requires the situation to be viewed as a "bounded" one. Being a semantic property of perfective aspect, this is, of course, true in both narrative and non-narrative discourse. However, depending on the specific properties of either discourse type, the focus may be either on the left-bound (starting point) of the situation or on the right-bound (end point) of the situation.

I. Perfective past in non-narrative discourse: right boundedness

In non-narrative discourse, situations from the past are viewed from the perspective of the here-and-now; situations may be linked to the point of speech

independently of other situations from the past. Thus, in this discourse type, perfective past forms may be used to present all-new information. In English, where the domain of perfective past is covered by the simple past in both narrative and non-narrative discourse, the simple past allows for such indefinite readings. In Dutch, where the present perfect covers the domain of perfective past in non-narrative discourse (Chapter 4), one has to use a present perfect to arrive at this reading, cf. (38)a and (38)b (see 2.3.2 for discussion).

(38) a. I hear that John found a diamond in his garden. (Stowell 1993)
b. Ik hoor dat John een diamant in zijn tuin heeft gevonden.
I hear that John a diamond in his garden has found
'I hear that John found/has found a diamond in his garden.'

Looking at the past from the perspective of the present, non-narrative discourse can be said to have the right bounds (the end points) of past situations in view. Right boundedness implies, of course, left boundedness: situations that *ended* at some moment before S also *began* at some point in time. Thus, situations presented by means of a perfective past in non-narrative discourse are interpreted as a "completed whole", i.e. as bounded to the left *and* to the right. This is not surprising for the category of achievements, like /find/ in the embedded clause of (38), because the left bound and the right bound of an achievement coincide regardless of aspect or discourse type (see 3.2.3.2). It is, however, also true of accomplishments, like /write a letter/ in (39), where lexical content does not as such impose a bounded reading.

(39) a. I hear that John wrote a letter to the queen.
b. Ik hoor dat John een brief aan de koningin geschreven heeft.
I hear that John a letter at the queen written has
'I hear that John wrote/has written a letter to the queen.'

Consequently, such sentences do not allow a continuation of the discourse in which it is stated that the situation did not end before S (*... *and he may still be writing it now*).

Given that in non-narrative discourse the perfective past independently links situations to the point of speech, this discourse type does not constrain the interpretation of the temporal relation between situations presented by means of a perfective past, such as the two situations presented in (40) (Caenepeel & Moens 1994).

(40) a. John fell. Max pushed him.

b. John is gevallen. Max heeft hem geduwd.
John is fallen Max has him pushed

In these sequences, the interclausal temporal ordering is not constrained by syntax or by the semantics of perfective aspect either (cf. 3.3.2.2). As for pragmatic compatibility, our knowledge of the world excludes neither a sequence reading nor a reverse-order reading. (The only situation which is perhaps somewhat hard to imagine is one in which being pushed and falling happen simultaneously.) Consequently, the temporal interpretation of (40)a and (40)b is undetermined by either linguistic or general pragmatic knowledge; it will have to be inferred on the basis of further context.[20]

II. Perfective past in narrative discourse: left boundedness

In narrative discourse, one is not primarily concerned with the independent relationship between a situation from the past and the present moment. Situations are located in time with respect to other situations from the past rather than independently with respect to the point of speech. In particular, every situation should be coherently linked to a situation presented in an immediately preceding clause or sentence. The narrative *as a whole* will be taken to precede some, either real or fictional, event of telling (or writing), but in the process of interpreting narrative discourse, this deictic dimension is of secondary importance; in the terminology used by Sandström (1993) and Caenepeel (1995), the point of speech is "bracketed".

In narrative discourse, perfective aspect signals left-boundedness rather than right-boundedness. Situations presented by means of a perfective past in narrative discourse happened - or rather, more accurately, *started to* happen - in the order in which they are presented to the listener or reader. This can be motivated by the Gricean maxim *Be orderly!* (Grice 1973); if a cooperative story-teller wants to present situations in reverse-order, then he will mark them as such, for instance by the use of temporal adverbials or past perfect forms (see next section). Given that such clues are lacking in English (40)a, this sequence will in narrative discourse receive an iconic reading (in which Max pushed John *after* he fell down). Dutch uses a simple past to express perfective past in narrative discourse (Chapter 4 and Chapter 6), which is why Dutch (41) can only receive an iconic

[20] In spoken discourse, intonation will help to make clear whether the sequence reading or the reverse-order reading is the intended one.

reading. (In non-narrative discourse, where a reverse-order reading is allowed, Dutch uses a present perfect to express perfective past, as in (40)b.)

(41) John viel. Max duwde hem.
John fell Max pushed him

Perfective aspect imposes a left-bounded reading in narrative discourse irrespective of lexical content. As for events, I argued above that in non-narrative discourse, the event presented in (42)a (cf. (39)) is understood to be a "completed whole". In narrative sequences such as the one exemplified in (42)b, however, the focus is on the left-bound of the situation: John started to write a letter *in response to* and thus *following* Mary's entrance.

(42) a. John wrote a letter.
b. When Mary entered, John wrote a letter.

As for stative predicates, it has been documented for many languages that the combination of (marked) perfective aspect and a state results in an inchoative reading. Examples from French are given in (43)a and (43)b (taken from Smith 1991: 255, 257), containing a *passé composé* and a *passé simple*, respectively.

(43) a. Paul a été fâché quand Jeanne a cassé l'assiette.
Paul has been angry when Jeanne has broken the plate
'Paul was angry when Jeanne broke the plate.'
b. Marie sut la réponse à onze heures.
Marie knew the answer at eleven hours
'Marie knew the answer at eleven o'clock.'

The inchoative interpretation of states seems to be a typically narrative phenomenon: the state is not situated, "from beginning to end", before the point of speech, independently of other events. Instead, the point in time at which the state started to hold is focused upon and the temporal location of this point is typically established in relation to other events from the past (which caused the state), as in (43)a, or given explicitly by means of an adverb within the clause, as in (43)b. For perfective states it is, therefore, even more clear than for perfective events that it does not suffice to say that perfective aspect presents situations as a "completed whole"; the state of Paul being angry and of Mary knowing the answer in (43) are not "completed" in any way. The states in (43)a and (43)b, just like the event in the main clause of (42)b, are bounded to the left, but left-boundedness does not entail right-boundedness. Crucially, the question whether

situations such as those presented in (42)b and (43) are *still* holding at the point of speech simply does not arise when processing narrative discourse; the point of speech is "bracketed" (see above) and an answer to the question is irrelevant to the establishment of coherence.

In narratives, whether or not the situation overlaps with events in the *following* discourse, i.e. whether or not the event is bounded to the right in addition to being bounded to the left, is not a matter of aspect: it is dependent on (i) Aktionsart, and (ii) pragmatic compatibility. If a non-durative situation (a Vendlerian achievement) is bounded to the left, then it is automatically bounded to the right (see section 3.2.3.2). For durative situations (Vendlerian states, activities and accomplishments), however, this depends entirely on pragmatic compatibility with situations presented in the following discourse. The notion of pragmatic compatibility will now be discussed in the following and final section of this chapter.

3.4.2. World knowledge

3.4.2.1. Pragmatic incompatibility. In this thesis, I have so far discussed semantic constraints on temporal ordering imposed by tense (Chapter 2), Aktionsart (3.2) and aspect (3.3). I have argued that aspect, rather than tense or Aktionsart, is crucial for understanding the way in which situations are linked to situations presented in the surrounding discourse. However, as was amply discussed in 3.3, the semantics of perfective and imperfective aspect do not enable us to determine temporal relations in a straightforward way. For instance, while it is true that imperfective forms inherently express simultaneity, they do not necessarily express simultaneity with a situation explicitly mentioned in an immediately preceding (or following) clause (3.3.3.1). Likewise, the left-bound of a situation presented by means of a perfective form cannot always be understood as following the right-bound of the situation in the preceding clause (3.3.3.2). Thus, the interpretation of temporal ordering between situations mentioned explicitly in the consecutive clauses or sentences of the discourse is underdetermined by the linguistic information provided by aspect. The only thing we can say is that the interpretation has to be compatible with the semantic characterizations proposed and these characterizations do not convey information on interclausal temporal ordering.[21]

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[21] Thus, I do not subscribe to the view, put forward in radically different frameworks by Hopper (1979) and Kamp & Rohrer (1983), that the meaning of aspect *is constituted by* its discourse function where this discourse function is formulated in terms of the foreground/background distinction or interclausal temporal ordering; see also 1.4.

In addition to the constraints, however weak, imposed on interpretation by the requirement of *semantic* compatibility, the interpretation may be further constrained by *pragmatic* incompatibility. In this thesis, I use the term pragmatic incompatibility to indicate two rather different kinds of non-semantic constraints on interpretation: a reading may be ruled out either because it is not supported by rules of cooperative language use, or because it is not supported by knowledge of the discourse world. In this section, I will illustrate the relevance of both types of pragmatic incompatibility for the issue of interclausal temporal ordering.

I. Incompatibility with rules of cooperative language use

So far, I have mentioned two instances of the former type of pragmatic incompatibility. First, I used this notion in Chapter 2 to explain the lack of a so-called forward-shifted reading for sentences such as English (44)a and Dutch (44)b.

(44) a. John told me that he read that book.
b. John vertelde me dat hij dat boek gelezen heeft.
John told me that he that book read has
'John told me that he read/has read that book.'

These sentences do not allow for a reading in which the reading of the book, presented in the embedded clause, followed the situation of John telling us about it, presented in the matrix clause. In my view, this reading is not ruled out by the semantics of tense or aspect. The embedded past tense in English (44)a and the embedded present perfect in Dutch (44)b situate the situation before "now", but not necessarily before the time of John's speaking; a simultaneity reading (of the embedded situation holding at the time of the matrix clause) is arguably ruled out by the perfective reading of the English simple past and the Dutch present perfect. The forward shifted reading, however, is semantically compatible with the information provided by tense and aspect; it is ruled out because it is not compatible with the assumption that the speaker is obeying the rules of cooperative language use. As was argued in 2.2.2.4, by choosing the form of indirect speech to report an utterance, the speaker commits himself to giving a truthful report of the original utterance. If the reported speaker, at some moment in the past, made a prediction, then the reporting speaker cannot present the *prediction* that an event e_i would happen as the *fact* that e_i did happen (even if he has independent evidence to that effect).

A second instance of this kind of pragmatic incompatibility was mentioned in the previous section: the conventions of narrative discourse do not allow for

reverse-order interpretation of perfective forms as long as there are no linguistic clues to that effect (Caenepeel & Moens 1994). The reason that I consider this pragmatic constraint to be of a similar kind to the one that we need to rule out the forward-shifted reading in (44), is that both can be traced back to a Gricean maxim; literally so in this case, namely *Be orderly!*, cited below.

> If what one is engaged upon is a narrative (if one is talking about events), then the most orderly manner for a narration of events is an order that corresponds to the order in which they took place (Grice 1981: 186)

In relevance-theoretic terms (Sperber & Wilson 1986), an iconic presentation of situations, where linguistic order reflects the order in which these situations happened in "the world", arguably reduces processing effort on the part of the hearer; in the relevance framework, the hearer is entitled to assume that arriving at the intended interpretation does not cost him more processing effort than is minimally required. Put differently, if the speaker intended to communicate that the situation of the second sentence actually happened *before* the situation of the preceding sentence, then he should have and would have said so.[22]

II. Incompatibility with knowledge of the discourse world

At this point, it should be noted that adding up the semantic and pragmatic constraints on temporal ordering discussed thus far still does not enable us to *predict* the interclausal temporal relation in even the most simple narrative sequence, such as the one that this thesis started out with, repeated here as (45).

(45) John opened the door and walked to the bookcase.

Anyone who reads this sentence will interpret it such that John first opened the door and then walked to the bookcase. The past tense that is used in both clauses obviously does not help us much to arrive at this reading; all it does is situate both situations "before now" (Chapter 2). The fact that the situation of opening the door in the first clause is conceptualized as non-durative (Aktionsart) rules out a reading in which some other situation is included in it (3.2.3.2); thus, walking to the bookcase cannot have taken place *during* the opening of the door. At the level of grammatical aspect, both situations are interpreted as "bounded" as the English

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[22] In Sperber & Wilson's framework, the greater effort that is needed to process a reverse-order sequence should be offset by greater contextual effects, for instance by the fact that the second sentence answers a question raised by the first (Carston 1993; Wilson & Sperber 1993); cf. section 7.2.

simple past receives a perfective reading in event-clauses (1.5.2 and Chapter 6). Given the narrative context, we can be more specific and say that both situations are "bounded to the left" (3.4.1.2), but this does not as such give us any clue about how they should be ordered with respect to each other (3.3.3.1). Finally, we may say that a reverse-order reading, in which John *first* walked to the bookcase and *then* opened the door, is ruled out by pragmatic incompatibility of the sort discussed above.[23] After applying the semantic and pragmatic constraints discussed thus far to (45) there are still two interpretations compatible with this sequence: either John opened the door and *at the same time* walked to the bookcase, or he walked to the bookcase after he opened the door. Thus, the question that remains to be answered is: what is it that rules out the simultaneity reading in (45)?

The pragmatic constraint on the processing of narrative discourse may rule out a reverse-order reading, as discussed above, but it does not, and should not, rule out a simultaneity reading. Indeed, two situations presented in consecutive sentences of a narrative discourse may well have happened simultaneously; our analysis should not predict, for instance, that the two situations in (46) (= (33)) necessarily happened in the order in which they are presented.

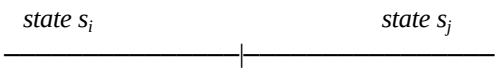
(46) Suddenly, a weird sound could be heard. *John opened the door* to check the hallway *and Mary looked out of the window* to see if there was someone in the garden.

In my view, the simultaneity reading is ruled out in (45) (but not in (46)) only because we know that a person cannot (normally) at the same time open a door and walk to a bookcase; I will therefore say that these situations are *pragmatically incompatible* (cf. Eberle 1992; Ter Meulen 1995), even though this incompatibility is clearly of a different sort than the one discussed under *I.* above. Now, if and only if two events are incompatible in this sense, then the second event, at least in narrative discourse, is temporally located *after* the first one; incompatibility makes narrative time move forward. If there is no such incompatibility blocking a simultaneity reading, then, in the absence of other constraints, the temporal

[23] Interestingly, a reverse-order reading is also ruled out here by the presence of *and* (cf. *John fell and Max pushed him*, which does not allow for a reverse-order reading as easily as *John fell. Max pushed him.*) See Bar-Lev & Palacas (1980) and Carston (1993).

ordering between situations may remain undecided.[24] In (46), for instance, we can infer that both John's opening the door and Mary's looking out of the window took place *after* they heard a weird sound; we infer a causal relation between these situations and causality constitutes a specific instance of incompatibility (see below). The ordering of the two situations with respect to each other, however, is undetermined by either semantics or pragmatics. Returning to the sequence in (45), we may observe that while the second situation is incompatible with the first situation, it *is* compatible with the result state of the first situation. In section 3.2.2.1, I visualized the concept of a [+telic] situation or, more specifically, an achievement, such as /open the door/ in (45), as repeated in (47).

(47) Achievement ([+ change], [+ telic], [- durative])



In section 3.3, I argued that the typical relationship between telic situations in narrative discourse is one in which a situation is temporally located, as it were, in the result state of the situation presented in a preceding clause (Moens 1987); I showed that this seems to be the motivation for the DRT rule, first discussed in 3.2.1, that event clauses introduce a new point of reference into the discourse representation. My analysis does, of course, not require us to give up this attractive notion of inferred result states functioning as the cement that keeps telic situations in narrative discourse glued together. The fact that the two clauses in (45) present telic situations is not irrelevant for the way in which we link these situations together - after all, the interpretation has to be compatible with the semantic information provided by Aktionsart - but it in no way *determines* the temporal interpretation. In my view, the second situation starts in the result state of the first situation because of the pragmatic constraints imposed by (a) our common sense knowledge of the compatibility of situations (which rules out the simultaneity reading), and (b) the conventions of narrative discourse (which rule out backward movement of narrative time in the absence of explicit markers). Combined with the semantic constraints imposed by aspectuality (i.e. telicity), this results in a chain of situations of the type that is often considered a defining

[24] Two specific instances of compatibility, with specific consequences for interclausal temporal ordering, are (a) identity (where consecutive clauses present the same situation), and (b) whole-part relations (where consecutive clauses each present a sub-part of an event presented in a preceding clause).

feature of narrative discourse (Labov 1972; cf. Hopper's 1979 notion of *foreground*, see section 3.1).

Occasionally, a situation is incompatible not just with the situation presented in the preceding clause, but also with the result state of that situation. An instance of this can be found in the fragment cited in (48).

(48) Als het muisje tracht weg te lopen heeft ze het met een forse sprong weer te pakken en slingert het met uitgestoken klauw omhoog. *Bebloed ligt het grijze diertje tussen de struiken.* (Frans Pointl, *De kip die over de soep vloog*, p.10)
'When the little mouse tries to get away she grabs it with a fierce jump and slings it up into the air. Blood-covered the little grey animal is lying in the bushes.'

The state of the mouse lying in the bushes, presented in the italicized clause, is incompatible with the event of the cat throwing it up in the air, presented in the immediately preceding clause. It is also incompatible with the result state of the latter event, which would be something like the mouse being in the air. The italicized clause, therefore, enables us to infer that the result state of the preceding situation has come to an end (is "bounded to the right"). The notion of incompatibility thus explains the fact that, compared to the more typical narrative sequence exemplified in (45), we experience something of a "temporal gap" between the situations presented in (48).

The discussion of (48) illustrates a further phenomenon, that is important specifically for an understanding of the temporal ordering of situations presented by means of imperfective forms: pragmatic incompatibility can provide the boundaries of a situation that is not semantically bounded. In (48), the information provided by the italicized clause supports the inference that the result state of the preceding telic event is bounded to the right. The same mechanism provides us with a way to determine the bounds of a situation presented by means of an imperfective form. Recall that imperfective forms express that a situation is holding at a contextually provided moment in time, without expressing anything about the ordering with respect to situations presented in the surrounding discourse. Thus, the state of the room being dark in the second clause of (49)a-c is interpreted as holding at a point of reference just before or just after the event of the preceding clause.

(49) a. He switched on the light. It was pitch dark in the room.
b. He switched off the light. It was pitch dark in the room.
c. He opened the door. It was pitch dark in the room.

In (49)a, we assume that John switched on the light *because* it was pitch dark in the room. The point of reference at which the state is holding is arguably provided by an inferred point of perspective "just before" the switching on of the light. Now, the state of the room being pitch dark is pragmatically incompatible with the light being on, thus with the result state of the first event. Therefore, we assume that the event of the first sentence constitutes the right bound of the state; the state is bounded to the right. In (49)b, the same incompatibility (of the light being on and the room being pitch dark) rules out a reading in which the state of the second sentence was already holding before the switching off of the light; the state in (49)b is, therefore, bounded to the left.[25]

As for (49)c, this sequence is often treated as the standard example of a state temporally overlapping a preceding event. Admittedly, it is very likely that it was already dark in the room before John opened the door, but this is not given by either linguistic or extra-linguistic knowledge. The most readily available interpretation is one in which the state of the room being dark is holding at a point of perspective "just after" the event of the opening of the door. Now, it may or may not have been dark in the room *before* John opened the door but, unlike in (49)a and (49)b, in (49)c there is no reading ruled out by pragmatic incompatibility. Pragmatic constraints on interpretation are similar to semantic ones in the sense that it is only *in*compatibility which can help us narrow down the number of possible interpretations (cf. the discussion of (46)).

The sequence in (49)c enables me to make a further, crucial point about the nature of pragmatic incompatibility. As I said, this sequence is sometimes used as a non-problematic example of a state overlapping an event. However, at least two interpretations of (49)c other than the one that I just discussed are possible. First, (49)c could be seen as claiming that John opened the door in order to let some light in. On this reading, it should be temporally interpreted just like (49)a. Second, however difficult it might be to construct such a context, (49)c is compatible with a reading in which the opening of the door caused the room to be dark. (Suppose, for instance, that some mechanism had been developed in order to confuse unexpected visitors.) On the latter reading, the temporal interpretation of (49)c is like that of (49)b. The point is that pragmatic (in)compatibility cannot be treated as lexical knowledge (Molendijk 1993, 1996; Vet 1995) or as general

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[25] It has been argued that such "bounded states" are actually some sort of event and, therefore, do not constitute counterexamples to Aktionsart-based rules for temporal ordering (Caenepeel 1989; Declerck 1991: 128; Kamp & Reyle 1993: 509). However, the interpretation of bounded states is still rather different from the interpretation of "normal" events (cf. Chapter 4, section 4.3.1.2 on the "bounding" effect of the perfect). Also, more importantly, the boundedness of states can only be determined on the basis of pragmatic knowledge and, therefore, it cannot be maintained that it is the aspectual information that *determines* the temporal ordering in such cases (cf. Boogaart 1995).

knowledge of the world (Lascarides & Asher 1991); rather, it is part of our knowledge of *the world of the discourse* (Boogaart 1995).

3.4.2.2. Compatibility versus Causality. To conclude this section, I need to say something about how my notion of (in)compatibility relates to the notion of coherence relations and, in particular, causal relations that have been used in pragmatic accounts of interclausal temporal ordering.

Such approaches often start off from the very convincing claim that the determination of temporal relations as such does not make a sequence of clauses into a discourse. Indeed, it is trivially true that all situations that have happened, are happening, or will happen in the world are temporally related to one another. However, when two situations are presented to us in the consecutive sentences of a text, we expect them to be related in more than just this trivial way (Moens & Steedman 1988; Caenepeel 1989; Lascarides 1992; Boogaart 1991b, 1993; Sandström 1993; Wilson & Sperber 1993). Now, the gist of these proposals is that all these *non-temporal* coherence relations, which we need anyway to arrive at a coherent representation of the interpretation of the text, have systematic consequences for the way in which the situations are *temporally* related. From this perspective, it makes more sense to put our effort into understanding the computation of coherence relations than into understanding temporal relations because the latter will follow more or less automatically from the former.

The most obvious example is constituted by the coherence relation of causality. The relevance of causal reasoning for the issue of interclausal temporal ordering is apparent from several examples that were already discussed in this chapter. Thus, we assume that the state in the second sentence of (50)a did not start to hold until the event of the first sentence had taken place because (a) we infer a causal relation between these situations, and (b) causes necessarily precede their effects.

(50) a. He switched off the light. It was pitch dark in the room.
b. John fell. Max pushed him.

In (50)b, it is, likewise, causal information which enables us to interpret this sequence in the correct way; it is only when we interpret the situation of Max pushing John as having caused John to fall that this sequence receives a reverse-order reading. In the proposal put forward by Lascarides and others, it is assumed that in these sentences, causal laws *overrule* the interpretation that is inferred on the basis of aspectual information alone, which would be temporal overlap for the

state in (50)a and iconic sequencing for the events in (50)b (Lascarides 1992; Lascarides & Asher 1993; Lascarides & Oberlander 1993).[26]

Others have generalized the role of causality in examples such as (50)a and (50)b to include *all* cases of temporal sequence in discourse. Thus, it is argued that even in cases such as my example (45), repeated here as (51), the temporal sequence reading follows from a kind of causal relationship.

(51) John opened the door and walked to the bookcase.

The causality involved in (51) is obviously of a weaker kind than the one in (50). Nonetheless, it is the opening of the door (and thus the being in the room) which *enables* John to walk to the bookcase. Therefore, one could argue for an inferential account of all cases, in which causality - thus including weak causal relations such as enablement - implies sequence, whereas the absence of any causal relation implies temporal overlap or, at least, no sequence. The most radical proposal in this direction is presumably the one made in the relevance-theoretic framework by Wilson & Sperber (1993) and Moeschler (1993), who no longer make any reference to aspectual information (see also Boogaart 1991b, 1993). This is witnessed, for instance, in the following generalization proposed by Moeschler:

(52) Soit la séquence de discours $((e_1,t_i), (e_2,t_j))$. Il y a coréférence temporelle entre e_1 et e_2 ssi il n'existe pas de relation causale entre e_1 et e_2, soit $t_i = t_j$ ssi non (cause (e_1,t_i), (e_2, t_j)). (Moeschler 1993: 53)[27]

Caenepeel (1989, 1995) and Sandström (1993) are less radical in the sense that, while acknowledging the crucial role of causality, they do take into account the different contextualization of states and events. What these proposals have in common with the relevance-theoretic approach, and what makes them different from mine, is that they assume that it is (different sorts of) causality, rather than incompatibility, which makes narrative time move forward. An obvious advantage of all these proposals is that they make use of a notion, namely causality, that is stronger than my notion of compatibility. Most importantly, causal relations

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[26] The *defeasible reasoning* approach to temporal interpretation is incompatible with my own proposal in so many respects that I will refrain from listing them all here; cf. Boogaart (1998).

[27] Given a discourse sequence $((e_1,t_i), (e_2,t_j))$, there is temporal coreference of e_1 and e_2 iff there does not exist a causal relationship between e_1 and e_2: ti = tj iff not (cause (e_1,t_i), (e_2,t_j)).

qualify as coherence relations and, therefore, the use of causality to explain interclausal temporal ordering is in keeping with the intuition, presented above, that temporal relations are not a sufficient condition for coherence. (Compatibility relations are not a sufficient condition for coherence either.) However, I believe my notion of compatibility to be useful precisely because it is a weaker notion than causality, which is necessary to explain all instances of interclausal temporal ordering. I will substantiate this claim by briefly discussing two classes of examples which are problematic for the causal approach, summarized as Moeschler's generalization in (52) above, but which do not constitute a problem for my approach in terms of compatibility: I. Causality without sequence, II. Sequence without causality.

I. Causality without sequence

The fact that information about causality is not sufficient to explain temporal ordering across sentences in discourse is clearest when a situation presented by means of an imperfective is seen as the cause of another situation (irrespective of the question whether the latter situation is presented by means of an imperfective or a perfective). Examples such as (53) illustrate that when an "imperfective situation" is seen as causing another situation, this does not exclude the possibility that cause and effect temporally overlap.

(53) It was pitch dark in the room. I could not see a thing.

According to Moeschler (see (52)), there can only be "temporal coreference" if there is no causality. In (53), there *is* a causal relation between the room being dark and my inability to see anything, but this does not prevent us from interpreting both states as holding at precisely the same (perspective) point in time. The aspectual information provided by these sentences obviously contributes to this specific interpretation; states standardly receive an imperfective reading in English (1.5.2.2 and Chapter 6) and imperfectives need to be linked to an independently provided moment in time (1.3.2.1), which, *given compatibility of the situations involved*, may be the same moment for consecutive imperfectives. A radical pragmatic account of interclausal temporal ordering that does not take aspectuality into account, such as the one advocated by Moeschler, seems to be on the wrong track just as much as an exclusively "decoding" account of temporal ordering that only takes aspectuality into account, like traditional DRT (3.2.1).

Let us now consider a sequence of an event and a state in which the state in the second sentence is interpreted as providing the motivation for the event in the first sentence. Compare (54)a and (54)b.

(54) a. He took an aspirin. He had a headache. (Lascarides & Oberlander 1993)
b. He switched on the light. It was pitch dark in the room.

In both (54)a and (54)b, the second sentence can be interpreted as providing the reason for John taking an aspirin and switching on the light, respectively. This causal inference, however, does not tell us anything about how the situations should be ordered in time. If we are to determine whether or not the states temporally overlap the events of the first sentences, we still need our knowledge of compatibility, or rather *in*compatibility. In (54)b, we can regard the event of the first sentence as providing the right bound of the state in the second sentence (as was discussed with respect to (49)a). In (54)a, there is no incompatibility, so we will not conclude that John's headache was over as soon as he took the aspirin (but this reading is not excluded). In both examples, there is a similar kind of causality at work but this does not help us much in determining the temporal ordering of these situations - the latter is ultimately determined on the basis of incompatibility.

II. Sequence without causality

The second group of examples that obviously constitutes a problem for the causal approach to temporal ordering is constituted by instances of sequenced events that are not related by anything that can remotely be called a causal relationship.

I will illustrate how the causal approach would (have to) handle such cases, with reference to Wilson & Sperber's (1993) discussion of (55)a and (55)b.

(55) a. He took out his key and opened the door.
b. He took out his handkerchief and opened the door.

To explain the interpretation of (55)a, Wilson & Sperber assume not only that the hearer has access to his separate "encyclopaedic entries" for keys and doors, but also that there is a schema available which combines information about keys and doors. Using this schema, the hearer can infer that, for instance, the key was used to open the door. The situation is more complicated for (55)b, and, to some extent, for my own example in (46), repeated as (56).

(56) John opened the door and walked to the bookcase.

There does not seem to be a ready-made, causal schema available for the interpretation of these sequences. If we were to assume that there is such a

schema connecting the situations in (55)b and (56), then we would also have to assume that there is a schema connecting opening a door and *every* possible act one could perform after opening a door. Wilson & Sperber's intuition about example (55)b is that, in the absence of a context which is suggestive of a causal connection, "the best hypothesis might simply be that these are two unrelated events that happened at about the same time" (1993: 20). I do not agree with this. The interesting fact about so-called unrelated situations in narratives is that - in the absence of any causal inference - we still tend to interpret these as having happened in sequence. This is especially the case, it seems, if the sentences are not conjoined by *and*, as in (57).

(57) He took out his handkerchief. He opened the door.

I do not believe that it is an adequate description of the interpretation of (55)b, (56) and (57) to say that these situations happened "at about the same time". The only interpretation available seems to be one that, from a strictly temporal perspective, is exactly the same as the one for the "causally" connected situations in (55)a. In my view, this is because common sense tells us that one person cannot do many things at the same time, so that, in the absence of information to the contrary provided by the context, we take these actions to be incompatible.

The characterization "at about the same time" might be appropriate to describe the temporal interpretation of (58), where there is no incompatibility of this sort ruling out such a simultaneity reading. (Unless, of course, the context tells us that Mary needs John's handkerchief to open the door.)

(58) John took out his handkerchief. Mary opened the door.

It is true that temporal relations are not a sufficient condition for coherence. When confronted with (55)b, (57), and even (58), it is, therefore, tempting to interpret them such that John (or Mary) used the handkerchief to open the door (for instance, in order not to leave fingerprints on the door handle). My point is that inferring a causal connection is not a necessary condition for understanding the *temporal* ordering of such situations (cf. Rosales Sequeriros's 1995 claim that people have no problem extracting temporal information from incoherent texts).[28]

[28] This is supported by research into language development which shows that children acquire temporal relations before they acquire causal ones (Bloom 1991).

In my view, all we can say about the relationship between such situations as those in (55)b, (56) and (57) is that the second situation is incompatible with the first one, but not incompatible with the result state of the first one. And, at least from the viewpoint of temporal ordering, this is also all we *need* to know about them.

3.5. Conclusion: Aspectuality and temporal ordering

In this chapter, I investigated the semantic constraints on interclausal temporal ordering as imposed by aspectuality. It turned out that the temporal interpretation of discourse is to a large extent underdetermined by aspectual information. However, the results of this chapter can also be formulated in a more positive way.

First, while aspect may not fully determine temporal ordering, this chapter offers quite a clear picture of what the category of aspect *does* do. Situations presented by means of perfective and imperfective forms are systematically contextualized in different ways and the resulting temporal interpretation is qualitatively different (see sections 3.3.3.1 and 3.3.3.2 for imperfective and perfective aspect respectively).

Second, aspectual information was shown to interact with pragmatic constraints imposed by our knowledge of (a) discourse type (3.4.1), and (b) the compatibility of situations (3.4.2). Combining semantic and pragmatic constraints enabled me to explain the temporal interpretation of many cases, while at the same time leaving room for indeterminacy - which is in accordance with our intuitions (see also section 7.3 for discussion).

The explanatory value of the analysis of aspect offered in this chapter for issues of temporal ordering will be further substantiated in part II of this thesis. There, I will show how aspect is formally expressed in Dutch and English, and how such an aspectual analysis enables me to account for the contrastive data on temporal ordering first presented in Chapter 1. The contrastive analysis illustrates the importance of the semantic constraints on interclausal temporal ordering discussed in part I: if English and Dutch sequences containing unmarked past forms occasionally receive different interpretations, then these interpretations cannot be ascribed exclusively to pragmatic constraints imposed by context or world knowledge.

Part II

Aspect
in Dutch and English

4 The present perfect

4.1. Introduction

In this chapter, I will investigate the question to what extent the semantic domain of PERFECTIVE PAST is covered by the present perfect in Dutch and in English.[1] Thus, this chapter does not aim at providing an all encompassing account of the English and the Dutch present perfect. The same is true of my treatment of the English progressive and the Dutch locatives in Chapter 5. Indeed, starting off from a universal-semantic distinction like the PERFECTIVE/IMPERFECTIVE distinction does not seem like the ideal means to arrive at a description of the semantics of these categories (Boogaart 1994). However, an answer to the question to what extent these forms are used to express aspectual information is a necessary condition for understanding the aspectual interpretation of the unmarked tenses and thus for an explanation of the contrastive data to be provided in Chapter 6.

Whereas the semantic notion of PERFECT should be carefully distinguished from the notion of PERFECTIVE aspect (4.2.1), it has been argued for many languages that the formal category labeled *present perfect* is sometimes used - or, diachronically, has come to be used - to express PERFECTIVE PAST (4.2.2). After having cleared my own path through this terminological minefield (in section 4.2), I will address the difference between the English and the Dutch present perfect, distinguishing between PERFECT (4.3) and PERFECTIVE (4.4) uses of these categories.

I will argue that the English present perfect never expresses (merely) PERFECTIVE PAST, whereas the Dutch present perfect can be used as a PERFECTIVE PAST, but exclusively so in non-narrative discourse. This is visualized in *Table 4.1*.

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[1] As a way to minimize confusion, I will use SMALL CAPITALS throughout part II of this thesis to indicate semantic notions, as opposed to language-specific formal categories.

Table 4.1. The expression of perfective past in Dutch and English.

Aspect	PERFECTIVE PAST	
Mode	Non-narrative	Narrative
English	*Simple Past*	
Dutch	*Present Perfect*	*Simple Past*

4.2. The semantics of PERFECT and PERFECTIVE

4.2.1. PERFECT versus PERFECTIVE

One of the many terminological problems in the study of aspect is constituted by the confusion of the two notions of PERFECT and PERFECTIVE. This was acknowledged as early as 1891 by Streitberg, who was one of the first to apply the notions of PERFECTIVE and IMPERFECTIVE aspect, which were coined in the study of the Slavic languages, to the Germanic languages.[2] Streitberg already warned against the view that "the perfective Aktionsart is in any way related to the formal category called the perfect" [my translation, RB] (1891: 71) (cf. Boogaart 1994). Now, even though PERFECT and PERFECTIVE are in fact "in some way" related (see next subsection), it will be useful, in order not to add to the terminological confusion, to start out the discussion by stating the difference between the semantic notions of PERFECT and PERFECTIVE.

The difference between these notions can perhaps be most clearly demonstrated by comparing the three English sentences in (1).

(1) a. He was reading a book : *IMPERFECTIVE PAST*
b. He read a book : *PERFECTIVE PAST*
c. He has read a book : *PRESENT PERFECT*

The semantics of IMPERFECTIVE PAST and PERFECTIVE PAST, as exemplified by (1)a and (1)b, were amply discussed in the preceding chapters; I will repeat the main points here for ease of comparison.

Given that the English progressive covers a subdomain of IMPERFECTIVE aspect (see Chapter 5), sentence (1)a can be used to illustrate the semantics of

[2] After Jakob Grimm (see Binnick 1991: 141).

IMPERFECTIVE aspect: (1)a presents the situation of reading a book as holding at a contextually provided moment in time (R); as (1)a contains a *past* progressive, this point of reference is to be located before now. (The anaphoric analysis of IMPERFECTIVE aspect was argued for especially in section 2.3.4.)

The English simple past in (1)b receives a PERFECTIVE reading because it presents an event (see Chapter 6): (1)b presents the situation of reading a book as a bounded situation occurring before the point of speech. When (1)b is used in a non-narrative context, the situation of reading a book will be interpreted as a completed whole, without necessarily being linked to some previously given reference time. In narrative discourse, the situation is viewed as bounded to the left and will have to be coherently linked to some situation in the preceding discourse (see 3.4.1.2).

If we use the term *perfective* aspect to characterize the interpretation of English (1)b as opposed to (1)a, it will be clear that we need another term to distinguish between the interpretation of (1)b and (1)c. The latter pair of sentences exemplifies the difference between PERFECTIVE and PERFECT. Now, what constitutes this difference?

The semantic characterization of the forms used in (1)b and (1)c as PERFECTIVE *PAST* and *PRESENT* PERFECT already indicates the crucial difference between them: a PRESENT PERFECT makes a claim about the present, a PERFECTIVE PAST makes a claim about the past. In fact, we should say that a PRESENT PERFECT makes a claim about both the past and the present, whereas a PERFECTIVE PAST exclusively makes a claim about the past. More specifically, a PRESENT PERFECT presents two situations rather than one: in addition to referring to a situation in the past, like a PERFECTIVE PAST does, it refers to a state holding at the present moment.

As states standardly receive an imperfective interpretation (see Chapter 5), they require an antecedent (1.3.2.1 and 2.3.4); in the case of the present tense, this antecedent role is fulfilled by the moment of speech. This results in the representation in (2)a, which captures the fact that the PRESENT PERFECT presents two situations, one of which receives an imperfective reading and is thus interpreted as holding at a point in time (= S).

(2) a. PRESENT PERFECT : E1 < E2,R,S
b. PAST PERFECT : E1 < E2,R < S

For the sake of completeness: the *PAST* PERFECT, as represented in (2)b, likewise presents two situations, namely a state holding at a contextually provided reference point *in the past*, and a situation preceding that state.

The exact nature of the state holding at a past or present moment, which constitutes part of the semantics of PERFECT (but not of the semantics of PERFECTIVE), is not unproblematic; it will be amply discussed in the following sections. It suffices to note here that in the case of telic situations, such as for instance /read a book/ in (1) and /leave/ in (3) below, it can be identified with the result state of the past situation.

(3) a. ? John has left, but he has come back home later.
b. John left but he came back home later.

Thus, the PRESENT PERFECT in the first clause of (3)a asserts that the result state of leaving (not being there) is holding at the present moment; therefore, it is semantically incompatible with the second clause which informs us about John's coming back. The PERFECTIVE PAST in the first clause of (3)b is not incompatible with the information that John is still absent at the moment of speaking, but it is also not incompatible with the information that he came back later, as is evidenced by (3)b.

The representation in (2)a can be abbreviated as the essentially Reichenbachian (1947) characterization of the PRESENT PERFECT in (4)c, which facilitates comparison with the other categories as given in (4)a and (4)b.

(4) a. IMPERFECTIVE PAST : E,R < S
b. PERFECTIVE PAST : E < S
c. PRESENT PERFECT : E < S,R

Irrespective of how the semantic difference between the simple past in (1)b and the present perfect in (1)c should exactly be described, there clearly is a difference between the two categories which motivates the use of the terms *perfective* and *perfect*, respectively. However, matters are complicated by the fact that in some languages, including Dutch, the formal category which we label *present perfect* is sometimes used to express the *semantic* notion of PERFECTIVE PAST in (4)b rather than PRESENT PERFECT in (4)c. I will try to clarify this issue by taking a diachronic perspective in the following subsection.

4.2.2. From PERFECT to PERFECTIVE

It has been argued for perfects in many, genetically unrelated, languages that the semantics of this category systematically develops according to the path outlined in (5) (Benveniste 1968; Harris 1982; Bybee & Dahl 1989; Bybee, Perkins & Pagliuca 1994; Lee 1993; Schwenter 1994).

(5) RESULTATIVE < PERFECT < PERFECTIVE < PAST

For both English and Dutch, it is assumed that the origin of the *have*-perfect is a construction consisting of "have"/"hebben", an object, and a past participle, in which "have"/"hebben" can be characterized as a lexical verb roughly meaning "to possess" and the past participle modifies the object by referring to a state the object is in. Thus, the origin of present-day English (6)a would be a sentence that is structurally like (6)b, the meaning of which can be paraphrased as "I have a fence that is in a state of painted-ness". (See for English, among many others, Traugott 1992: 190ff.; Denison 1983: 340ff; Parsons 1990; Carey 1994; for Dutch Kern 1912; Bosker 1961; Duinhoven 1988; De Haan 1991, and Van der Wal 1992.)

(6) a. I [$_{VP}$ [have [$_{V}$ painted]] [$_{NP}$ a fence]]
b. I [$_{VP}$ [$_{V}$ have [[$_{NP}$ a fence] [$_{A}$ painted]]]

In present-day Dutch we find constructions such as (7) (cf. Janssen 1986) that are composed of exactly the same formal elements as the *have*-perfect and that allow for the interpretation that was represented in (6)b.

(7) Ik heb het boek gebonden.
I have the book bound
'I have bound the book.'/'I have a bound copy of the book.'

In fact, as is witnessed by the two possible renderings in English, Dutch (7), in addition, allows for the PERFECT reading represented in (6)a; both readings are exemplified in (8).

(8) a. (Ik heb *Het Bureau* in paperback, maar) hij heeft het boek gebonden.
'(I have *Het Bureau* in paperback, but) he has a bound copy of it.'
b. (Mijn exemplaar van *Het Bureau* hing helemaal uit elkaar, maar) hij heeft het boek (in)gebonden.
'(My copy of *Het Bureau* was falling apart, but) he has bound the book.'

In Dutch, there is no formal element distinguishing between the two readings, unlike in English where they correspond to a difference in word order.

In (6)b and (7), the finite form and the participle can be said to refer to the same time (Janssen 1986): the state of being painted, or bound, is simultaneous with the time of the finite form and in the case of "possessive" (6)b and (7), this is the *only* time relevant for the interpretation of the sentence. The temporal interpretation of (6)b and (7) can be represented as that of any other stative clause containing a present tense, see (9).

(9) E,R,S

Still, being a past participle, "painted" in (6)b and "gebonden" (‘bound’) in (7) imply that there was an action in the past, thus anterior to the time denoted by the finite form, that resulted in these particular states.

To understand the re-analysis from (6)b to (6)a (of, for that matter, the synchronic difference between Dutch (8)a and (8)b), it is generally assumed that the focus of attention shifted away from the result state holding at the moment of speech to the action in the past (see already Kern 1912: 11). This action preceded, of course, its result state and, by implication, also the time denoted by the finite form. The combination of "have" and "painted" in (6)b is then reinterpreted as the verb complex "have painted", as in (6)a, expressing, among other things, anteriority with respect to the time denoted by the finite form, i.e. the moment of utterance.[3]

However, at this stage of its development, anteriority is not the only thing the construction expresses. Indeed, it presents the result state of a past event as holding at the present moment and we can therefore refer to it as a *resultative*; it can be represented as in (10).

(10) $E < Result_E,R,S$

Use of the resultative was obviously restricted to telic predicates, which refer to situations having a clearly identifiable result state associated with them (see 3.2.2.1). Typically, however, these processes of formal grammaticalization (structural re-analysis) go hand in hand with a semantic development from more concrete to more abstract meaning, i.e. semantic generalization. Thus, after the re-

[3] The notion of being in a state resulting from a preceding action was also present in the construction "to be"/"zijn" + past participle, in which "be" functioned as a copula and the (adjectival) participle modified the subject, rather than the object as in the have-construction. In English, all verbs in the *be*-perfect have been gradually moving over to the *have*-perfect, "a process that was effectively completed in the nineteenth century" (Denison 1983: 295). In Dutch, both types of perfect co-exist. The development of the *be*-construction into a perfect and beyond arguably followed the same path as the *have*-perfect and I will not distinguish between them in this section.

analysis sketched in (6) had taken place, use of the construction could generalize to include cases in which there is no concrete, clearly definable result state holding at the present moment. At this stage, the construction is no longer a real resultative, but enters the domain of the perfect (see Nedjalkov & Jaxontov 1988: 15-17 for a clear discussion of the differences; see also 4.3.1 below).

In its perfect function, the construction still indicates that some special relationship, in addition to mere anteriority, exists between the event in the past and the situation holding at the moment of utterance; this includes, *but is not restricted to*, the cases in which the result of a past situation is still valid at the moment of speaking. It also includes, for instance, all cases that have been labeled "current relevance" in the literature on the English present perfect. In my analysis, this aspect of the perfect is captured by assuming that in addition to referring to an event in the past, as expressed by the past participle, it presents a state holding at the present moment, as expressed by the finite verb form; the point of speech functions as point of reference for the interpretation of the (imperfective) finite verb form. In the previous subsection, this was represented as in (11).

(11) E1 < E2,R,S

At this stage, participles could develop for verbs presenting atelic situations (see, for instance, Van der Wal 1986: 67), such as the activities in (12)a, and the states in (12)b.

(12) a. Hij heeft gewandeld, gedanst, gezwommen, etc.
He has walked danced swum
'He has walked, danced, swum, etc.'

b. Hij is ziek geweest, is leraar geweest, etc.
He is sick been, is teacher been
'He has been sick, has been a teacher, etc.'

These participles do not refer to a concrete result state holding at the present moment, but the occurrence of these atelic events in the past may nevertheless be currently relevant in some other way.[4]

Now, the development from PERFECT (as in (11)) to PERFECTIVE (as in (13)) is a logical next step in the grammaticalization chain attested for perfects, which was given in (5).

[4] In English, perfects of atelic predicates, in addition, allow for continuative readings (*I've been ill for two days now*), i.e. the situation started in the past and is still holding at the present moment. The continuative perfect in English will be discussed in section 4.3.2.

(13) E < S

In very global terms, this chain can be characterized as a development from a present tense, i.e. the semantic contribution of the finite verb form, to a past tense, i.e. the semantic contribution of the past participle. The development from resultative to perfect, discussed above, already shows a weakening of the semantic contribution of the finite verb form, namely from denoting the only time relevant for the interpretation of the clause to denoting merely "some" relationship between a situation in the past and the situation holding at the current speech time. The development of a PRESENT PERFECT into a PERFECTIVE PAST tense boils down to the past dimension becoming the *only* dimension of the present perfect.

Such a development has been documented, for instance, for (esp. southern) German and for French, where the *passé composé* has completely taken over the function of the earlier past perfective (*passé simple*) - at least in spoken discourse. In the following sections, I will show to what extent the present perfect in Dutch and in English covers the semantic domains of PERFECT (4.3) and PERFECTIVE (4.4). I treat these as different, but clearly interrelated, readings that may, or may not, be compatible with the semantics of the present-day present perfect in Dutch and in English; I will not make claims about the actual diachronic development of these categories in the past, let alone the future. The synchronic grammaticalization of the present perfect in Dutch and English is summarized in *Table 4.2*.

Table 4.2. Synchronic grammaticalization of the present perfect in Dutch and English.

PRESENT PERFECT (E1 < E2,R,S)	PERFECTIVE PAST (E<S)
English	
Dutch	

Table 4.2 shows that the Dutch present perfect covers part of the semantic domain of PERFECTIVE PAST, whereas the English present perfect does not even cover the entire semantic domain of PRESENT PERFECT. In the following sections, I will try to make clear exactly which parts of these semantic domains are covered by the English and the Dutch present perfect and, more interestingly (from the perspective of semantic incompatibility, see 1.4.1), exactly which parts are *not* covered by them. I will start out by discussing the semantic domain of PRESENT PERFECT (4.3) and then turn to PERFECTIVE PAST (4.4).

4.3. PRESENT PERFECT

4.3.1. The resultative reading

4.3.1.1. The resultative analysis of the present perfect. In the previous section, I showed that in diachronic studies of the present perfect, this category is assumed to be derived from a resultative construction, presenting the result of a past event rather than the past event itself. From a synchronic point of view, it was observed in section 4.2.1 that when the English present perfect is used to present a telic situation, it asserts that the result state of that situation is still holding at the moment of utterance; this explains why it is difficult to interpret (3)a, repeated here as (14).

(14) ? He has left, but he has come back later.

For Dutch sentences such as (15) (=(7)), it can equally be observed that on either reading of the sentence (see (8)a and (8)b), we can understand the book as having a binding at the moment of utterance; on the PERFECT reading exemplified in (8)b, the past activity of binding the book is more prominent, but, in the absence of information to the contrary, we may conclude from it that the book is a bound book at S. (The latter interpretation is, however, not necessary for Dutch (15); see 4.3.1.3.)

(15) Ik heb het boek gebonden.
I have the book bound
'I have bound the book.'/'I have a bound copy of the book.'

On the basis of such observations it has been argued that, in fact, *all* instances of the present perfect in English and in Dutch refer to the result state of a past situation (see for Dutch Boogaart 1994; for English Moens 1987, Löbner 1988, and Parsons 1994). If this were true, then the semantics of the present perfect in Dutch and in English could be characterized as in (16) (= (10)).[5]

[5] From here onwards, I use the term *resultative* to indicate one of the possible readings of the present perfect. This reading is different from the resultative origin of the perfect discussed in section 4.2.2 and referred to in the grammaticalization chain in (5). Examples of resultatives in the latter sense are Dutch (8)a and, for instance, English *he is gone* (resultative), as opposed to *he has gone* (perfect) and *he has his hands tied behind his back* (resultative), as opposed to *he has tied his hands behind his back* (perfect).

(16) E < $Result_E$,R,S

There has recently been a related discussion in the literature on Dutch about the question whether, for examples such as (11) given in the previous section, the notion of result state can, synchronically speaking, be considered part of the *meaning* of the past participle (Janssen 1986; Van der Wal 1986; Cornelis 1997; De Haan 1997); the issue is obviously equally relevant for the semantics of the perfect construction, in either Dutch or English, as a whole. For the purpose of the present discussion, the issue can be rephrased as follows: is the representation for resultative, given in (16), sufficient to capture the semantics of the present-day present perfect in Dutch and in English? I will argue that it is not. I will start out by discussing the obvious problem constituted for the resultative analysis by atelic predicates, and then turn to telic predicates. My claim is that the resultative construal in (16) is compatible with the semantics of the present perfect in both Dutch and English, but does not constitute its meaning.

4.3.1.2. Atelics

I. Dutch

Given examples such as (17) (= (11)b), it will be clear that the only way to maintain that all perfects refer to the result state of a past situation is to accept a very abstract notion of what counts as the result state of a situation.

(17) Hij is ziek geweest, is leraar geweest, etc.
He is sick been, is teacher been
'He has been sick, has been a teacher, etc.'

In actual fact, the resultative analysis of all instances of the present perfect boils down to saying that every event has as its result state the fact that the event happened. The difference between telics, as in (14) and (15), and atelics, as in (17), can then be treated as a difference in emphasis on either the result state or, in the absence thereof, on the preceding action itself, depending on the semantics of the main verb (Van der Wal 1986: 71-72; Cornelis 1997: 60). Generalizing the concept of result state in this way, is, of course, in line with many semantic developments that take place in processes of grammaticalization (cf. previous section), most notably *semantic bleaching* in the sense of Sweetser (1989). Still, regarding the concept of result state as an inherent property of the participle and,

therefore, of the perfect construction faces serious problems, and not just for [- telic] predicates.

As an illustration of the problem for atelics, let me briefly return to an issue discussed in Chapter 3 with respect to examples such as the following.

(18) I only corrected the paper last night. First I had to finish the grant proposal. *Then I was ill*. Then we had the project review which took three days and more than a week of preparation.

In section 3.4.2 (see esp. fn.23), I argued against the view, put forth by Kamp & Reyle (1993: 509), that the italicized clause in (18) presents some sort of an event. Although the situation may be interpreted as one in a sequence of situations, which is typical of events rather than states, it nevertheless lacks the defining property of [+ telic] clauses. Specifically, the clause does not describe a transition between two different states. Instead, the temporal interpretation of the state in (18) can be represented as in (19).

(19) not be ill |//////be ill//////| not be ill

Crucially, the state preceding the situation of being ill and the one following it are qualitatively the same, they consist of not being ill. Now, the illness may have changed my outlook on life (or even my appearance) but this is not part of the concept associated with atelic situations such as in (18). Such situations may be *bounded* by contextual information, but it does not make them *telic*; there is a difference between bounded states (or, more generally, bounded imperfectives), on the one hand, and events (or rather perfectives), on the other. (See section 3.4.2.1, cf. Declerck 1991 and Depraetere 1996 for the distinction between telicity and boundedness).

Presenting atelic situations by means of a perfect construction, as in (17), has a "bounding" effect similar to that witnessed in (18): the Dutch present perfect in (17) presents an atelic situation as "bounded to the right".[6] In addition, it presents a state holding at the time denoted by the finite form. This state, however, like the state following the situation of being ill in (18), cannot be identified with the state resulting from a [+ telic] event. Indeed, I introduced the concept of result state, in section 3.2.2.1, to distinguish between [+ telic] and [- telic] event-

[6] These sentences are not incompatible with a reading in which the atelic situation is *still* holding at the moment of utterance (e.g. *Ik heb nu tien jaar in Amsterdam gewoond* "I have lived in Amsterdam for ten years now"). In such cases, the left bound of the situation seems to be constituted by the moment of utterance. Cf. the discussion of the continuative perfect in 4.3.2.

conceptualizations and it therefore does not make sense to accept at this point that atelic situations may have a result state associated with them after all.

II. English

For English, the main evidence against the claim that the English perfect *is* a resultative is likewise constituted by perfects of atelic predicates, as in (20).

(20) a. John has worked in the garden.
b. John has been working in the garden.

As discussed above, in the case of [- telic] predicates such as /work in the garden/ the state holding at the present moment as presented by the present perfect cannot be the result state of a past situation because the concept of an atelic situation simply does not include reference to such a result state. In such cases, two possibilities present themselves.

A. The past situation is understood to be no longer holding at the moment of utterance (bounded to the right).

For Dutch (17), this is the most readily available interpretation. Interestingly, intuitions among native speakers about the availability of the right-bounded reading for English (20)a differ. Moens & Steedman (1988: 24) claim that *Has John worked in the garden?* is not an acceptable sentence in English. (And, therefore, they do not have a problem with maintaining the notion of result state as part of the meaning of the perfect.) Others readily accept (20)a as, for instance, an explanation of why John is covered with mud, or is too tired to go out, at the moment of utterance. The latter additional element of the interpretation of (20)a shows that the English present perfect does refer to the state holding at the present moment, but this state is not necessarily the result state of a [+ telic] event, as would be required in the case of a resultative. For those who have a problem with (20)a, it can be noted that the argument applies just as well to the right-bounded reading of (20)b (and this sentence is accepted by all native speakers).

B. The past situation itself may be understood as still holding at the moment of utterance.

The second possibility is exemplified by the so-called continuative reading of the English present perfect (*John has been working in the garden for hours now*). On this reading, the state holding at the present moment is the same as the one

holding in the past and, in any case, it is not presented as the result state of a past situation (cf. 4.3.2).[7]

Thus, I feel safe in concluding that the interpretation of atelic predicates, as in (20)a and (20)b, and, therefore, the *meaning* of the English present perfect, just like that of the Dutch present perfect, cannot be represented by means of the resultative construal in (16).

4.3.1.3. Telics

I. Dutch

The problem with maintaining the notion of resultativity as part of the meaning of the perfect is, however, not restricted to atelics, at least in Dutch. The Dutch present perfect can be used in sequences of the sort exemplified in (21) (cf. English (3)a).

(21)	John	is	weggegaan	en	daarna	weer	teruggekomen.
	John	is	left	and	afterwards	again	come-back
	'John left and came back later.'						

The sequence in (21) presents two [+ telic] events by means of a present perfect. The concept associated with the first event, leaving, can be regarded as a transititon between "John be here" and "John not be here". On the resultative reading of the first clause, the claim is that the result state of leaving is holding at the moment of utterance. Thus, John is not around. However, this claim is incompatible with the information presented in the second clause, which informs us about John's return (resulting in "John be here"). And yet, (21) is a possible sequence in Dutch. This does not necessarily show that the concept of result state is not part of the interpretation of the past participle presenting a telic event ("John is not here" was true at *some* time in the past), but it does show that the concept of the result state of a telic situation *still holding at the present moment* is not systematically part of the interpretation of the Dutch present perfect, even when it presents a telic situation.

The latter, resultative interpretation is surely compatible with the semantics of the Dutch present perfect. In the presence of adverbials focusing on the result

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[7] In order to maintain "reference to a result state" as the meaning of the perfect, Moens (1987) simply assumes that the continuative perfect asserts that the result state of some atelic situation is holding at the present moment, but, as argued above, I regard this as stretching the notion of result state too far (see Ogihara 1992 and Sandström 1993 for similar criticism).

state of a past situation, it may be the only possible reading, see (22)a (Janssen 1989).

(22) a. John is al lang en breed vertrokken.
John is already long and wide left
'John has been gone for ages.'
b. ? ... en daarna weer teruggekomen.
and therafter again returned
'...and then returned again.'

The phrase *al lang en breed* (lit. 'long and wide') in (22)a modifies the result state of leaving, not the event of leaving itself. Given such a resultative reading, the Dutch present perfect is incompatible with a continuation, as exemplified in (22)b, in which the result state is cancelled again. This illustrates that the only possible reading of the English present perfect presenting a telic event equals *one of the possible* interpretations of the Dutch present perfect, namely the one that is exemplified by (22)a. The other possible reading of the Dutch present perfect can be illustrated by (23)a, where the adverbial modifies the event of leaving (not the result state of having left).

(23) a. John is gisterenochtend om 10 uur vertrokken.
John is yesterday morning at 10 hour left
'John left yesterday morning at 10 o'clock.'
b. * John has left at 10 o'clock yesterday morning.

This reading is incompatible with the English present perfect, as is shown in (23)b (see section 4.3.3).

II. English

The fact that the literal English translation of (21), in (24), does not constitute a coherent sequence suggests that the resultative in (16) suffices as a semantic characterization of the English present perfect, at least when it presents a telic situation.

(24) ? John has left and then has come back later.

At various places in the literature, possible counterexamples to this generalization have been provided, but I do not think that any of them is convincing. Thus, Sørensen (1964) provides a couple of English examples of exactly the type

illustrated in (24), such as *I have bought a new car but resold it immediately*, and uses these to refute the claim that the English present perfect presents a result state holding at the present moment. This parallels my argument for the Dutch present perfect given above and it suggests that, in this respect, there is no difference between Dutch (21) and English (24). However, Sørensen's English examples are considered to be ungrammatical by most native speakers; they have been labeled "deviant" by Fenn (1987: 107).

Bybee, Perkins & Pagliuca (1994: 63) make the same point as Sørensen did. They claim that only resultatives signal the persistence of a result state at S; the English perfect, according to them, is not a resultative and, therefore, does not claim the result state to be holding at the present moment. I agree with the claim that the English perfect is not a resultative, but Bybee et al. extend their claim to include telic predicates. To substantiate the latter claim, they give the examples given in (25), which, at least superficially, resemble Dutch (21).

(25) a. He has gone and come back already.
b. The door has opened and closed several times.

However, I consider these clauses to present the complex events "go and come back" and "open and close (several times)", respectively. (Sørensen's example could possibly be analysed in a similar way.) Clearly, the result states of these events *do* hold at S.[8] Thus, I do not regard these examples (or Sørensen's examples) as counterevidence to the claim that, at least in the case of a telic predicate, the English present perfect, unlike the Dutch one, claims that the result state of the event is still holding at the present moment. A final example is Declerck's (1991: 343) *She has already told me his name but I have forgotten it*. I do not accept this as a counterexample either because, unlike Declerck, I do not consider "I know his name" to be an accurate description of the result state of telling.[9]

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[8] A similar analysis is possible for the so-called experiential use of the present perfect, as in *Have you ever been in Moscow?* or *I have visited twenty countries*. Thus, one can be in the result state of being in Moscow or visiting twenty countries without actually being in Moscow (let alone in twenty countries) at the moment of utterance. On such readings, "certain qualities or knowledge are attributable to the agent due to past experiences" (Bybee et al. 1994: 62).

[9] See Korrel (1991, esp. Chapter 4) for an enlightening discussion of this property of the perfect in English in comparison with Dutch. Korrel offers many examples to illustrate her claim that in English the present perfect can only be used if the state referred to is *the immediate outcome of* (*is directly and totally conditioned by*) the main verb event. Korrel explains the difference between the Dutch and the English perfect as following from a different conceptualization of the present moment in Dutch and English. It is as yet unclear to me if such an explanation is compatible with my own analysis in terms of synchronic grammaticalization.

To summarize my findings thus far, the semantic representation for the resultative perfect, as repeated in (26)a below, is insufficient to account for all uses of both the Dutch and the English present perfect; it can, therefore, not be taken to represent the meaning of the present perfect in either Dutch or English, which should be independent of the lexical content of the participle.

(26) a. E < $Result_E$,R,S (resultative)
b. E2 < E1,R,S (perfect)

Rather, a more abstract characterization is needed, specifically to include the perfect of atelic predicates in Dutch and English, and some telics in Dutch (see (21)). This results in the representation for PRESENT PERFECT first given in (2)a and repeated as (26)b. The resultative reading represented in (26)a is compatible with the semantics of the PRESENT PERFECT in (26)b; $Result_E$ is one possible interpretation of *E1* in (26)b, but not the only possible one.

Whereas the more abstract characterization in (26)b is needed to account for both the English and the Dutch present perfect, the preceding discussion also showed a number of systematic differences between the interpretation of the English perfect and that of the Dutch one. These have been summarized in (27).

(27)	*Aktionsart main verb*	*Situation at S*	*Present Perfect* English	Dutch
1.	[+ telic]	RESULT STATE still holding	yes	yes
2.	[+ telic]	RESULT STATE no longer holding	no	yes
3.	[- telic]	situation still holding	yes	no
4.	[- telic]	situation no longer holding	yes	yes

All four semantic construals presented in (27) are compatible with the general meaning proposed for the English and the Dutch perfect in (26)b, and yet Dutch and English cannot always use the present perfect to express these readings. The analysis so far therefore presents a clear example of the difficulties that arise when the principle of semantic compatibility (1.4.1) is applied in contrastive

research; the high level of abstraction needed to account for all occurrences tends to obscure language-specific constraints on the use of a formal category (cf., with special reference to tense and aspect, Kinberg 1991 and Bybee, Perkins & Pagliuca 1994: 44).

Language-specific variation within the domain of PRESENT PERFECT can be related to the different degree of grammaticalization of this category. For the constraint discussed in this section, this seems rather straightforward. The constraint consists in the fact that in order for use of the present perfect in English to be felicitous with a telic predicate, the result state of the event should still be in effect at the moment of utterance. This constraint on the use of the English present perfect is not imposed by the semantics of PRESENT PERFECT as given in (26)b. A [+ telic] event that happened in the past may be relevant in many ways for the situation holding at the moment of utterance even if its result state, in a strict sense of the word, no longer holds. This is the main reason for the fact that the English present perfect is represented in *Table 4.2* as not covering the entire semantic domain of the PERFECT. Obviously, the requirement that the result state should be valid at S *is* part of the concept associated with resultatives (as in (26)a). If we think of the semantic domains of RESULTATIVE and PERFECT as constituting a continuum, and diachronic studies suggest that this is a sensible way to think of them (see 4.1.2), then this finding clearly shows that the English present perfect is (still) closer to a resultative than its Dutch counterpart.

In the following sections, I will show to what extent the other two differences in use between the Dutch and the English present perfect can likewise be ascribed to the different degree to which these categories are grammaticalized, as was represented in *Table 4.2*. The first one concerns the use of the English present perfect to express continuative meaning (4.3.2); relating the continuative use of the perfect to the grammaticalization chain will turn out to be somewhat problematic. The second difference to be discussed, which is more clearly related to the difference in grammaticalization, concerns the incompatibility of the English present perfect with temporal adverbials referring to a definite moment in the past (4.3.3).

4.3.2. The continuative reading

In the preceding section, I argued that the semantics of the English present perfect should be represented as in (28)b rather than as in resultative (28)a.

(28) a. $E < Result_E,R,S$ (resultative)
b. $E1 < E2,R,S$ (perfect)

This was motivated primarily by the fact that the perfect can be used to present situations that do not have a result state attached to them at all. In English, such perfects allow for so-called continuative readings: the situation started in the past and is still holding at the present moment. An example is given in (29).

(29) John has hated his teacher ever since he started school.

Dutch typically uses a present tense, as in (30)a, rather than a perfect in this type of sentence; as (30)b shows, that option is not available in English.

(30) a. John haat zijn leraar al vanaf het moment dat
John hates his teacher already since the moment that
hij naar school gaat.
he to school goes
'John has hated his teacher ever since he started school.'

b. * John hates his teacher ever since he started school.

As the characterization in (28)b is supposed to constitute the semantics of the present perfect, the continuative reading of (29) should of course be compatible with it. An obvious way of relating this reading to the semantics of the present perfect is to say that one possible interpretation of E2 in (28)b is that it equals E1, as represented in (31); the situation holding at the present moment is the same one as the one holding in the past.

(31) E1 < E1,R,S (continuative)

The question now is in what way the continuative reading of the perfect is semantically related to the resultative reading of the perfect represented in (28)a. If the two are closely related, then this might enable us to relate the difference between the Dutch and the English present perfect in the domain of continuative meaning to the different degree of grammaticalization represented in *Table 4.2*. I will first show that the continuative reading indeed shares some important characteristics with the resultative origin of the perfect construction. After that, however, I will argue that it is nonetheless difficult to analyse the difference exemplified by (29) and (30) as a difference in grammaticalization of the perfect.

Both on the continuative reading, represented in (31), and on the resultative reading, represented in (28)a, the present perfect arguably refers twice to the same situation. This is of course most clear for the continuative perfect; on this reading, E2 in (28)b is taken to be identical to E1 (see (31)). In the case of the resultative perfect, E1 and E2 refer to different *parts* of the same situation, namely the

situation itself (E1) and its result state (E2). Thus, we might postulate that the present perfect in English semantically expresses the construal in (31), leaving it to Aktionsart to determine which part of E1 - either E1 itself or its result state - is presented as (still) holding at S.

The continuative reading, furthermore, shares an important feature with the possessive/resultative origin of the perfect construction, discussed in section 4.2.2, namely the fact that the time of the finite form and the participle are simultaneous. Such an analogy between the resultative and the continuative reading is proposed by Brugger (1998), who argues that both readings can be accounted for without reference to a past relation as in both readings "the viewpoint of the participle and the Speech Time are co-temporal".[10]

In fact, analogous to the way in which (32) (= (6)b) could be paraphrased as "he has a fence in a state of paintedness" (E,R,S), the continuative reading of (29) might be paraphrased as "he has his teacher in a state of hatedness".

(32) I [$_{VP}$ [$_{V}$ have [[$_{NP}$ a fence] [$_{A}$ painted]]]

Such an analysis, in any case, supports the more general claim that the English present perfect is a present tense: simultaneity of E and S constitutes at least part of the interpretation of (29); John still hates his teacher at the moment of utterance. (Recall that the grammaticalization chain attested for perfects can be regarded as a development from a present tense to a past tense; see section 4.2.2.) However, a unified analysis of resultatives and continuatives is not without problems; I will mention three of them.

First, the English present perfect, in addition to resultative and continuative readings, also allows for a right bounded reading of atelic predicates, i.e. a reading in which the situation is assumed to have ended somewhere before S and the state holding at S cannot be identified with any part of the past situation. More importantly, the latter interpretation seems more easily available for English sentences such as (33)a, just like for Dutch (33)b.

(33) a. John has hated his teacher.
b. John heeft zijn leraar gehaat.
John has his teacher hated.
'John has hated his teacher.'

[10] In support of this analysis, Brugger points to their common behaviour with respect to sequence of tenses: neither a resultative nor a continuative in the matrix licenses a simultaneity reading of an embedded past tense (see Chapter 2) and in this sense they behave just like the present tense.

Explicit indicators (such as *for years now*, or *ever since he started school* in (29)), or other contextual or situational indications that one is talking about a past-to-present interval (Mittwoch 1988), are needed to override, as it were, the available right-bounded reading.[11] This observation would be hard to explain if the continuative reading were closer to the prototypical perfect reading of resultativity than the right-bounded reading is.

Second, diachronically, the continuative perfect is a rather late development (Carey 1994: 100) (according to Van der Wurff 1993: 297 one can find present tense forms in continuative contexts in English up to 1900). There are no data supporting the hypothesis that the English perfect developed continuative uses before it developed right bounded uses. Nor is there any support for the claim that Dutch (33)b *ever* had the continuative reading before it developed the right-bounded reading. In fact, Carey (1994: 100) hypothesizes that "up-to-the-present situations completely devoid of any notion of result will be the last contexts infiltrated by the perfect".

Finally, if the resultative and the continuative are really, semantically speaking, one and the same thing, as, for instance, Brugger (1998) argues, then this in fact makes it all the more puzzling that Dutch and other languages that can use the perfect in a resultative sense do not typically use the perfect, but rather the present tense, in continuative contexts (cf. Sandström 1993: 124 for similar criticism of Moens 1987).

At this point, the conclusion is inescapable that, whether we look at it from a diachronic or a synchronic perspective, the continuative reading of the present perfect is not necessarily closer to a resultative than the right-bounded reading of the perfect is. It seems, therefore, that the difference between English and Dutch when it comes to expressing continuousness cannot be ascribed to a difference in grammaticalization in any straightforward way.

If we look at it from the viewpoint of semantic compatibility this conclusion should not be too surprising. As discussed above, the continuative reading is clearly compatible with the semantics of PRESENT PERFECT as given in (28)b. In fact, given our characterization of this category, the present perfect seems like an ideal means to make a claim about the past and the present at the same time. (In Dahl's 1985 questionnaire, covering 65 languages, 10 languages obligatorily use the perfect in a continuative context.) It should be noted, in this respect, that the Dutch present perfect does not exclude the possibility that an atelic situation is still holding at the moment of utterance; see, for instance, (34).

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[11] In addition, many native speakers feel the need for a perfect progressive in continuative contexts (*I have been living in Amsterdam for ten years now*), which likewise suggests that extra means have to be employed to keep the right bound of the situation "out of sight".

(34) a. Ik heb nu tien jaar in Amsterdam gewoond.
I have now ten year in Amsterdam lived
'I have lived in Amsterdam for ten years now.'
b. I have lived (been living) in Amsterdam for ten years now.

In any case, Dutch (34)a, like English (34)b, can be used in a situation in which the speaker is still living in Amsterdam at the moment of utterance.[12]

What is puzzling is not that English uses a present perfect to express continuative meaning, but rather that it cannot use the present tense to do so; Dutch (35)a is fine, whereas English (35)b is ungrammatical.[13]

(35) a. Ik woon nu tien jaar in Amsterdam.
I live now ten year in Amsterdam
'I have lived in Amsterdam for ten years now.'
b. * I live in Amsterdam for ten years now.

Thus, the question to be answered is really why the English present tense is incompatible with continuative readings. I will remain agnostic here on the issue of what causes the difference illustrated in (35); my analysis of the aspectual interpretation of the simple tense in English (Chapter 6) does not automatically provide us with an answer to this question. It may have to do with a semantic difference between the Dutch and the English present tense (Kamp 1991), or with a difference in the way English and Dutch conceptualize the present moment (Korrel 1991). And we might even have to conclude, like Kirsner (1977) did, that the choice between perfect and present in continuative contexts simply is "the result of a conventionalized reduction of equally suitable alternatives" (1977: 40). Using my own terminology this can be rephrased as follows: use of the present perfect to express continuative meaning in English has grammaticalized to the extent that it has become obligatory, thus leaving only non-continuative meaning

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[12] With some adverbs, in particular *altijd* ('always') and *nooit* ('never'), the present perfect is obligatory to express the continuative reading in Dutch as well, cf. *Ik heb altijd in Amsterdam gewoond* ('I have always lived in Amsterdam') and ?*Ik woon altijd in Amsterdam* ('I always live in Amsterdam') (Geerts et al. 1984: 459).

[13] The semantic difference between Dutch (35)a and (34)a is very hard to make precise. They seem to represent two different ways in which a continuative situation may be conceptualized, i.e. either as a situation that is holding now (35a), or as a situation that is bounded to the right by the moment of utterance (34a).

to be covered by the zero-form (cf. especially 6.3.1. on grammaticalization of zero (Bybee 1994)).

4.3.3. Compatibility with adverbials

Probably the best known difference between the English and the Dutch perfect is the fact that the English present perfect is incompatible with temporal adverbials locating the main verb event at a definite point or period in the past, whereas the Dutch perfect is not. The difference is illustrated in (36).

(36) a. Ik heb gisteren je brief gelezen.
I have yesterday your letter read
'I read your letter yesterday.'
b. ? I have read your letter yesterday.

Language-specific constraints on temporal modification allowed by the perfect can be taken as indicative of the extent to which the perfect has grammaticalized. If we assume that the category of PERFECT presents two situations, namely a state holding in the present and a situation in the past, as repeated in (37), then this does not as such impose any restrictions on temporal modification.[14]

(37) E1 < E2,R,S (perfect)

And yet, English (36)b does not constitute an ordinary English sentence. It will be clear that the resultative origin of the perfect construction does share the restriction exemplified by (36)b: the resultative presents only one situation, namely a state holding at the present moment, and only this situation is therefore available for temporal modification. In fact, when listing differences between resultative and perfect, Nedjalkov & Jaxontov (1988: 16) note that "in many languages [...] the perfect form can take an adverbial of time indicating the moment at which the action took place [...]. With the resultative, such an adverbial can only indicate a moment at which the state is in existence". At the same time, they note that, in this respect, the English perfect constitutes an

[14] Unless, of course, one assumes that temporal adverbials can only locate a point of reference in time: the present perfect has a point of reference in the present, not in the past. In fact, Reichenbach (1947) introduced the very notion of reference point to account for this difference between simple past and present perfect in English. In my analysis, there is no one-to-one relationship between temporal adverbials and reference points: R may be specificied by a temporal adverbial but it not necessarily is, and adverbials may locate R in time but I have no reason to assume that they might not locate E's in time.

exception. I believe this exceptional status of the English present perfect gets a straightforward explanation if we assume that the English perfect is, in this respect, more of a resultative than a perfect: the constraint exemplified in (36)b is not imposed by the perfect concept but by the resultative concept.

The incompatibility of the English present perfect with temporal adverbials referring to a definite past time thus constitutes a further important motivation for not having the English present perfect in *Table 4.2* cover the entire semantic domain of PRESENT PERFECT. Just like the discussion of the resultative reading in 4.3.1, it illustrates that the English present perfect occupies a place on the RESULTATIVE-PERFECT continuum that is closer to a resultative than the Dutch present perfect does. So far, we have not discovered constraints on the use of the Dutch present perfect within the semantic domain of PRESENT PERFECT and, therefore, it was represented in *Table 4.2* as covering the entire PERFECT domain. In somewhat more detail, the findings of this section can be summarized as in *Table 4.3*.

Table 4.3. The expression of PRESENT PERFECT by means of a present perfect in Dutch and in English.

PRESENT PERFECT (E1 < E2,R,S)			
[+ telic]; result holding at S	[- telic]; continuative/ right bounded	[+ telic]; result not holding at S	definite past adverbial
English			
Dutch			

In the following section, I will address the question to what extent the range of the Dutch present perfect extends beyond the PERFECT domain into the semantic domain of PERFECTIVE PAST.

4.4. PERFECTIVE PAST

4.4.1. The Dutch present perfect is not a general past tense

In section 4.2.1, I showed that many grammaticalization studies assume the semantics of the present perfect to follow the path of development repeated in (38).

(38) RESULTATIVE < PERFECT < PERFECTIVE < PAST

Thus, the present perfect starts out as a present tense, expressing a state holding at the point of speech, and develops into a past tense, expressing a situation that precedes the point of speech. The end point of the grammaticalization chain in (38) is constituted by the category PAST, thus covering both PERFECTIVE PAST and IMPERFECTIVE PAST. It can easily be shown that the Dutch present perfect is not a general past tense in the latter sense.

McCoard (1978: 156) claims that "In spoken Dutch, the only past tense normally used is the perfect [...], so there really is no regular opposition with the preterit, and no good reason to talk about the mental processes of speakers 'choosing' the perfect". This boils down to saying that, at least in "spoken Dutch", the present perfect has grammaticalized beyond the PERFECT and PERFECTIVE stage into denoting simply PAST time. If this view were correct, the Dutch present perfect would have reached the final step in the chain given in (38). However, Dutch, whether spoken or not, cannot use a present perfect to express *IM*PERFECTIVE PAST. This is shown in (39) and (40).

(39) a. Jan zei dat hij dat boek gelezen heeft.
Jan said that he that book read has
'Jan said that he read/has read that book.'

b. Jan zei dat hij dat boek las.
Jan said that he that book read
'Jan said that he read/was reading that book.'

(40) a. Toen Jan binnenkwam, heeft Marie een brief geschreven.
when Jan entered, has Marie a letter written
'When Jan entered, Marie wrote a letter.'

b. Toen Jan binnenkwam, schreef Marie een brief.
When Jan entered wrote Marie a letter
'When Jan entered, Mary wrote/was writing a letter.'

The a-sentences of (39) and (40) do not allow for an inclusion reading: (39)a cannot be used in a situation in which Jan informs us about his reading while reading, and (40)a cannot be used to present a situation in which Jan's entrance interrupts Marie's writing a letter. Thus, the Dutch present perfect cannot present a situation from the past as holding at a contextually provided moment in time, as

an IMPERFECTIVE PAST does, and, therefore, it cannot be treated as a general past tense.[15]

In accordance with the claim that the German present perfect has grammaticalized further than its Dutch counterpart, the German sentence in (41) does allow for an inclusion reading; note also the progressive in the English translation (De Vuyst 1983; Ten Cate 1989).

(41)	Sie	hat	gearbeitet	als	ich	anrief. (De Vuyst 1983: 131)
	she	has	worked	when	I	called
	'She was working when I called.'					

Even though the French *passé composé* has also grammaticalized further than the Dutch perfect, similar examples cannot be found for French. This is understandable as in French the passé composé may have replaced, in spoken discourse, the (perfective past) *passé simple*, but the domain of IMPERFECTIVE PAST is still covered by the *imparfait*. This difference between German and French is in accordance with Bybee et al.'s hypothesis that "the existence of a past imperfective determines whether a generalizing anterior [i.e. my PERFECT; RB] will become perfective or simple past" (1994: 85). Thus, Bybee et al. claim that the present perfect will not grammaticalize beyond the PERFECTIVE stage if there already is a separate form to express IMPERFECTIVE PAST.

The situation in Dutch arguably exemplifies yet another possible development. As was illustrated in (39) and (40) above, the Dutch present perfect does not allow for imperfective past readings. This, however, cannot be attributed to the fact that there already is an alternative form available that unambiguously expresses imperfective past. The Dutch unmarked past was never exclusively an imperfective and, in fact, it seems to have functioned as an aoristic (perfective) past in earlier stages of the language (see, for instance, Janssen 1991b on its use in the Middle Dutch *Ferguut*). Therefore, the fact that the unmarked past, at least in non-narrative discourse (see 4.4.3), often gets an imperfective interpretation in Dutch may be a consequence of the fact that the Dutch present perfect now covers the domain of perfective past in this discourse mode. Thus, the unmarked past is interpreted as an imperfective past possibly *as a consequence of* the grammaticalization of the perfect, rather than the other way around as the quote from Bybee et al. suggests. (See Chapter 6 on this process of grammaticalization of zero.)

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[15] In addition, as I will argue in the following section, the Dutch present perfect is not normally used in narrative discourse, which arguably includes most *when*-clauses (see 4.4.2.2), and narrative discourse is not necessarily *written* discourse, as McCoard seems to suggest.

The discussion, in any case, shows that, when studying the development from the present perfect into a past tense, it is important to distinguish between PERFECTIVE PAST and IMPERFECTIVE PAST uses. Doing so provides more insight into the different degree of grammaticalization of, for instance, the English, Dutch, French, and German perfects, which can, hypothetically, be represented as in *Table 4.4* below. The table visualizes, among other things, Vet's (1982: 34) claim that the Dutch present perfect constitutes the missing link between the English present perfect and the French one.[16]

Table 4.4. Synchronic grammaticalization of the present perfect in English, Dutch, French, and German.

PERFECT	PAST	
	PERFECTIVE	IMPERFECTIVE
English		
Dutch		
French		
German		

Given that the Dutch present perfect does not allow for IMPERFECTIVE PAST readings, it very clearly is not a general past tense. However, this still leaves open the possibility that the Dutch present perfect is a PERFECTIVE PAST. In the following section, I will show that the Dutch present perfect cannot be said to express PERFECTIVE PAST *per se* (4.4.2). However, it does function as a PERFECTIVE PAST in non-narrative discourse (4.4.3).

4.4.2. The Dutch present perfect is not a perfective past

4.4.2.1. Narrative. In section 4.3.1, the following difference in use between the Dutch and the English present perfect was noted. The English present perfect requires the result state of a telic situation to still be holding at the moment of

[16] Vogel (1997: 143) provides a similar chart for the perfect in Standard Italian and Northern Italian. The present perfect in the languages represented in *Table 4.4* may likewise show a different degree of grammaticalization depending on which variety is considered. Such differences have in any case be documented for Northern and Southern German, and for British and American English.

utterance; the Dutch present perfect is compatible with a reading in which that result state no longer holds, cf. (42)a and (42)b.

(42) a. ? He has left and he has come back later.

b.	Hij	is	weggegaan	en	later	weer	teruggekomen.
	he	is	left	and	later	again	returned

'He left and came back later.'

In *Table 4.3*, I represented this reading of the Dutch present perfect as constituting part of the semantic domain of PRESENT PERFECT, as given in (43)a.

(43) a. E1 < E2,R,S (present perfect)
b. E < S (perfective past)

However, it could be argued that the use of the Dutch present perfect exemplified in (42)b illustrates that the Dutch present perfect has grammaticalized to the extent that it expresses PERFECTIVE PAST, as given in (43)b, rather than PRESENT PERFECT.

Indeed, as discussed in Chapter 3, the denotation of a sequence of events that happened in the past, as in (42)b, is often considered to constitute *the* discourse function of perfective verb forms. This was captured, for instance, by Hopper's notion of foregrounding. And in Chapter 3 it was argued that the DRT rules predicting sequential ordering for events in English, as in (44), happened to work, among other things, because the English simple past is PERFECTIVE in eventive clauses.

(44) He left but came back later.

Thus, if we assume that the Dutch present perfect likewise expresses PERFECTIVE PAST, then this, given pragmatic incompatibility of the situations presented (see 3.4.2.1), provides us with an explanation for the sequence reading of sentences such as (42)b. (In this particular case, this reading is obviously made explicit by means of a temporal adverbial.) De Haan (1991: 145), indeed, assumes that Comrie's (1976) characterization of the universal-semantic category PERFECTIVE, namely presenting an event as an undivided whole, is appropriate to describe the meaning of the Dutch present perfect.

So what arguments are there against the claim that the Dutch present perfect is a PERFECTIVE PAST tense? The crucial one is that we should be able to distinguish between (42)b, repeated here as (45)a, on the one hand, and (45)b, on the other.

Specifically, the forms in (45)b, and not those in (45)a, can be characterized as PERFECTIVE PAST.

(45) a. Hij is weggegaan en later weer teruggekomen.
he is left and later again returned
'He left and came back later.'

b. Hij ging weg en kwam later weer terug.
he left and came later again back
'He left and came back later.'

But what *is* the difference between (45)a and (45)b? In my view, this difference can be characterized as the difference between non-narrative and narrative discourse.

Recall that the semantics of PERFECTIVE PAST can be informally characterized as in (46) (cf. 1.3.3.2).

(46) Perfective past presents a bounded situation occurring before the point of speech.

The contrast with the semantics of PRESENT PERFECT, represented in (43)a, consists mainly in the fact that PRESENT PERFECT, *in addition to* presenting a "bounded situation occurring before the point of speech" (PERFECTIVE PAST), explictly refers to the state of the world holding at the moment of speech; in my analysis, this is captured as the fact that the point of speech functions as the point of reference for the interpretation of the (imperfective) state referred to by the finite verb form. Now, the latter property of PRESENT PERFECT, which PERFECTIVE PAST lacks, is incompatible with what is supposed to be a defining property of narrative discourse, namely the "bracketing of the speechpoint", as is described in the following quotation from Sandström (1993) (cf. sections 1.5.3.2 and 3.4.1):

> Part of what is involved in setting up a narrative timeline is to "put brackets" around the narration event itself [...]. The bracketed utterance event and associated point of evaluation is to play no role in the temporal interpretation of the sentences in the narrative discourse, which means that temporal deixis can no longer revert to this time. (1993: 131-132)

In a similar vein, I argued in section 3.4.1 that in order for a sequence of sentences to constitute a narrative, the situations presented should be linked to each other in a meaningful way, rather than each linked *independently* to the moment of utterance. Now, while Dutch (45)a in no way constitutes an incoherent

sequence, it does have a non-narrative flavour to it (Onrust, Verhagen & Doeve 1993; Daalder & Verhagen 1993; Clement 1997: 95-125 and references cited), which seems to consist precisely in the fact that the situations are both evaluated in their own right from the perspective of the present moment; in the words of Bosker (1961: 70), they "emphasize each event separately [my translation; RB]". (45)a, for instance, can easily be used when reconstructing a murder scene using all knowledge available to the speaker at the present moment. This additional aspect of the interpretaton of (45)a as compared to (45)b shows that the present tense in the Dutch present perfect construction explicitly refers to the moment of utterance - it does not allow for bracketing of S -, which suggests that it expresses the semantic notion PRESENT PERFECT rather than PERFECTIVE PAST.[17]

In *Table 4.5* below, which shows the expression of PERFECTIVE PAST by means of a present perfect in Dutch and English narrative discourse, I have nonetheless included the Dutch present perfect as covering some, albeit a rather small, part of the PERFECTIVE PAST domain.

Table 4.5. The expression of PERFECTIVE PAST by means of a present perfect in Dutch and English narrative discourse.

Aspect	PERFECTIVE PAST	
Mode	Narrative	
English		
Dutch	*Perfect*	

There are three reasons for including the present perfect in *Table 4.5*.

First, the representation in *Table 4.5* captures the fact that use of the Dutch present perfect in sequences such as (45)a does in any case not *exclude* the possibility that a series of situations from the past is understood to be coherently linked together. Rather, sequences such as these have an *additional* feature and this is exactly what is reflected by the present perfect covering only a subdomain of PERFECTIVE PAST in Dutch narrative discourse. Particularly in a contrastive study with English (see (42)a) this fact should be reflected in the description.

Second, the viewpoint of (diachronic) grammaticalization forces one to accept a certain degree of fuzziness in the description. More specifically, we should not exclude the possibility that, diachronically, the Dutch present perfect is on its way

[17] See the work of Janssen (1989, 1991, 1994) for further evidence in favour of the claim that the present tense of the Dutch present perfect has a clear semantic contribution of its own.

to becoming a PERFECTIVE PAST tense, like the French *passé composé*, and perhaps already is for some speakers, or in some dialects of Dutch. Besides, expressing *some* link with S is a rather vague notion and the link is not always felt as strongly in all cases and by all speakers.

Third, ignoring the narrative use of the present perfect creates the danger of circular reasoning: if each occurrence of the present perfect is a priori labeled non-narrative, then this makes the claim that the present perfect does not occur in narrative discourse a rather vacuous one, and, again, it does not leave room for any (diachronic, regional, or individual) variation. What will turn out to be crucial for the analysis of the unmarked past in Chapter 6 is the fact that use of the present perfect to express PERFECTIVE PAST is not *obligatory* in Dutch narrative discourse and that is the very least we can say.

4.4.2.2. *Toen*-clauses. Further evidence against treating the Dutch present perfect as a PERFECTIVE PAST tense is constituted by subordinated clauses introduced by *toen* ('when'). The Dutch present perfect does not easily occur in *toen*-clauses (Janssen 1983: 53-54; Oversteegen 1989: 143; Geerts et al. 1984: 462). According to Paardekooper (1986: 318), there is a "strong preference" for a simple past tense in the subclause of sentences such as (47)a.

(47) a. ? Toen Jan is binnengekomen heeft Marie een brief
when Jan is come-in, has Marie a letter
geschreven.
written
'When Jan entered, Marie wrote a letter.'

b. * When Jan has entered, Mary has written a letter.

The data from German and French in (48) and (49) (taken from Hewson & Bubenik 1997: 335 and Colson 1993: 133, respectively), where a present perfect form is used in clauses comparable to the Dutch *toen*-clause in (47)a, suggest that this may by related to the degree of grammaticalization of the present perfect; as was represented in *Table 4.4*, the present perfect in German and French covers the entire domain of PERFECTIVE PAST. (It is likewise in accordance with the situation depicted in *Table 4.4* that English (47)b is even worse than Dutch (47)a.)

(48) *Als ich hereingekommen bin*, war er beim Essen.
when I come-in am was he at eating
'When I came in, he was eating.'

(49) Qu'a fait Jean *lorsque son fils a refusé d'obéir*?
what has done Jean when his son has refused to obey
'What did Jean do when his son refused to obey?'

Still, the fact that the Dutch present perfect cannot be used in *toen*-clauses might seem puzzling in light of the fact that the Dutch perfect easily combines with adverbials denoting definite past time (see 4.3.3), including *toen* ('then') when used as a demonstrative adverb as in (50)a and (50)b.

(50) a. Toen is Jan binnengekomen.
then is Jan entered
'Then Jan entered.'

b. Toen Jan binnenkwam, toen heeft Marie die brief
when Jan entered then has Marie that letter
geschreven.
written
'When Jan entered, then Mary wrote that letter.'

In these sentences, *toen* ('then') can modify the (temporal position) of the event expressed by the main verb, which took place in the past. Thus, one cannot attribute the ungrammaticality of (47)a to the "deictic meaning aspect" (Oversteegen 1989: 143) of *toen*, because - leaving aside the question of how both uses of Dutch *toen* are related (see, for instance, Daalder 1988) - *toen* in (50)a and (50)b is no less deictic and, unlike in English, that does not prevent the use of the Dutch present perfect. The Dutch data show, therefore, that the use of the present perfect in *when*-clauses and its compatibility with adverbials denoting definite past time are separate phenomena, contrary to what is often assumed.[18] Consequently, if the English present perfect should ever become compatible with adverbials denoting past time this will not automatically mean that it can then be used felicitously in *when*-clauses referring to past events.

But then how can we explain the ungrammaticality of Dutch (46)a and how does it relate to the degree of grammaticalization of the present perfect (and thus to the grammaticality of German (48) and French (49))? In order to answer this question, it makes more sense to draw a parallel with (45)b, repeated here as (51)b, rather than with the sentences in (50).

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[18] In fact, Hewson & Bubenik (1997) provide the example cited here as (48) to oppose the German *and* the Dutch perfect to the English one, treating it as exactly the same phenomenon as its compatibility with adverbials denoting past time; they do not realize that the Dutch equivalent of (48) is not felicitous.

(51) a. Hij is weggegaan en later weer teruggekomen.
he is left and later again returned
'He left and came back later.'

b. Hij ging weg en kwam later weer terug.
he left and came later again back
'He left and came back later.'

More specifically, it is the present dimension of the present perfect that is incompatible with the function of *when*-clauses. As suggested for (51)a above, the present perfect isolates a situation from other situations that happened in the past and links it to the moment of speech. A situation that is presented in a *when*-clause, however, is presented *precisely because* of its (usually non-temporal) link with another event in the past, and therefore using a present perfect in a *when*-clause amounts to presenting the hearer with conflicting information. It should be noted that this property of *when*-clauses is highly similar to the property of narrative discourse discussed above. If a perfect (E < R,S) has lost its link with the present moment and has become a PERFECTIVE PAST tense (E < S), as has happened in French and German, then the function of *when* is no longer incompatible with the semantic information provided by the present perfect and (45) and (46) are, therefore, grammatical. For exactly the same reason, the German and French equivalents of (51)b may contain present perfect tense forms without losing their narrative flavour. The use of a present perfect in a *when*-clause should be treated on a par with its use in narrative discourse; both are a step further down the grammaticalization path than its modification by means of a temporal adverb denoting definite past time. In my description, this is captured by assuming that the latter cases are still part of the semantic domain of PRESENT PERFECT (see *Table 4.3*), whereas the narrative use of the present perfect (which includes its use in *when*-clauses) is part of the semantic domain of PERFECTIVE PAST.

The correctness of this analysis of the perfect in *toen*-clauses is confirmed by the interpretation of the occasional Dutch *toen*-clause that does contain a present perfect form. Janssen (1993: 776) remarks that *toen* is compatible with the present perfect "in very particular cases" and offers the dialogue given here as (52) (suggested to him by A. Sassen).

(52) A: Wanneer kan dat dan geweest zijn?
when can that then been be
'When could that have happened?'
B: Toen je geslaagd bent, weet je nog wel.
when you passed have, know you still (particle)
'When you passed, don't you remember!'

The song-lyrics given in (53), taken from a song by the Dutch rock band MAM, follow exactly the same pattern as the constructed dialogue in (52).

(53) A: Mam, weet jij nog wanneer ik voor het eerst een boterham met kaas gegeten heb?
'Mom, do you remember when I had (lit. have had) my first sandwich with cheese?'
B: Ja, toen je bij oma gelogeerd was, *toen Marietje geboren is*.
'Yes, when you were staying with grandma, when Marietje was (lit. has been) born'

In the dialogues in (52) and (53), the time in the past at which some event, E1, happened is an issue. The *toen*-clauses are used to give a rather global temporal specification of the time at which E1 happened; they do so by presenting another, basically unrelated, event, E2, the temporal location of which might be known to the hearer. In these *when*-structures, E1 and E2 are not coherently linked to one another other than in a strictly temporal way. In fact, E2 is presented precisely because the event (and its temporal location) might be known to the hearer *independently of* E1. This is quite different from what typically happens in *when*-clauses and narratives. All kinds of inferences about the non-temporal relationship between the situations - recall that temporal ordering as such is not a sufficient condition for coherence (3.4.2) - are blocked in (52) and (53) by the use of a present perfect in the *toen*-clause.

Thus, in (54)a the speaker uses the explosion at Chernobyl as a rough indication of the period during which he moved to a new place; the move as such is not presented as in any way related to (for instance, caused by) the disaster; in fact, it might have taken place before the actual explosion. In (54)b, containing a past tense in the *toen*-clause, the two situations are felt to be more closely related;

it seems to suggest that the move was caused by (and thus necessarily followed) the explosion at Chernobyl.[19]

(54) a. Ik ben verhuisd toen de kerncentrale in Tsjernobyl
I am moved when the nuclear plant in Chernobyl
is ontploft.
is exploded
'I moved (around the time) when the nuclear plant in Chernobyl exploded.'

b. Ik ben verhuisd toen de kerncentrale in Tsjernobyl
I am moved when the nuclear plant in Chernobyl
ontplofte.
exploded
'I moved when the nuclear plant in Chernobyl exploded.'

Therefore, the examples in (52)-(54) do not constitute counterevidence to, but confirm, my analysis of the Dutch present perfect as a PRESENT PERFECT rather than a PERFECTIVE PAST. However, in the final section of this chapter I will argue that as long as it is restricted to non-narrative discourse, the claim that the Dutch present perfect expresses PERFECTIVE PAST aspect is valid.

4.4.3. The Dutch present perfect as PERFECTIVE PAST in non-narrative discourse

In the preceding two subsections, we have seen two restrictions on the use of the Dutch present perfect to present a situation from the past:

I. The present perfect is incompatible with imperfective past readings (4.4.1).
II. The present perfect is incompatible with bracketing of the speech point (4.4.2).

However, if a past situation is viewed as bounded (and thus not imperfective), and the point of speech is not bracketed, then the Dutch present perfect can be used to present such a past situation. Regarding a situation as PERFECTIVE and PAST is not a sufficient condition for the use of the present perfect because, in addition, the present perfect explicitly expresses a link with the moment of utterance, independently of other situations from the past. Thus, whereas the present tense of

[19] The latter reading is more prominent if the *toen*-clause is preposed, presumably because an iconic ordering is preferred for causally connected (and therefore sequential) situations constituting a narrative chain of events (cf. 3.4.4).

the finite verb form in the Dutch perfect still has a semantic contribution of its own, the present dimension of the form seems to merely consist in the fact that a non-narrative context is required for its use.

In section 3.4.1.2, I argued that the general effect of using PAST PERFECTIVE in non-narrative discourse can be characterized as focusing on the right bound (end point) of past situations. Non-narrative discourse views situations from the perspective of the here-and-now of the speaker and as such has the right bound of past situations in view. As right-boundedness implies, of course, left-boundedness, this results in a completed whole reading for perfective past in non-narrative discourse. Thus, De Haan's (1991) claim that Comrie's (1976) notion of PERFECTIVE aspect may be used to characterize the semantics of the Dutch present perfect is valid as long as it is restricted to non-narrative discourse. (It should still be noted, however, that the completed whole definition of perfective aspect seems more appropriate for telic predicates than for atelic ones.) In fact, using a present perfect to express PERFECTIVE PAST seems to be the only option in Dutch non-narrative discourse, leaving the domain of IMPERFECTIVE PAST in non-narrative discourse, and the domain of both PERFECTIVE and IMPERFECTIVE PAST in narrative discourse to the unmarked past (see Chapter 6). This has been represented in *Table 4.6*.

Table 4.6. The expression of PERFECTIVE PAST by means of a present perfect in Dutch and English non-narrative discourse.

Aspect	PERFECTIVE PAST
Mode	Non-narrative
English	
Dutch	*Perfect*

4.5. Conclusion: PERFECTIVE aspect and the present perfect

The relevance of the present perfect for a discussion of aspect in English and Dutch consists mainly in the fact that the Dutch present perfect covers the domain of PERFECTIVE aspect in non-narrative discourse. Thus, the relevant findings of this chapter can be represented as in *Table 4.1*, repeated below.

Table 4.1. The expression of PERFECTIVE PAST in Dutch and English.

Aspect	PERFECTIVE PAST	
Mode	Non-narrative	Narrative
English	*Simple Past*	
Dutch	*Present Perfect*	*Simple Past*

This conclusion will turn out to be crucial to solving some of the puzzles concerning the aspectual interpretation of the unmarked form first presented in 1.2.2. However, before I can go into the grammaticalization of the unmarked past tense (Chapter 6), it is necessary to first have a look at the grammaticalization of available alternatives in the domain of IMPERFECTIVE PAST (Chapter 5).

5 The English progressive and the Dutch locatives

5.1. Introduction

It is the claim of part II of this thesis that the aspectual interpretation of the unmarked past tense in English and in Dutch as either PERFECTIVE or IMPERFECTIVE is determined by the synchronic grammaticalization of aspectually marked forms in these languages. Since, in the previous chapter, I have investigated the extent to which the present perfect covers the domain of PERFECTIVE PAST in English and in Dutch, it is necessary now to look for alternative means of expression available in the domain of IMPERFECTIVE PAST.

The verb formations to be discussed in this chapter are the progressive in English (see (1)) and the two progressive-like verb formations in Dutch given in (2)a and (2)b.

(1) To be V -ing

(2) a. aan het INF zijn
on the INF to be

b. zitten/liggen/staan/lopen/hangen te INF
to sit/lie/stand/walk/hang to INF

To distinguish the two Dutch constructions in (2) from progressives and imperfectives I will refer to them jointly as *locatives*; whenever the difference between the two types of locative is relevant, I will call them *aan het locative* (2a) and *positional locative* (2b), respectively. In section 5.2, I will briefly discuss the claim that the constructions in (1) and (2), thus including the English progressive, are "locative" in both form and meaning.

Whereas both the English progressive in (1) and the Dutch locatives in (2) cover a subdomain of IMPERFECTIVE aspect, the constraints on their use are different. After repeating what I consider to be the semantics of IMPERFECTIVE aspect (5.3), I will discuss these different constraints on the marking of IMPERFECTIVE aspect in English and Dutch (5.4). The English progressive can be used to express IMPERFECTIVE aspect for all stage-level predicates; this includes stative predicates expressing non-permanent properties (5.4.1). The Dutch locatives cannot be used with statives at all (5.4.1). This has been summarized in *Table 5.1*.

Table 5.1. The expression of imperfective aspect in Dutch and English.

Aspect	IMPERFECTIVE		
Aktionsart	Activity/Accomplishment	State	
		stage level	ind. level
English	*Progressive*		
Dutch	*Locative*		

In section 5.4.2, I will try to be more precise about the additional restrictions on the possible use of the Dutch locatives, as compared to the English progressive, within the domain of eventive predicates; these restrictions are related to such things as voice (5.4.2.1), agentivity (5.4.2.2), and habituality (5.4.2.3). Section 5.4.2.4 discusses the so-called futurate reading of the English progressive which is not available for the Dutch locatives.

While the discussion of constraints in 5.4 concentrates on the *possible* use of these constructions, section 5.5 will be dedicated to the question when the use of a progressive/locative to express IMPERFECTIVE aspect is *obligatory* in Dutch and in English. I will argue that the use of a progressive to express IMPERFECTIVE aspect is obligatory in English for all Aktionsarten except (stage-level) states, whereas the use of a locative in Dutch is obligatory only for achievements.

5.2. Locatives

Using the label of *locative* for the two Dutch constructions given in (2) is, of course, not unmotivated, as both constructions contain elements that may also be used to refer to spatial concepts.[1] The verb formation in (2)a, called a "nascent progressive" by Bybee et al. (1994: 132), contains the preposition *aan* (‘on’); Overdiep (1937: 354) claims that, originally, the construction meant about the same as "we are in (the middle of) the V-ing". As for the verb formation in (2)b, in which the finite form provides the additional information about the position of the agent, Leys (1985: 274) argues that the infinitive likewise functions,

[1] The use of such locative elements to express ongoing activities is by no means an exceptional feature of Dutch. Heine, Claudi & Hünnemeyer (1991), for instance, report that they found over a hundred African languages that developed progressives from a locative source construction (cf. Bybee, Perkins & Pagliuca 1994).

"figuratively speaking", as a locative adjunct.[2] And indeed, on the semantic side, IMPERFECTIVE aspect is often described by means of basically spatial metaphors such as "being in a situation" (Anderson 1973; Traugott 1978), or "looking at a situation from the inside" (Comrie 1976: 98-103) (see also Lyons 1977; Dik 1987: 65-68; Brinton 1988: 112-113). In these descriptions, situations are clearly being conceptualized as spatial objects. The use of spatial terms to express imperfectivity is, in fact, just one of many instances in which language uses the same means to express spatial and temporal information; the TIME IS SPACE metaphor finds its place among the most popular ones in contemporary, especially cognitive, linguistics (see, for instance, Alverson 1994 and references cited therein).

In fact, the English progressive has been claimed to be derived from a locative source as well. Especially since Vlach (1981), this claim has been often repeated in contemporary (formal) linguistics, but it is not undisputed. Thus, the progressive is said to have developed out of a construction consisting of "to be + preposition + verbal noun", much like the Dutch locative in (2)a (see Old English *he waes on huntunge*, cf. Modern Dutch *hij was op jacht* [he was on hunt], *hij was aan het werk* [he was on the work], etc.) (cf. Bybee, Perkins & Pagliuca 1994; see also Chapter 3, fn.1). Remnants of the source construction can be found in Modern English *He is a-sleep* and (regionally restricted) phrases such as *they are a-coming* and *they are a-dancing*.

However, there is an alternative account according to which the progressive developed directly out of Old English "beon/wesan + present participle" (cf. Modern Dutch *ik ben zoekende* [I am searching]; *hij is doende* [he is doing]) (Curme 1913). This construction, according to Scheffer (1974: 205), occurs "regularly and frequently" in Old English, and, moreover, not exclusively as a rendering of Latin participles. It is, however, rather infrequent in Middle English and proponents of the locative hypothesis claim that it disappeared altogether (Bybee, Perkins & Pagliuca 1994: 136). A third possibility, suggested by Jespersen (1932: 169), is that it is not an either/or issue. Instead, Jespersen hypothesizes that the progressive is the result of an amalgamation of the locative and the participial construction, and, according to Brinton (1988: 268), this view is now held by "most scholars". It will be clear that for the purpose of this study there is no need to make a choice of one or the other analysis.

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[2] It is generally accepted that the contruction originates from a construction consisting of two verb forms coordinated by *en* ('and'). Thus, *hij zit te lezen* (lit. he sits to read) would have been *hij zit en leest* (lit. he sits and reads) in Middle Dutch (Van der Gaaf 1934; Van den Toorn 1975; Leijs 1985).

5.3. IMPERFECTIVE PAST

To be able to decide what part of the semantic domain of IMPERFECTIVE aspect is covered by the progressive in English, and by the locatives in Dutch, it will be useful to first repeat my views on the semantics of IMPERFECTIVE PAST. After that, I will turn to the discussion of the progressive and the locatives as a "specific and restricted realization of the Imperfective" (Goossens 1994: 164 on the English progressive).

In Chapter 2, I argued in favour of the anaphoric view of imperfectives. Thus, I assume that for an adequate use and interpretation of an IMPERFECTIVE PAST it is necessary to anchor the situation presented to a contextually given, or inferrable, past time (either a point or an interval); an IMPERFECTIVE PAST requires the situation to be holding at this antecedent time. In combination with my decision to use the notion of reference time to denote the antecedent needed for the interpretation of imperfectives, this resulted in (3)a as the semantic representation for IMPERFECTIVE PAST. (S can be either the moment of utterance or a shifted deictic centre, see Chapter 2.)

(3) a. E,R < S
b. E < S

The category of PERFECTIVE PAST, in my view, does not require a previously given or inferrable reference time; see (3)b. PERFECTIVE PAST, furthermore, presents the past situation as a bounded one (either to the left or to the right; see esp. section 3.4.1.2).

An alternative view, and one that is particularly popular in contemporary studies on the subject, is that the category of aspect pertains to the relationship between E and R (whereas the category of tense concerns the relationship between R and S). In such proposals, R is considered to be always present in the semantic structure associated with the past tense (R < S), but the relationship between E and R differs depending on aspect. Whereas PERFECTIVE aspect is then defined as E and R coinciding (or as E being included in R), IMPERFECTIVE aspect is often defined as R *being included in* E (Johnson 1981; Van Eynde 1993; Klein 1993, 1995; Boogaart 1993, 1995). I will briefly discuss four types of cases that constitute a problem for the latter proposal, but not for the anaphoric analysis in (3)a. At the same time, these four uses of imperfectives provide a picture of the broad range that has to be captured by the semantics of IMPERFECTIVE aspect. As such, it provides a good starting point for the remainder of this chapter in which I will discuss what parts of this overall IMPERFECTIVE domain are covered by the English progressive and the Dutch locatives.

1. The characterization of IMPERFECTIVE aspect as R being included in E may seem well-suited to deal with examples such as in (4), in which the reference time provided by the *when*-clause (in (4)a) or the temporal adverbial (in (4)b) is punctual and the situation extends, as it were, on both sides of the reference point.

(4) a. When I came into the room, Mary was writing a letter.
b. Yesterday at 3 o'clock Mary was writing a letter.

However, these sentences do not claim anything more than that the situation is valid at R (E,R < S). More specifically, they do not say anything about what Mary was doing either right before or immediately after my entrance or "yesterday at 3 o'clock", respectively. Such inferences will be based on lexical content (Aktionsart) and, ultimately, knowledge of the discourse world (see 3.4.2). For instance, in (4)a it is perfectly possible that Mary stopped writing the letter *immediately after* (and in reaction to) my entrance, so that R is in fact the last moment of her writing, as in *she was walking down the street when she was hit by lightning*.

2. In Chapter 2, I discussed Dutch utterances such as those given in (5). This sentence can, for instance, be used as an answer to the question "What was that sound I heard?' (As this is the reading I have in mind, I render it in English by means of a progressive verb form.)

(5) Ik draaide het gas uit.
I turned the gas off
'I was turning off the stove.'

Regarding the sound as providing R, we end up with a representation in which E and R coincide; being conceptualized as non-durative, the time of the situation does not extend beyond its reference time and yet one typically finds imperfectives being used in such contexts (see section 2.3.2).

3. A further group of counterexamples to the definition of IMPERFECTIVE PAST as "R being included in E" is constituted by individual-level predicates (Carlson 1981; Kratzer 1994; Musan 1995), such as in the italicized clause of (6) (Boogaart 1996).

(6) At her funeral, everyone said that *Mary was a great teacher*.

If we regard the duration of Mary's lifetime or at least a relevant subpart thereof as providing R, then her property of being a good teacher characterizes the entire

interval; in any case, E does not *include* R, and yet languages typically use imperfective forms to present such individual-level properties (2.3.4).

4. Finally, the characterization of IMPERFECTIVE in (3)a is also much better suited to deal with habitual readings, which often arise with imperfective verb forms. An alternative interpretation of an IMPERFECTIVE achievement such as, for instance, (5), and one that is much more widely discussed in the literature than the reading discussed above, is one in which multiple instances of E are contained within a relevant interval of time in the past ("I was always the one responsible for turning off the stove in those days"); another example is English (7) (Goossens 1994: 172).

(7) In those days, they were having breakfast in the dining room.

I feel that the habitual interpretation of imperfectives can be represented in just the same way as that of the individual level predicate in (6), thus as E holding during the entire interval R.[3] (The issue of habituality will be taken up in somewhat more detail in section 5.4.2.3.)

A semantic characterization of IMPERFECTIVES in terms of anaphoric reference, which requires simultaneity with a (explicit or implicit) antecedent, as in (3)a, allows for a much greater generalization than a definition which requires R to be contained within E. The semantics of IMPERFECTIVE aspect given above is also sufficiently vague to capture all uses of the English progressive and the Dutch locatives. However, characterizing the progressive and the locatives as in (3)a, thus as IMPERFECTIVE, does not give us much insight into their use. In particular, although all instances of progressives and locatives may give rise to an IMPERFECTIVE reading of the situation they present, the reverse does not hold: not all imperfective readings are marked by a progressive in English or by a locative in Dutch. In some cases, the marking is not obligatory; in other cases, it is not even possible. In other words, the English progressive and the Dutch locatives cover only part of the IMPERFECTIVE domain. The Dutch locatives, in turn, cover only part of the semantic domain covered by the English progressive. In section 5.4, I will show when the progressive and the locatives *can* be used. In section 5.5, I will discuss when the progressive and the locatives *must* be used in order to obtain an IMPERFECTIVE reading.

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[3] The habitual/iterative reading of (5) and (7) follows from Aktionsart and knowledge of the world (cf. *In those days my hair was blond*, which does not suggest repetition), see section 5.4.2.3.

5.4. *Possible* use of progressive and locatives

5.4.1. States

The fact that the English progressive and the Dutch locatives in *Table 5.1* do not cover the entire domain of IMPERFECTIVE aspect has, first and foremost, to do with restrictions on their use in the domain of Aktionsart. It has often been remarked that the English progressive is incompatible with states. In fact, Vendler (1967) uses the inability to occur with a progressive as a criterion to distinghuish states (and achievements) from other Aktionsarten. Even though Vendler's claim is too strong (see below), it points to a restriction on the use of the progressive (and, for that matter, the Dutch locatives) that is crucial for the purpose of this thesis.

Before going into the issue of how the progressive and the locatives combine with states, it is important to note that, in fact, these constructions as a whole always present states (Vlach 1981; Moens 1987; Moens & Steedman 1988; Kamp & Reyle 1993). In my discussion of the perfect construction in Chapter 4, I pointed out the advantages of a compositional analysis of the perfect, in which the finite and the non-finite part of the construction are assumed to each express a situation in their own right. More specifically, the finite verb form of the present perfect expresses a state holding at the point of speech; the time of the (situation presented by) the past participle is anterior to the time of the finite verb form. Now, the finite verb form of the progressive and the locative verb formations likewise refers to a state holding at a definite moment in time. Thus, just as in the case of the perfect, these verb formations arguably express two situations rather than one. However, in the case of the progressive and the locatives the time of the finite and non-finite part of the construction are simultaneous. Distinguishing between the two times would, therefore, only unnecessarily complicate the discussion and, unlike in Chapter 4, I will not systematically do so in this chapter.[4] The discussion will deal almost entirely with the restrictions on what is allowed to occur in the non-finite part of these constructions.

I. English

A useful distinction to be made within the category of states is the one between stage-level and individual-level predicates (or between temporary and permanent

[4] An important exception is constituted by the future readings allowed for by the English progressive. I will argue in 5.4.2.4 that, on this reading, the time of the finite and non-finite part of the construction are not simultaneous.

properties).[5] For individual-level predicates, Vendler's claim about the incompatibility of states and progressives seems to hold, see (13).

(8) * Mary was having blue eyes.

The only interpretation available for clauses containing a progressive is a stage-level one (Carlson 1979) and our world knowledge about a property such as having blue eyes does not easily support an interpretation in which this is understood to be a temporary property of Mary's. All the examples that have been offered in the literature to falsify Vendler's claim that states cannot be presented by means of a progressive, are either of the stage-level kind or at least allow for a stage-level reading, such as /be silly/, /be kind/, /be crazy/, /be clever/ etc. If the latter type of properties are presented by means of a progressive, they automatically receive a stage-level reading. Therefore, we can say that the English progressive cannot be used to present indivdidual-level predicates at all, because when they are, they stop being individual-level predicates; see, for instance, (9)a.

(9) a. Mary was being a good teacher.
b. Mary was a good teacher.

One can imagine (9)a being used in a situation in which Mary, at some definite moment in time (R), is performing some specific activity associated with being a good teacher; (9)a, however, cannot give rise to an interpretation, which is available for (9)b, in which (a relevant part of) the whole lifetime of Mary is taken as R (cf. discussion of (6) and (7)). The latter reading can be characterized as IMPERFECTIVE - it is typically presented by means of imperfective forms in languages that do mark IMPERFECTIVE aspect for all statives (see 2.3.4). Therefore, the category of individual-level predicates clearly constitutes a part of the IMPERFECTIVE domain that is not covered by the English progressive.

II. Dutch

Dutch locatives are incompatible with individual-level readings, just as the English progressive is. The use of the Dutch locatives in (10)a and (10)b is at least as deviant as the use of a progressive in English (8).

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[5] It should be noted that these terms, introduced by Carlson (1979), do not exclusively apply to states. More specifically, all (non-habitual) eventive clauses are considered to represent stage-level predicates.

(10) a. * Ze was blauwe ogen aan het hebben.
she was blue eyes on the have
'She was having blue eyes.'
b. * Ze zat blauwe ogen te hebben.
she sat blue eyes to have
'She sat having blue eyes.'

In fact, the Dutch locatives are simply incompatible with states, whether they denote temporary or permanent properties. Whereas English (11)a, presenting Mary's living in London as holding at some time in the past, is fine, Dutch (11)b and (11)c sound odd.

(11) a. She was living in London at the time.
b. ? Ze was in London aan het wonen.
She was in London on the live
'She was living in London.'
c. * Ze zat in London te wonen.
She sat in London to live
'She sat living in London.'

Likewise, even if we imagine a situation in which /be a good teacher/ refers to a stage-level property, such as suggested for English (9)a above, use of the Dutch locatives in (12)a and (12)b remains strange.

(12) a. ? Mary was een goeie lerares aan het zijn.
Mary was a good teacher on the be
'Mary was in the middle of being a good teacher.'
b. ? Mary zat een goeie lerares te zijn.
Mary sat a good teacher to be
'Mary sat being a good teacher.'

This is not to imply that stative predicates in Dutch can never be combined with a locative verb formation. Rather, the possibility of using a locative to present a state is even more restricted in Dutch than it is in English. An example from actual usage is provided in (13).

(13) [...] de volslanke blondine die met een niet aflatende glimlach en een virtuoos gemak achter de vleugel een van ‘s werelds meest bekwaamste ladies of jazz zat te wezen (*Corpus Eindhoven* 17773)
‘[...] the well-rounded blond who with an incessant smile and virtuous ease sat being one of the world’s most skilled ladies of jazz.’

The stage-level property is not a sufficient condition for the use of a locative in Dutch, as it is for the use of a progressive in English. Thus, it is not enough for living in London in (11)b-c, being a good teacher in (12), and being a skilled lady of jazz in (13) to be conceptualized as a temporary property in order for the use of a locative to be felicitous. In addition, we interpret the subject referent in the Dutch sentences as someone who is rather busy being, or trying to look like, a person who is living in London, a good teacher, or a highly skilled jazz singer, respectively. The infinitives are not interpreted as presenting stage-level predicates, but rather, more specifically, as presenting activities, carried out by a volitional agent. This additional aspect of the interpretation of "locative states" in Dutch is not always absent from "progressive states" in English (*you were being a man again*). Indeed, being a subset of all stage-level interpretations, the activity interpretation is compatible with my earlier claim about the progressive. In Dutch, however, the active involvement of the agent is a necessary condition for the use of a locative to present a so-called stative predicate. In fact, the use of a locative shows that the situation presented by means of the infinitive is not conceptualized as a state at all, but rather as an activity. Just as the use of a progressive to denote an individual-level property in English shows that the situation is conceptualized as a stage-level property.

Therefore, we can conclude that the Dutch locatives indeed cannot be combined with predicates that function as states at all; the English progressive is compatible with stage-level states, but incompatible with individual-level predicates. The synchronic grammaticalization of the progressive and the locatives as the expression of IMPERFECTIVE ASPECT for the category of states is represented in *Table 5.2* below; the Dutch locatives are absent from the table altogether.[6]

[6] The English progressive is represented as covering only part of the IMPERFECTIVE domain of stage-level statives because its use does not seem to be obligatory to get an imperfective reading of stage-level statives (e.g. *She lived in London* allows for an imperfective reading, just like *she was living in London* does, see section 5.5.1).

Table 5.2. Synchronic grammaticalization of the English Progressive and the Dutch locatives for the category of states.

Aspect	IMPERFECTIVE	
Aktionsart	States	
	stage-level	individual-level
English	*Progressive*	
Dutch		

To conclude this section, it should be noted that a further category of states that does not allow for the use of either a progressive in English or a locative in Dutch is constituted by the states denoted by the finite verb form of perfect verb formations. This is shown for English in (14), and for Dutch in (15).

(14) * He is having written a letter.

(15) a. * Hij is een boek gelezen aan het hebben.
he is a book read on the have

b. * Hij zit een boek gelezen te hebben.
he sits a book read to have

This may seem like a trivial observation, but the IMPERFECTIVE value of such states plays an important role throughout this study. In particular, it allows for a unified explanation for the possible interpretations of (16)a-c.

(16) a. He said that she was a good teacher.
b. He said that she was reading a book.
c. He said that she had written a letter.

All three sentences in (16) allow for two readings, which have traditionally been called a "simultaneous" and a "backshifted" reading. In Chapter 2, I offered a unified explanation for these readings by assuming that the embedded clauses in (16)a-c contain a [- perfective] verb form. Given my definition of IMPERFECTIVE aspect, the situation needs to be linked to a contextually given reference point. This R may be provided by the matrix clause, resulting in a simultaneous reading, or it may be a time preceding the time of the matrix, resulting in a backshifted

reading. (In (16)c, the time of writing, in addition, precedes the time of *had*.) Now, an explicit marking of IMPERFECTIVE aspect can be found only in (16)b, containing a progressive in the embedded clause. However, in my view, the embedded state in (16)a and the state denoted by the finite verb form of the perfect in (16)c are equally IMPERFECTIVE. The fact that the latter two are not marked as such by the progressive has to do with the constraints on the use of the progressive discussed in this subsection. Use of a progressive in (16)a would result in a different interpretation of the predicate (see (17)a, cf. discussion of (9) above); use of a progressive in (16)c would result in an ungrammatical utterance (see (17)b).

(17) a. He said that she was being a good teacher.
b. * He said that he was having written a letter.

Thus, in Dutch and English the expression of IMPERFECTIVE aspect has not (fully) grammaticalized for states. The constraint discussed in this section obviously has important implications for the interpretation of the unmarked past tense in Dutch and English. More specifically, clauses presenting states in English and Dutch can be [-perfective] without being marked as such by either a progressive or a locative form (see Chapter 6).

In the domain of events, the expression of IMPERFECTIVE aspect by means of a progressive or a locative is possible in both English and Dutch. However, just as in the domain of states discussed in the previous subsection, there are again more restrictions on the use of the Dutch locatives than there are on the use of the English progressive. The following section discusses these additional restrictions on using the Dutch locatives to express IMPERFECTIVE aspect in event-clauses.

5.4.2. Events

5.4.2.1. Voice. A first restriction on the use of the Dutch locatives, in comparison with the English progressive, has to do with voice. Dutch *worden* (‘to become’) when used as an auxiliary of the passive, as in (18)a, cannot be marked by a locative verb formation, as is illustrated in (18)b and (18)c (cf. Vismans 1982; Kirsner 1996).

(18) a. De krant werd gelezen.
the paper became read
b. * De krant lag gelezen te worden.
the paper lay read to become

c. * De krant was gelezen aan het worden.
the paper was read on the become

English passive progressives such as in (19), on the other hand, are quite common.

(19) The paper was being read.

As a consequence, Dutch (18)a can be either PERFECTIVE or IMPERFECTIVE; in the latter case, it cannot be marked as such by a locative verb formation.

Kirsner (1996) argues that the unacceptability of (18)c can be explained by the fact that the Dutch locative is typically used with agents and that conceptualizing the subject referent in a passive construction as an agent is impossible. Kirsner, therefore, calls sentences such as (18)c (as well as sentences such as *het boek is bezig door Jan gelezen te worden* [lit. the book is busy being read by Jan]) "inferentially schizophrenic" (1996: 166). This, however, cannot fully explain the facts in (18). The Dutch locative often triggers an agentive interpretation (see (11)-(13)), but it does not always do so. In particular, the *aan het* locative can be used with verbs expressing "gradual change", as in (20), without necessarily imposing an agentive interpretation on the subject.

(20) Je bent oud aan het worden.
you are old on the become
'You're getting old.'

Cornelis (1997) has argued that *worden* ('to become') in the passive denotes a process, more specifically, "a process towards a final state", just as *worden* in (20) does.[7] Thus, according to Cornelis's definition, the passive auxiliary "worden" is in fact a "gradual completion verb". As this is the one category of verbs for which the Dutch locative does not require an agentive interpretation (see (20), cf. the following subsection), the unacceptability of (18)c, as opposed to (19), is not fully explained by pointing out that the clause does not contain an agentive subject.

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[7] This semantic characterization is better suited for telic predicates than for atelic predicates (as in *Lubbers werd jarenlang door zijn broers gesteund* [Lubbers was supported by his brothers for years]) because the latter do not refer to any *final state* (Janssen 1986: 66, 75 fn.14). The problem is, therefore, similar to the one noted for the resultative analysis of the perfect discussed in 4.3.1. In addition, Cornelis's proposal is better suited for imperfective readings than it is for perfective readings, because the latter include the right bound (and thus the *final state*) as much as *the process towards* it; in fact, non-durative situations arguably do not have a process-phase at all and yet they are fine with the passive (see *hij werd neergeschoten* [he was shot]).

Possibly, the difference between English and Dutch is caused by the fact that Dutch uses *worden* (‘to become’) as the passive auxiliary, whereas English uses *to be*. Dutch *worden*, like English *to become*, has "processual" meaning; it denotes change in time. The English passive auxiliary *to be*, however, denotes a *state* (no change). English (21) can be used not only to present the process of a house being built (the processual passive), but also to present the property of a house having been built (the stative or perfect passive). On the second reading, the clause presents the RESULT STATE of being built rather than the process leading up to it.

(21) The house was built.

Dutch distinghuishes between the two readings by using the auxiliaries *worden* (‘to become’) and *zijn* (‘to be’), respectively, see (22).

(22) a. Het huis werd gebouwd.
the house became built
‘The house was being built.’
b. Het huis was gebouwd.
the house was built
‘The house was built.’

A tentative explanation for the difference observed could, therefore, be that there was a stronger need for a passive progressive (*the house was being built*) to develop in English than there was in Dutch (**het huis was gebouwd aan het worden*); the passive progressive only allows for the processual passive reading. The Dutch passive auxiliary *worden* (‘to become’) denotes a dynamic process anyway, so there is less need to mark it as such.

Support for this hypothesis can be found in the fact that the English passive progressive did not develop until the *weorden*-passive had disappeared from the language (Denison 1983). Still, use of the passive progressive in English was condemned until at least the end of the previous century. In *Words and their Uses* (1891), Richard Grant White calls the construction a "monstrosity", which "means nothing and is the most incongruous combination of words and ideas that ever atteined respectable usage in any civilized language" (cited by Scheffer 1974: 264). In Dutch, the need for the development of a "monstrosity" like (19) was presumably less felt given the semantics of the passive auxiliary *worden* (‘to become’) as opposed to *to be*.

5.4.2.2. Agentivity and gradual change. In section 5.4.1, I noted that if a stative predicate, such as /be an imporant jazz singer/ in (23), is presented by means of a

locative verb formation in Dutch it gets a kind of activity reading. More specifically, in (23) the subject referent is understood to be actively involved in being, or looking like, an important singer.

(23)	a.	Ze	zat	een belangrijke jazz-zangeres	te zijn.
		she	sat	an important jazz-singer	to be
	b.	Ze	was	een belangrijke jazz-zangeres	aan het zijn.
		she	was	an important jazz-singer	on the be

The conclusion that the Dutch locatives always need an agentive subject is, however, not warranted. This is *a fortiori* true of the English progressive; as argued in 5.4.1, it is a sufficient condition for its use that the situation is conceptualized as a stage-level predicate. Thus, (24), in which the non-finite form presents an activity, but not one with an agentive subject, is fine in English.

(24) The plane was flying to Los Angeles, when...

In Dutch, however, the agentivity of the subject referent is more important. Dutch (25)a, adapted from Van Voorst (1988: 24), is nonsensical.

(25)	a.	*	Het vliegtuig	zat	naar LA	te vliegen,	toen...
			the plane	sat	to LA	to fly	when...
	b.	?	Het vliegtuig	was	naar LA	aan het vliegen,	toen...
			the plane	was	to LA	on the fly	when...

This is not surprising if we assume that, rather than being mere auxiliaries of aspect, the "positional verbs" (most notably *zitten* [to sit], *staan* [to stand], *liggen* [to lie], and *lopen* [to walk]) have retained so much of their lexical meaning that their use is restricted to those subjects that can actually sit, stand etc. This is not to imply that literal sitting, standing etc. have to be involved. Rather, it is a necessary condition for the use of these positional locatives that the lexical verbs *zitten* [to sit], *staan* [to stand] etc. can be used for the subject at hand. Thus, as in Dutch books can be said to *liggen* (to lie) on a desk, one can also say *de boeken liggen op je te wachten* (lit. the books lie to wait for you) (cf. Vismans 1982).

The restrictions on the use of the positional locative are, therefore, relatively clear and I will focus the discussion on the Dutch *aan het* locative, as used in (35)b.[8]

To many people, use of the locative in Dutch (25)b sounds awkward. This is caused by the fact that the airplane does not easily allow for an agentive interpretation (cf. Heinamäkki 1995 on the "purposefulness" required for the use of the Finnish locative). All native speakers, indeed, accept (26) when uttered by the pilot of the airplane or by a passenger inside the plane.

(26) Ik was naar LA aan het vliegen, toen...
I was to LA on the fly when
'I was flying to LA, when...'

In accordance with the requirement of a volitional subject, and with Heinamäkki's notion of purposefulness, the Dutch *aan het* locative, unlike the English progressive, cannot be used to give orders, cf. (27)a and (27)b.

(27) a. Be waiting here when I come back.
b. ? Wees hier aan het wachten wanneer ik terugkom.
be here on the wait when I come-in

However, there is a group of uses that does not require an agentive subject at all for the *aan het* locative to be felicitous; this group is constituted by clauses presenting "gradual change". An example of this use was provided in (20), repeated here as (28)a; an interesting one in light of the unacceptability of (25)b is given in (28)b.

(28) a. Je bent oud aan het worden.
you are old on the become
'You're getting old.'

[8] According to Vismans (1982: 152), a further restriction on the positional locative is that it can only refer to unbroken (un-interrupted) activities. I do not believe this to be true in an absolute sense; thus, I do not agree with Vismans's claim that when talking to someone on the phone one can only say *Ik sta te koken* [lit. I stand to cook] if the phone is located in the kitchen. Also, a sentence such as *Ik zit een brief aan mijn ex te schrijven* [I am sitting writing a letter to my ex] can be uttered by someone who is in fact having a beer at the pub at the moment of speaking. It is true, however, that using a locative is strange for telic situations the endpoint of which could not, in principle, be reached within one occasion of sitting, lying etc. (?*Ik zit een dissertatie over aspect te schrijven* [I sit writing a dissertation on aspect]).

b. Het vliegtuig was aan het opstijgen.
the plane was on the rise
'The plane was taking off.'

All 30 instances of the combination *aan het* INF *zijn* occurring in the so-called Eindhoven Corpus belong either to the group of agentive activities or to the group of gradual changes. In the corpus, the latter group consists of the following verbs: *worden* [to become], *zich vernieuwen* [to renew oneself], *verkerkelijken* [to become a churchgoer], *veranderen* [to change], *verouderen* [to get older], *uitbreiden* [to expand], *verminderen* [to decrease], en *wegebben* [to lessen]. These verbs belong to Bertinetto & Squartini's (1995) class of "gradual completion verbs", which they argue, on independent grounds, to constitute an Aktionsart class of their own.[9]

The groups of clauses having an agentive subject and clauses presenting a gradual change are, of course, not mutually exclusive. More specifically, gradual changes might be purposefully carried out by an agent-like subject, as is the case in (29) (taken from the Eindhoven Corpus).

(29) De Rooms-Katholieke kerk is zich aan het vernieuwen.
the roman-catholic church is itself on the renew
'The Roman Catholic church is in the process of renewing itself.'

However, gradual developments do not *need* to be [+ agentive] for the *aan het* locative to be felicitous (see (28)a and (28)b). Thus, the *aan het* locative can be used for (a) [+ agentive] activities, and (b) gradual changes (that can be either [+ agentive] or [- agentive]). Most relevant for the purpose of this thesis is the fact that the Dutch locatives are incompatible with situations that are conceptualized neither as agentive, nor as a gradual development (see below for some exceptions). It should be noted that this generalization also covers the fact that states cannot occur as the non-finite part of these constructions (5.4.1).

It is an interesting question what the common denominator is of agentive situations and non-agentive gradual changes that justifies the use of one and the same form for the expression of IMPERFECTIVE aspect in both cases. The answer will probably involve "change" or "dynamicity". It is, however, hard to see how such an inevitably vague semantic characterization of the *aan het*-locative would be helpful for the purpose of this study; in fact, the English progressive is often

[9] As examples Bertinetto & Squartini list: *to increase, to decrease, to improve, to get worse, to change, to sink, to enlarge, to reduce, to fatten*, and *to slim* (1995: 11).

argued to express precisely change or dynamicity as well. Still, a notion like this is probably needed to account for certain counterexamples to the above generalization on the range of the Dutch locatives. For instance, people who find (25)a, repeated as (30)a, awkward all agree that it can be used to contrast a situation of the plane flying to an immediately preceding situation of the plane not flying.

(30) a. Het vliegtuig was naar LA aan het vliegen.
the plane was to LA on the fly
'The plane was flying to LA.'

b. En nú is het aan het vliegen.
And now is it on the fly
'And now it is flying.'

Suppose one is describing some difficult take-off. There comes a moment at which the plane is actually flying and at that moment one can utter (30)b, without suggesting anything about the agentivity of the airplane or the purposefulness of the action. The use of a locative in these cases seems to be triggered by the explicit focusing on a definite moment (reference point) in time (as opposed to an immediately preceding moment) which in the case of (30)b is constituted by the first moment of flying.

Further examples that do not involve any kind of agentivity or volitionality include *Het was aan het regenen* [it was raining] and *je was weer lelijk aan het hoesten* [you were coughing badly]. Possibly, /raining/ and /coughing/ are considered dynamic enough to allow for the use of *aan het* without any further agentivity being required. However, notions such as "dynamicity" or "change" are obviously hard to make precise and the same is true in fact of such things as "agentivity" and "gradualness". The restrictions on the use of the locative discussed here are quite subtle and, moreover, native speakers' judgements about sentences such as (30)a vary considerably. Still, it is clear that the possible use of the Dutch locatives covers only a subdomain of the possible use of the English progressive, and that "agentivity" and "gradual change" are important, abeit surely not the only relevant, notions with which to describe the restricted use of the Dutch locative.[10]

[10] In their discussion of English *to be in the middle of*... Kirsner & Van der Kloot (1998) address the intriguing question why locatives are typically associated with the notion of agentivity. It can be noted that the restrictions on the use of the Dutch *aan het* locative are highly similar to those on the use of English constructions like *to be in the middle of* (or *to be in the proces of*).

5.4.2.3. Habituality. A further part of the IMPERFECTIVE domain that is (partly) covered by the English progressive but not by the Dutch locatives is constituted by habitual meaning. The English progressive can be used to present a repeated event in the past, as in Goossens's (1994: 172) example given in (7), repeated as (31)a; see also (31)b.

(31) a. In those days they were eating breakfast in the dining room.
b. When I was a grad student I was swimming a lot.

In 5.3, I argued that such habitual interpretations are covered by my semantic characterization of IMPERFECTIVE as E,R < S. In (31), a salient interval from the past (R) is given by the context (and, indeed, explicitly by *in those days* and *when I was a grad student*) and the situation (E) may be considered to characterize the complete interval. In this respect, the interpretation of the sentences in (31) is similar to that of an individual level predicate which is typically presented by means of an imperfective (*Mary was a good teacher*) (cf. 2.3.4). However, in the latter case we obviously do not get a repetitive reading of the sort exemplified in (31). The repetition in (31) does not arise only because an IMPERFECTIVE progressive was used. It arises out of the combination of an extended "reference interval" (as denoted by *in those days* and *when I was a grad student*) and the extra-linguistic knowledge that one does not usually have breakfast, or swim, uninterruptedly for a period of time such as that denoted by *in those days* or *when I was a grad student*. The latter interpretation, in which E is taken to characterize the entire interval R, does arise if, for instance, the reference interval is shorter, as in (32)a, or the clause presents an atelic predicate such /have blond hair/ in (32)b.

(32) a. The entire morning they were eating breakfast.
b. In those days my hair was blond.

As for the Dutch locatives in (33)a and (33)b, these sentences cannot be used to present a repeated occurrence of an event in the past in the same sense as English (31)a can.

(33) a. In die tijd waren ze aan het ontbijten in de eetkamer.
in that time were they on the breakfast in the dining room
'In those days they were in the middle of having breakfast in the dining room.'
b. In die tijd zaten ze te ontbijten in de eetkamer.
in that time sat they to breakfast in the dining room
'In those days they sat having breakfast in the dining room.'

c. In die tijd ontbeten ze in de eetkamer.
in that time breakfast they in the dining room
'In those days they had breakfast in the dining room.'

Rather, (33)a and (33)b, as opposed to (33)c containing an unmarked past, seem to be talking about one particular occasion of having breakfast contained within the interval denoted by *in die tijd*. Indeed, these Dutch sentences get much better if we add an adverb such as *een keer* ('once') and a continuation such as *toen plotseling*.... ('when all of a sudden...'). On this reading, a punctual reference time is constructed for the interpretation of the IMPERFECTIVE locative. This reading of Dutch (33)a and (33)b is, of course, also one of the interpretations of English (31)a, but in English the durative, habitual reading is available as well; the latter reading is expressed in Dutch by means of the unmarked past, as in (33)c.

There is an interpretation available for the Dutch locatives that, at first sight, looks like a habitual one, but that is still qualitatively different from the one available for English (31) (and Dutch (33)c). This reading can be triggered by, for instance, an adverb such as *vaak* ('often'), as in (34).

(34) In die tijd waren ze vaak daar aan het ontbijten.
in that time were they often there on the breakfast
'In those days they were often having breakfast there.'

The sentence in (34) gives rise to an interpretation that looks similar to that of English (31). However, it is subtly different. Specifically, (34) refers to multiple occurrences of E holding at multiple instances of R. Thus, what is repeated is the reference point at which the situation holds rather than the complete occurrence of the situation itself; on this reading, the reference time is still a point rather than an interval. Interestingly, Bickel (1996: 33) uses the availability of a habitual reading of the sort exemplified in (31), as opposed to the one in (34), to distinguish between the English progressive and a Swiss German locative that is highly similar to the one in Dutch (34) (cf. also the distinction between *focalized* PROG and *durative* PROG as made by Bertinetto, Ebert & De Groot (to appear)). It should be noted that the requirement of a punctual reference time cannot be regarded as a semantic feature of the Dutch locatives. The sentence in (35), the Dutch equivalent of English (32)a, for instance, is fine.

(35) We waren de hele ochtend aan het ontbijten.
We were the whole morning on the breakfast
'We were having breakfast all morning.'

Still, (35) is talking about one uninterrupted occasion of having breakfast, which happens to last the entire morning; a habitual reading of the sort allowed for English (31) does not arise.[11]

Taking a diachronic perspective, Bybee et al. (1994) claim that "a major step" in the development from a progressive to an imperfective is "the extension of the progressive to express habitual meaning" (Bybee et al. 1994: 141). From a synchronic perspective, it was noted that habitual readings are, indeed, covered by my semantic characterization of IMPERFECTIVE PAST. The findings on habituality, like those on the passive 5.4.2.1 and on agentivity and gradual change in 5.4.2.2 thus support and specify the claim that the English progressive covers a greater part of IMPERFECTIVE aspect than the Dutch locatives do. However, it should be noted that the use of a progressive does not constitute the unmarked way in English to express habituality *per se*; the use exemplified in (31) seems fairly restricted. More specifically, the progressive is exclusively used for habits that are limited in time; it is typically accompanied by adverbial phrases such as, for instance, *in those days* in (31)a, and *every day now* in (36).

(36) I'm playing tennis every day now (Bybee et al. 1994: 277)

5.4.2.4. Futurate readings. To conclude this section, I want to mention one further use of the English progressive that is not shared by the Dutch locatives, namely the so-called futurate use illustrated in (36)a.

(36) a. I am leaving tomorrow at 3 o'clock.
b. Ik ben morgen om drie uur aan het vertrekken.
I am tomorrow at three hour on the leave
'I will be in the middle of leaving tomorrow at three o'clock.'

While both English (36)a and Dutch (36)b refer to a situation of leaving to be situated in the future, they do so in different ways. The difference can be represented as in (37)a and (37)b.

(37) a. BE(*tomorrow at 3 o'clock* (LEAVE))
b. *tomorrow at 3 o'clock* (BE (LEAVE))

[11] The Dutch locatives do give rise to a repetitive interpretation when the infinitive presents a non-durative situation, as in *Hij stond op de deur te kloppen* ('he stood knocking on the door') and *Hij was weer lelijk aan het hoesten* ('he was coughing nastily'). There clearly is a difference between repetition/iteration and habituality but it is hard to determine the cut-off point between the two.

The adverbial phrase *morgen om drie uur* ('tomorrow at three o'clock') imposes a future reading on the present tense (*ben* 'am') in Dutch (36)b. The Dutch present tense is compatible with future interpretations (or, to put it differently, future marking is not obligatory in Dutch), as is evidenced in (38)a.

(38) a. Ik vertrek morgen om drie uur.
I leave tomorrow at three hours
b. I leave tomorrow at three o'clock.

In (36)b, as represented in (37)b, this future has scope over the locative. The resulting interpretation is one in which the state denoted by the finite verb form (*ben* 'am'), as well as the activity of leaving denoted by the non-finite part of the construction, is presented as holding at a punctual reference time (E,R) to be situated in the future (cf. English *I can't make it tomorrow at three because I will be attending a class at that time*).

In English (36)a, the adverbial phrase *at 3 o'clock* has scope only over the leaving. The representation in (37)a explains why the present tense in (36)a can be used to present a situation in the future. This is possible in English only if sentences such as (38)b refer to a scheduled situation; the progressive in (36)a does not have any such restrictions. Normally, if the present tense is in the scope of the adverbial phrase, future marking is obligatory in English (**I tomorrow am leaving at 3 o'clock; tomorrow at three o'clock I will be leaving*). In my view, it is not the present tense (*am*) in (36)a that gets a future reading, as is the case in Dutch (36)b. Rather, English (36)a can be paraphrased as "it is now the case that I BE in a state of leaving tomorrow at three o'clock". The reference time required for the interpretation of the IMPERFECTIVE state denoted by "am" coincides with the point of speech. On the future reading, the time of the finite form (*am*) and the time of the non-finite form (*leaving*) are not simultaneous. It is hard to see how a non-compositional analysis of the progressive could explain the future reading and, in particular, the fact that combining a present tense with an adverb referring to the future does not result in an ungrammatical utterance in sentences such as (36)a.

In support of my analysis of (36)a, it can be noted that the two parts that make up the English progressive even allow for independent temporal modification, as in (39)a.

(39) a. (Yesterday it seemed like I would leave tomorrow at two, but)
I am now leaving tomorrow at three o'clock.

b. * Ik ben nu morgen om drie uur aan het vertrekken
I am now tomorrow at three hours on the leave
'I am now in the middle of leaving tomorrow at three o'clock.'

The fact that this is not allowed in Dutch (39)b shows that the time of the finite and the time of the non-finite part of the Dutch locatives are simultaneous. This is what constitutes the difference between English (36)a and Dutch (36)b; in the latter case the reference time needed for the linking of the IMPERFECTIVE state denoted by *ben* ('am') is itself situated in the future, and given explicitly by *morgen om drie uur* ('tomorrow at three o'clock'), and the times of the finite and non-finite verb form are simultaneous.

The availability of so-called futurate readings for the English progressive, and the lack thereof for the Dutch locatives, seems again to be related to the fact that the English progressive covers a greater part of the IMPERFECTIVE domain. In fact, the future reading of imperfectives seems to be part of a more general connection between IMPERFECTIVE aspect and modality. However, exactly how modal readings are related to the semantics of IMPERFECTIVE aspect needs further investigation, see section 7.5.

To sum up the discussion thus far, I have argued that the English progressive can be used to express IMPERFECTIVE aspect for all stage-level predicates, and this includes states presenting non-permanent properties. The Dutch locatives cannot be used to present states at all and, furthermore, within the domain of events, they cannot be used:

I. When the predicate is non-agentive, unless it denotes gradual change (see 5.4.4.2, which also presented some counterexamples).
II. In passive clauses (5.4.4.1).
III. To express habits (5.4.4.3).
IV. To express future time (5.4.4.4).

I-IV do not present interpretations that are incompatible with the semantics of IMPERFECTIVE aspect. There is, for instance, no intrinsic reason why non-agentive predicates or passives could not present situations that hold at a contextually provided moment in time; as for habitual and future readings, I have argued that they are indeed typically presented by means of imperfective forms. Thus, I-IV clearly present constraints on the use of the Dutch locatives within the domain of IMPERFECTIVE aspect.

I will now turn to the question when the marking of IMPERFECTIVE aspect by means of a progressive in English or a locative in Dutch is not merely possible, but in fact obligatory to get an IMPERFECTIVE reading. As was already argued in

Chapter 1 (section 1.5.1), and will be argued in more detail in Chapter 6, the issue of obligatoriness of marking is a crucial one in understanding the interpretation of unmarked forms, such as the simple tenses of Dutch and English to be discussed in Chapter 6.

5.5. *Obligatory* use of progressive and locatives

5.5.1. States

As for the category of states, in the few cases in which the marking of IMPERFECTIVE aspect in Dutch and English is possible at all - most notably with non-permanent states in English (see 5.4.1) - it is never obligatory to express IMPERFECTIVE aspect. Compare, for instance, the a- and b-sentences of (43)-(45).

(43) a. Mary lived in London at the time.
b. Mary was living in London at the time.
(44) a. Mary misses her mother very much.
b. Mary is missing her mother very much.
(45) a. Mary wore a beautiful dress.
b. Mary was wearing a beautiful dress.

The predicates /live in London/ in (43), /miss her mother/ in (44), and /wear a dress/ in (45) can be considered stage-level predicates and, indeed, they do allow for the use of a progressive, as is evidenced in the b-sentences of (43)-(45). (Use of the Dutch locatives is infelicitous in all of them.) Still, the difference between the b-sentences, containing a progressive, on the one hand, and the a-sentences, containing a simple past tense, on the other hand, does not coincide with the semantic difference between PERFECTIVE and IMPERFECTIVE aspect. For an adequate interpretation, the b-sentences require a salient moment in time (R) to be provided by the surrounding discourse; the situation (E) is interpreted as holding at this moment in time. This interpretation, however, is not incompatible with the a-sentences either. The difference between the a-sentences and b-sentences can therefore not be exhaustively described in terms of the opposition between PERFECTIVE and IMPERFECTIVE aspect.

This is even more clear for sentences such as English (46) and Dutch (47). (This type of sentence was already discussed in 5.4.1.)

(46) a. John was crazy.
b. John was being crazy.

(47) a. Mary was een goede lerares.
Mary was a good teacher
'Mary was a good teacher.'

b. Mary zat een goede lerares te zijn/wezen.
Mary sat a good teacher to be
'Mary sat being a good teacher.'

In (46)b, being crazy is interpreted as a temporary property of John's; it can be paraphrased as "John was behaving crazily"; the only intepretation that can be given to Dutch (47)b is an ironic one in which Mary is trying very hard to look like a very good teacher. Clearly, the difference between these sentences and the a-sentences, containing unmarked past forms, is not constituted by the difference between IMPERFECTIVE and PERFECTIVE aspect; (46)a and (47)a, in fact, are typically interpreted as IMPERFECTIVE as well (see 5.5.3).

Turning now to events, the expression of IMPERFECTIVE aspect in event clauses is always obligatory in English, whereas in Dutch it is only obligatory in a very few cases. In order to determine those cases, it is necessary to make a distinction, within the class of events, between achievements (5.5.2), on the one hand, and activities and accomplishments (5.5.3), on the other hand.

5.5.2. Achievements

It has been remarked that the use of a locative to express IMPERFECTIVE aspect is *never* obligatory in Dutch (Boogaart 1995, 1996); Vismans (1982: 262) calls their use "optional" and "a matter of style". A counterexample to this claim is constituted by the interpretation of achievements in narrative sequences such as (48) and (49).

(48) a. Toen ik thuiskwam, stierf opa.
when I came home died grandpa

b. Toen ik thuiskwam, lag opa te sterven (op sterven).
when I came home lay granddad to die (on die)
'When I came home, granddad was dying.'

c. Toen ik thuiskwam, was opa aan het sterven.
when I came home was granddad on the die
'When I came home, granddad was dying.'

(49) a. When I came home, granddad died.

b. When I came home, granddad was dying.

Just like its English equivalent in (49)a, the verb form *stierf* ('died') in the main clause of (48)a does not allow for the IMPERFECTIVE reading that is the only possible reading of the locative verb formations in (48)b and (48)c and the progressive in (49)b. Achievements presented by means of an unmarked past tense in narrative discourse are interpreted in the same way in Dutch and English. Thus, they are interpreted as bounded to the left and to the right at the same time; being conceptualized as non-durative, the left and right bound of an achievement coincide. As a consequence, the a-sentences only allow for an interpretation in which granddad died precisely at (or right after) the moment of my homecoming. The b- and c-sentences, however, only claim that granddad was in the process of dying at the time of reference provided by the *when*-clause (E,R); they do not say anything about the moment of his actual dying - in fact, the b-sentences leave open the possibility of a miraculous recovery.

It could be argued that when an achievement is presented by means of a progressive or a locative, this shows that the situation is not conceptualized as an achievement at all; (48)b, (48)c, and (49)b focus on the process preceding the actual dying and achievements are not supposed to have an activity phase (see Chapter 3); a similar kind of "coercion" (Moens & Steedman 1988) was assumed to have happened in (46)b and (47)b. However, it still means that the kind of situation presented in the main clause of (48) and (49), whether we call it an achievement or an accomplishment, requires the use of explicit marking to express IMPERFECTIVE aspect in Dutch as much as in English. In fact, if we say that the predicates in (48)b-c and (49)b present accomplishments, then we have to say that these accomplishments do not allow for the use of a simple form at all: in the unmarked case ((48)a and (49)a), they are unambiguously interpreted as (perfective) achievements.

Thus, to the extent that achievements can be IMPERFECTIVE, they need to be marked as such in both Dutch and English narrative discourse.[12] Obviously, one cannot regard the difference between (48)a, on the one hand, and (48)b and (48)c, on the other hand as "a matter of style".

5.5.3. Activities and accomplishments

5.5.3.1. Standard aspect choice. In the domain of activities and accomplishments, the issue of obligatoriness of IMPERFECTIVE marking in English

[12] In Dutch non-narrative discourse, an achievement may be linked to a punctual reference time provided by the surrounding discourse without being marked as such, cf. *Ik draaide het gas uit* ('I turned off the stove') and *Ik was het gas aan het uitdraaien* ('I was in the middle of turning off the stove'). See esp. 2.3.2.

and Dutch is somewhat less clear than in the domain of either states (5.5.1) or achievements (5.5.2). Native speakers' intuitions and, accordingly, linguists' analyses vary when it comes to the question whether, for instance, the unmarked past tense in the main clause of English (50)a and Dutch (50)b allows for an IMPERFECTIVE reading. (But opinions for Dutch diverge more than for English.)

(50) a. When I entered, Mary wrote a letter.
b. Toen ik binnenkwam, schreef Marie een brief.
When I entered wrote Marie a letter
'When I entered, Mary wrote/was writing a letter.'

Still, my claim is that the expression of IMPERFECTIVE aspect by means of a progressive in English is obligatory for activities and accomplishments, whereas the use of a locative in Dutch never is. Applying this to the sentences in (50), this boils down to saying that in English (50)a, the writing of the letter cannot be interpreted as holding at the time of my entrance, whereas such an interpretation is available for Dutch (50)b. Before tackling the issue for English (5.5.3.2) and Dutch (5.5.3.3) respectively, I will first explain why the matter is somewhat more fuzzy for these categories of situations than it is for either states or achievements.

At the lexical level of Aktionsart, the categories of states and achievements impose certain restrictions on the choice of grammatical aspect, whereas the categories of activities and accomplishments do not.[13] The concept of a state was represented in Chapter 3 as in (51), thus as a straight line.

(51) ———————————

My definition of PERFECTIVE PAST is repeated in (52).

(52) Perfective past presents a bounded situation occurring before the point of speech (E<S).

The definition of PERFECTIVE PAST in (52) explicitly refers to the bound of a situation but the concept of a state in (51) does not as such include reference to any bound. Thus, it is difficult to take the concept of a state as bounded to the left, or to the right, or as a completed whole. This is not to imply that states are always unbounded. If they are presented by means of a verb form that is marked

[13] An enlightening discussion of marked and unmarked aspect choice can be found in Smith (1986, 1991).

for perfective aspect, such as the *passé simple* (53)a, then they are interpreted as bounded (to the left) (see 3.4.1.2), in order to be compatible with the semantic characterization in (52). Likewise, we have seen that the Dutch present perfect, as in (53)b, presents past situations, and this includes states, as bounded to the right (4.4.3).

(53) a. Il fut malade.
he bePERF ill
'He fell ill.'

b. Hij is ziek geweest.
he is ill been
'He has been ill.'

In addition, states may be interpreted as bounded because of (pragmatic) incompatibility with situations presented in the surrounding discourse. Thus, the state of the room being dark in (54) is bounded to the left because of incompatibility with the light being on, which is the "temporal presupposition" (Molendijk 1996) of switching off the light presented in the preceding sentence (see 3.4.2).

(54) Hij deed het licht uit. Het was donker.
he did the light out it was dark
'He switched off the light. It was dark.'

However, in the absence of contextual clues as in (54) or explicit markers as in (53), states are standardly interpreted as IMPERFECTIVE and this follows from their inherent structure as represented in (51).

The concept of an achievement is at the other end of the spectrum, as it were, in the sense that these situations are conceptualized as having no duration at all. In Chapter 3, achievements were represented as in (55), thus as a transition between two different states.

(55) INITIAL STATE | RESULT STATE

As a consequence, achievements are automatically bounded; the initial and final bound of an achievement coincide. Thus, if an achievement is presented by means of an aspectually unmarked past it will automatically be interpreted as in (52), i.e. as perfective. (The perfective interpretation of the achievements in (48) and (49)

is a case in point.) Again, this does not mean that achievements can never be presented by means of imperfective verb forms. However, the achievement then gets a non-standard reading in the sense that the situation presented no longer seems to be an achievement at all. In sentences such as (48)b, (48)c and (49)b, discussed in the previous subsection, the focus is on the (durative) process preceding the actual achievement. In (56), the knocking at the door receives an iterative reading.

(56) Hij stond op de deur te kloppen.
he stood at the door to knock
'He stood knocking at the door.'

The non-standard aspect choices thus confirm rather than contradict the unmarked case: the resulting interpretation is one that fits the standard case, and, moreover, can be motivated precisely on the basis thereof.

In the conceptual make-up of activities and accomplishments, however, there is nothing that either excludes or facilitates one or the other aspectual perspective. On the one hand, like states but unlike achievements, activities and accomplishments have duration. Therefore, part of the situation can be interpreted as holding at some point of reference in the past without the whole situation necessarily being in the past. On the other hand, like achievements but unlike states, activities and accomplishments present changing and temporarily holding situations having some starting point and endpoint in time.[14] Therefore, the concepts of activity and accomplishment allow for a PERFECTIVE interpretation as much as for an IMPERFECTIVE interpretation. The standard aspect choice for the various Aktionsarten is represented in *Table 5.3*.

Table 5.3. Standard Aspect Choice for the Vendlerian Aktionsarten.

Aktionsart	States	Activity/Accomplish.	Achievement
Aspect	IMPERFECTIVE		PERFECTIVE

The unmarked aspect choice, as depicted in *Table 5.3*, explains why the issue of imperfective marking, and the obligatoriness of such marking, does not really

[14] This is more obvious for accomplishments than it is for activities. Indeed, in Chapter 3, I characterized activities as [- telic], thus having no well-defined endpoint. Still, activities are "temporally restricted" in a way that states are not. Smith (1991) captures this intuition by saying that accomplishments have a natural endpoint, while activities have an arbitrary endpoint. Activities differ from states in that the endpoint of a state is not part of the concept of a state at all.

arise with states or achievements. Simplifying somewhat, we might say that states are IMPERFECTIVE anyway and do not need to be marked as such, whereas achievements cannot be IMPERFECTIVE at all. Activities and accomplishments, however, do not at the level of Aktionsart impose restrictions on aspect choice and, therefore, these constitute the categories where the problem of (the marking of) grammatical aspect is most acutely felt. It is also the domain where cross-linguistic differences, and even differences of opinion among individual speakers, are most clearly manifested, as I will show in the following sections.

5.5.3.2. English. In English, the cases in which Aktionsart does not provide sufficient information on grammatical aspect (namely the domain of activities and accomplishments, see *Table 5.3*) are precisely the cases in which the marking of IMPERFECTIVE aspect by means of a progressive has fully grammaticalized (is obligatory), as is represented in *Table 5.4* below.

Table 5.4. Grammaticalization of the English progressive as the expression of imperfective aspect for activities and accomplishments.

AKTIONSART	*Activity/Accomplishment*	
ASPECT	IMPERFECTIVE	PERFECTIVE
Form	*Progressive*	*Simple tense*

Thus, the a-sentences of (57) and (58) are interpreted such that John starts writing the letter and starts crying after (and presumably as a reaction to) Mary's entrance. In order to convey an overlap reading, in which the event of the *when*-clause is taken as the point of reference at which the situation of the main clause held, the use of a progressive, as illustrated in the b-sentences, is obligatory.

(57) a. When Mary entered the room, John wrote a letter.
b. When Mary entered the room, John was writing a letter.
(58) a. When Mary entered the room, John cried.
b. When Mary entered the room, John was crying.

Intuitions about sentences such as (57)a and (58)a seem to be quite clear. A notable exception, however, is constituted by Binnick (1991) and, following Binnick, Vogel (1997). I agree with Binnick (1991: 296) that the marking of IMPERFECTIVE aspect is not obligatory in English. In fact, the marking of IMPERFECTIVE aspect is often not even possible in English, most notably with

(individual-level) states. However, Binnick explictly extends his claim to include events. Thus, according to Binnick, "any telic expression in the English past tense is ambiguous [...] so long as it denotes a situation having an activity phase" (p. 190). In accordance with this is the fact that he allows for an overlap reading in sentences such as (57)a (Binnick's 1991: 139 example is *she read the book when John arrived*). That Binnick's view has not led me to adjust *Table 5.3* so as to allow for IMPERFECTIVE readings of non-progressive events is motivated mainly by the fact that I have not been able to find a single native speaker who agrees with Binnick's intuition about sentences such as (57)a (cf. Depraetere 1996: 51-52, who likewise questions Binnick's view on this point).[15]

Further evidence in favour of the claim that the English simple past is incompatible with an IMPERFECTIVE interpretation of an event is provided by the sentences in (59) (cf. de Vuyst 1983; Smith 1991).

(59) Mary wrote a letter
- a. ? ...but she didn't finish it.
- b. ? ...and she finished it.
- c. ? ...and she is still writing it
- d. ? Did she finish it?

An IMPERFECTIVE reading of the first clause in (59) would present the situation of Mary writing a letter as holding at a reference time in the past; such a reading would obviously be compatible with the information in (59)a-d, which makes an issue out of whether or not the letter was finished. The incoherence of these sequences results from the fact that the simple past in the first clause presents the situation of writing a letter as bounded to the right, i.e. as PERFECTIVE.

The claim that the simple tense in English does not allow for an IMPERFECTIVE reading, at least in the case of activities and accomplishments, can be extended to include the simple present. In fact, using a simple present for events that are ongoing at the moment of speech usually results in an infelicitous utterance, as is illustrated in (60)a. (This sentence does allow for habitual and historical present readings.)

(60)
- a. ? She eats an apple.
- b. She is eating an apple.

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[15] Besides, Binnick himself is not entirely consistent at this point. At p. 207, he says that "*He painted the picture* refers to an entire accomplishment, from beginning to end".

It is, therefore, even more clear in the present tense than it is in the past tense that the use of a progressive to express IMPERFECTIVE aspect, as in (60)b, is obligatory for activities and accomplishments in English. In the past tense, not using a progressive does not result in an ungrammatical utterance because the perfective reading is available as an alternative interpretation. In the present tense, however, there is no perfective alternative available as the notions of PERFECTIVE aspect, on the one hand, and present tense, on the other hand, are incompatible: one cannot at the same time present a situation as bounded and as related to the punctual reference time that is constituted by the moment of speech. As states can be IMPERFECTIVE - in fact, they standardly are (see *Table 5.3*) - without being marked by a progressive (5.4.1), the combination of a state and a simple present tense is perfectly acceptable (*I am sick*), and the same is true of habitual readings that behave like states and other imperfectives in this way (*she eats an apple every day after lunch*).

5.5.3.3. Dutch. In Dutch, the expression of IMPERFECTIVE aspect by means of a locative verb formation is not obligatory for activities and accomplishments, as is represented in *Table 5.3* below.

Table 5.3 Grammaticalization of the Dutch locative as the expression of imperfective aspect for activities and accomplishments.

AKTIONSART	*Activity/Accomplishment*	
ASPECT	IMPERFECTIVE	PERFECTIVE
Form	*Locative*	

As for Dutch (50)b, repeated here as (61)a, I have used this example on many occasions to show that accomplishments presented by means of an unmarked past tense in Dutch allow for an IMPERFECTIVE reading, thus a reading in which Mary's writing a letter is interpreted as holding at the point of reference provided by the *when*-clause (Boogaart 1993, 1995, 1996; see also De Vuyst 1983; Bartsch 1986; Korrel 1991).

(61) a. Toen ik binnenkwam, schreef Marie een brief.
when I entered wrote Marie a letter
'When I entered, Marie wrote/was writing a letter.'

b. Toen ik binnenkwam, was Marie een brief aan het schrijven.
when I entered was Marie a letter on the write
'When I entered, Marie was writing a letter.'

c. Toen ik binnenkwam, zat Marie een brief te schrijven.
when I entered sat Marie a letter to write
'When I entered, Marie sat writing a letter.'

However, as was already discussed in Chapter 3, Verkuyl (1993: 313) does not allow for an overlap reading in such cases, even though he admits that it exists for some native speakers. Similar remarks can be found in De Vuyst (1983: 24-25) and Depraetere & Vogeleer (1998); Van Hauwe (1992) simply rejects an example very much like (61)a (*Kathy schreef een brief toen ik binnenkwam* ['Kathy wrote a letter when I came in']) as "infelicitous" on the overlap reading. There is, admittedly, some pressure to use a locative verb formation, as in (61)b and (61)c, in such cases, but this does not warrant the conclusion that the expression of IMPERFECTIVE aspect by means of a locative is obligatory for either activities or accomplishments in Dutch. I will provide five arguments in favour of the claim that it is not, and then return to the specific example in (61)a.

1. The expression of IMPERFECTIVE aspect in Dutch by means of a locative is often not possible at all for reasons that are outside the domain of grammatical aspect. In particular, the Dutch locatives cannot be used to present a situation that is conceptualized as neither [+ agentive] nor [+ gradual change] (see 5.4.2.2). In addition, the locatives can never be used in passive voice (see 5.4.2.1).

2. Activities and accomplishments that are ongoing at the moment of speech can be presented with a simple present tense in Dutch. Thus, unlike English (62)a (= (60)a), Dutch (62)b does not need a habitual reading to constitute a grammatical sentence.

(62) a. ? She eats an apple.
b. Ze eet een appel.

As discussed above, the simple present tense relates a situation to a punctual reference time, constituted by the moment of speech, and can thus be considered IMPERFECTIVE "by nature". The fact that Dutch (62)b is grammatical shows that the Dutch simple present tense is compatible with an IMPERFECTIVE interpretation and that marking by means of a locative verb formation is thus not obligatory.

3. Even if we focus the discussion on the past tense and on the cases in which the use of a locative is at least allowed, actual examples can be found in

which the unmarked past tense unambiguously receives an IMPERFECTIVE interpretation. The examples provided in (63) and (64) demonstrate this for an accomplishment (/write a book/) and an activity (/cry/), respectively.

(63) Dat vertelde hij, die jonge schrijver dus, aan iedereen: *dat hij een roman schreef*. Toen ging hij dood, die jonge Franse schrijver, maar uit niets bleek dat hij met een boek of roman bezig was. (Gerard Reve, *Het boek van violet en dood*, p. 61).
'That is what he, that young writer, told everyone: that he was writing a novel. Then he died, that young French writer, but nothing showed that he had been busy writing a book or a novel.'

(64) a. Ze kwam tot de ontdekking *dat ze zelf huilde*. (Tim Krabbé, *Het Gouden Ei*, p.44)
b. She realized *she herself was crying*. (Tim Krabbé, *The Vanishing*, p.44)

In (63), the context makes clear that an IMPERFECTIVE reading of the accomplishment in the italicized clause is required. More specifically, the second sentence refers to the same situation as the first sentence by means of an imperfective-like construction (... *dat hij met een boek of roman bezig was* [lit. that he was busy on a book or a novel]). In (64)a, the unmarked past tense *huilde* ('cried'), presenting an activity, likewise allows for an IMPERFECTIVE reading without being marked as such. This is confirmed by the official book translation, given in (64)b, that uses a progressive to convey the interpretation of (64)a.

Likewise, in contrast to the English sequences that were given in (59), the Dutch equivalents presented in (65)a-d do not provide information that is semantically incompatible with the first clause.

(65)

	Mary	schreef	een brief	(toen	ik	haar	zag)				
	Mary	wrote	a letter	(when	I	her	saw)				
a.	...	maar	ze	heeft	hem	nooit	afgemaakt.				
		but	she	has	him	never	finished				
b.	...	en	ze	heeft	hem	ook	afgemaakt.				
		and	she	has	him	also	finished.				
c.	...	en	misschien		is	ze	er	nog steeds	mee	bezig.	
		and	perhaps		is	she	it	still	with	busy	
d.		En...	heeft	ze	hem	nog	afgemaakt?				
		and	has	she	him	still	finished				

This can only be explained by assuming that the unmarked past tense in (65) allows for an IMPERFECTIVE reading and thus does not assert that the situation of writing a letter is bounded. (In fact, because the continuations in (65)a-d all contain a present tense and are concerned with the right bound of writing a letter, they suggest a non-narrative context and the Dutch unmarked past is typically interpreted as IMPERFECTIVE in such a context; see especially section 6.3.4.) If such a reading were not allowed by the unmarked past tense, the Dutch sequences in (65)a-d would be as incoherent as the English ones in (59).[16]

4. The unmarked past tense in the main clause of sentences such as (61)a can only be interpreted as [- perfective] if the adverb *net* ('just', 'at this/that very moment') is added, as in (66).

(66) Toen Mary binnenkwam, schreef John net een brief.
when Mary entered wrote John just a letter
'When Mary entered, John happened to be writing a letter.'

The presence of *net* (or, somewhat more formally, *juist* 'just') rules out the sequence reading, in which John starts writing/crying *after* and presumably *because of* Mary's entrance, by stressing the co-incidence (literally as well as figuratively speaking) of the two situations. As a result, the unmarked past tense in the main clause receives an IMPERFECTIVE reading; the situation presented in the main clause happens to be holding at the reference time provided by the *when*-clause. The fact that this does not make the use of a locative verb formation obligatory in (66) shows, once again, that the unmarked past tense in Dutch is compatible with an IMPERFECTIVE reading even in the case of activities and accomplishments. In fact, even people who find (61)a impossible on the overlap reading often have no problem with accepting (66).

5. A case highly similar to (62) and (66) is constituted by sentences containing an adverb that refers to a definite point in time, such as (67)a.

(67) a. Om drie uur las ze een boek.
at three hours read she a book
b. At three o'clock she read a book.

Whereas in (62) and (66) a punctual reference time was provided by the point of speech and by the *when*-clause respectively, in (67) it is given within the clause.

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[16] However, according to the people who find (61)a impossible on the overlap reading, the sequences in (65) are in fact incoherent.

Now, just as the situations presented by means of an unmarked tense in (62) and (66) can be interpreted as ongoing as the point of speech and at the time of the *when*-clause, the accomplishment /read a book/ in (67)a can be interpreted as holding at the moment denoted by *om drie uur* ('at three o'clock'). The English simple past in (67)b does not allow for this clearly IMPERFECTIVE reading; instead, if it can be interpreted at all, the punctual adverb is interpreted as denoting the first moment (the left bound) of reading a book.

The cases in (62)-(66) all provide evidence in favour of the claim that the unmarked past tense in Dutch allows for an IMPERFECTIVE reading of activities and accomplishments. In some cases, the marking of IMPERFECTIVE aspect by means of a locative verb formation is not even possible in Dutch, and when it is possible, it is not obligatory. Still, all this does not exclude the possibility that the use of a locative is obligatory in the highly specific case given in (61)a, repeated here as (68).

(68) Toen ik binnenkwam, schreef Marie een brief.
When I entered wrote Marie a letter
'When I entered, Mary wrote/was writing a letter.'

In fact, there are four factors favouring the use of a locative verb formation to convey the overlap reading of (68):

1. The main clause presents an accomplishment. As discussed in 5.5.3.1, the Standard Aspect Choice does not impose restrictions on grammatical aspect for accomplishments and if one were to feel the need to disambiguate for grammatical aspect it would be for this category of situations.[17]

2. The situation of writing a letter in (68) is conceptualized as non-habitual, agentive and establishing change in time. In addition, it is presented in an active clause. The situational concept is, therefore, suited *par excellence* for the use of a locative verb formation (see 5.4.2).

3. The *when*-clause presents an achievement, the time of which functions as a punctual reference time for the durative situation of the main clause. This might well be considered the prototype of a context in which languages use locative/progressive marking (cf. Jespersen's 1931 *time-frame*, and Pollak's 1960 *Inzidenzschema*; see also Comrie 1976: 3).

4. Without explicit context, our common sense does not impose too many restrictions on the relationship between such a situation as someone coming in and

[17] The tendency to use explicit marking seems to be even stronger for activities than for accomplishments, see *?Toen ik binnenkwam, schreef Marie* ('When I entered, Mary wrote').

someone else writing a letter, so that one needs more context or, indeed, the marking of grammatical aspect to determine the temporal ordering between such types of situations (see 3.4.2 on pragmatic incompatibility).

To sum up, if the marking of IMPERFECTIVE aspect by means of a locative were ever to become obligatory in Dutch, the type of case exemplified in (68) is, in many respects, the type of case where we might expect such a process of grammaticalization to be first completed. Indeed, for some native speakers, the use of a locative is (already) obligatory in sequences such as (68). Still, many factors work together to establish this in this highly specific case, and it in no way warrants the conclusion that IMPERFECTIVE marking is, or is becoming, obligatory for activities and accomplishments in Dutch.

5.6. Conclusion: IMPERFECTIVE aspect and the progressive/locatives

Combining the findings on the grammaticalization of the progressive and the locatives for states and events results in *Table 5.1*, repeated below.

Table 5.1. The expression of imperfective aspect in Dutch and English.

ASPECT	IMPERFECTIVE		
AKTIONSART	Activity/Accomplishment	State	
		stage level	ind. level
English	*Progressive*		
Dutch	*Locative*		

In *Table 5.1*, the English progressive covers the entire domain of IMPERFECTIVE activities and accomplishments, which means that its use is obligatory to express IMPERFECTIVE aspect for these Aktionsarten. In addition, the progressive covers part of the domain of IMPERFECTIVE stage-level states (temporary properties). This captures the fact that the use of a progressive to express IMPERFECTIVE aspect for this category of situations is possible, but not obligatory. The Dutch locatives cover only part of the domain of IMPERFECTIVE activities and accomplishments; their use is never obligatory. In addition, the part uncovered by the Dutch locatives consists of all cases in which using a locative to express IMPERFECTIVE

aspect is not possible at all because of the restrictions on their use discussed in 5.4.2.

In the following chapter, I will combine the findings on the grammaticalization of the present perfect from Chapter 4 with the findings on the grammaticalization of the progressive/locative from this chapter. This will allow me to determine rather precisely the aspectual domain left to be covered by the unmarked past tense in English and in Dutch. After doing so, I will show to what extent the analysis can explain the contrastive data on interclausal temporal ordering presented in Chapter 1.

6 The unmarked past

6.1.Introduction

In Part I of this thesis, it was argued that, in the absence of explicit indicators such as temporal adverbials, the interpretation of interclausal temporal relations is constrained by aspect (and pragmatic incompatibility, see 3.4), rather than by either tense (Chapter 2) or Aktionsart (3.2.3). Part II of this thesis is dedicated to the question how the distinction between PERFECTIVE and IMPERFECTIVE aspect has grammaticalized in English and Dutch. In the preceding two chapters, I answered the question to what extent these aspectual notions are expressed by the present perfect and by the progressive/locatives, respectively. However, the data on temporal ordering to be explained in this thesis, first presented in 1.2, mainly concerned clauses containing simple past tense forms. In this chapter, I will address the aspectual interpretation of the simple tense in Dutch and in English; I will start out by showing why the issue is a complex one, and one that has not been handled satisfactorily in the literature to date (6.2). In section 6.3, I will show that the findings of the previous two chapters, together with the principle of "grammaticalization of zero" (6.3.1), predict the aspectual interpretation of the unmarked tense.

In 6.4, I will provide a solution to the contrastive puzzles in the domain of interclausal temporal ordering, first presented in Chapter 1 (1.2.2). The differences and similarities between the Dutch and the English simple past can be summarized as in I-V below.[1]

Differences

I. Event clauses in English are incompatible with inclusion readings, whereas event clauses in Dutch are not.
II. Events in Dutch complement clauses do not allow for precedence readings, whereas this the only possible reading of such events in English.
III. Consecutive main clauses presenting events in Dutch lack reverse-order readings, which English allows for.

[1] I will refrain from giving examples here; they were given in Chapter 1, section 1.2.2, and they will all be repeated in the course of this chapter.

Similarities

IV. Both the English and the Dutch past tense is compatible with an iconic interpretation of events in narrative discourse.
V. Stative clauses containing a past tense allow for the same interpretations in Dutch and English irrespective of discourse type or syntactic environment.

The solution to most of these puzzles will automatically follow from the analysis given in 6.3. Specific problems constituted by (a) the interpretation of complement clauses (sequence of tenses), and (b) reverse-order sequences will be discussed in detail in sections 6.4 and 6.5, respectively.

6.2. The problem of invisible aspect

To explain the range of data presented in I-V in 6.1, it is neither attractive nor necessary to assume that, for instance, the past tense in English is semantically [+ perfective] in event-clauses and [- perfective] in state-clauses. Likewise, it is not likely that the Dutch past tense will have another semantic value in narrative discourse than it does in non-narrative discourse. In fact, both suggestions boil down to giving up on a unified analysis for the meaning of the past tense in Dutch and in English and this is a move that I do not want to make unless it is absolutely necessary. And yet I will argue that a unified account of the data can be given in terms of PERFECTIVE and IMPERFECTIVE aspect.

The aspectual nature of the simple past tenses is one of the more complex issues in the domain of tense and aspect. The complexity of the issue arises from a combination of two things. On the one hand, the simple past tense in Dutch and in English is compatible with both PERFECTIVE and IMPERFECTIVE readings. Thus, we have to conclude that these tenses are aspectually neutral or unmarked. In fact, this observation has often led to the conclusion that it does not make sense at all to talk about the categories of PERFECTIVE and IMPERFECTIVE aspect in connection with the simple past tense in English and in Dutch. From Van Wijk (1928) to Czochralski (1994) this has often been argued for Dutch; for English, this opinion is phrased most emphatically in the following quotation from Zandvoort (1962):

> The attempt to transfer the category of "aspect" from Slavonic to Germanic, and from there to Modern English grammar, strikes one as an instance of misdirected ingenuity. [...] Whichever way we look at it, the conclusion seems inescapable that the question asked in the title of this paper [i.e. "Is aspect an English verbal category?" RB] should be answered in the negative. (1962: 19-20)

On the other hand, there are many cases in which the unmarked tense is unambiguously either PERFECTIVE or IMPERFECTIVE and, more interestingly, these cases are not always the same in Dutch and English. In intuitive terms, the English simple past is "more", or "more often", PERFECTIVE than its Dutch counterpart. In fact, Brinton (1988) and Smith (1991) have no problem with stating that the English simple past expresses PERFECTIVE aspect (arguments against this proposal will be provided in section 6.3.3). On the other hand, one can find basically correct but still rather unsatisfactory remarks such as the following one from Bache (1985: 258): "the simple form is *more or less* aspectually neutral in the present tense. In the past tense, however, it *often* assumes a clearly *perfective-like* quality" [all italics mine]. In a similar vein, Vogel (1997: 80) claims that "though the English SP is *in theory* aspectually polyvalent, *in practice* it *generally* conveys perfective aspect" [all italics mine].

If one starts from the formal category of the past tense, in either English or Dutch, and then tries to determine the meaning of that form under the assumption that there is a one-to-one relation between form and meaning, as, for instance, Zandvoort did (see the quotation above), then one will, admittedly, not end up with either PERFECTIVE PAST or IMPERFECTIVE PAST as *the* meaning of these forms. Indeed, given the findings presented in the previous subsection such a conclusion would be false. In this thesis, I take the opposite route of investigating to what extent perfective and imperfective aspect, taken as a universal semantic distinction, are linguistically encoded in English and Dutch. Even though these categories might not be *grammatical* categories, in a very strict sense of that term, of English and Dutch, I feel this choice is justified for the following reason.[2]

If one does try to come up with one single meaning for a given form, then the resulting description must be general enough to capture all the different uses of this form and the semantic characterization will therefore have to be fairly abstract. In some cases, this will make cross-linguistic comparison extremely

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[2] See, for instance, Barentsen (1985: 4-5) for the distinction between aspect as a grammatical category and aspect as a functional-semantic category.

difficult. In other cases, the impression will be that two categories, taken from different languages, mean basically the same thing as the description is general enough to capture both categories (cf. the discussion of the present perfect in Chapter 4, esp. section 4.3.1). This impression, however, is not necessarily accurate, or, in any case, it may not be precise enough to permit an understanding of the distributional properties of a given category.

Let us assume, for instance, that the past tense in both English and Dutch means "past" (with respect to either the moment of utterance or a shifted deictic centre, see Chapter 2), and that the only thing we can say about aspect is that both past tenses allow perfective and imperfective readings. This claim is, in fact, basically correct, but it does not offer any explanation for the differences between the two tenses noted in the previous subsection. For instance, if these tenses allow both readings, then why does the precedence reading of English (1)a not constitute *at least one* of the readings of Dutch (1)b - and vice versa?

(1) a. He said that he read a book on semantics.
b. Hij zei dat hij een boek over semantiek las.
he said that he a book on semantics read
'He said that he was reading a book on semantics.'

Obviously, it will not suffice to say that the aspectual ambiguity of the past tense in both English and Dutch gets resolved on the basis of lexical content (Aktionsart) and/or context; the English and Dutch examples given in (1)a and (1)b are identical in these respects, and yet their interpretation differs. Thus, though aspect may not be visible here, it is nonetheless one of the things that we need if we are to explain the differences observed (cf. the discussion of non-overt aspect in Vogel 1997: 94-96).[3] In the following section, I will discuss the notion of "grammaticalization of zero" (Bybee 1994 and, in a different terminology, Bickel 1996) as a way to reconcile the aspectually neutral character of the past tense in Dutch and English with the fact that it systematically gets a specific aspectual interpretation in certain contexts (i.e. for a specific Aktionsart or in a specific discourse type); the fact that this interpretation often, but not always, differs for Dutch and English will follow from the analysis as well.

[3] I am not claiming that there is no visible *aspectuality* in Dutch and English clauses containing a simple past tense. My claim is restricted to aspect. All clauses do, of course, express information on Aktionsart (cf. Chapter 3).

6.3. Aspectual interpretation of the aspectually unmarked past

6.3.1. Grammaticalization of zero

Bybee (1994: 235) notes that "an interesting consequence of the grammaticization process is the development of meaning in zero-marked forms". The mechanism that Bybee is describing, which she calls "grammaticization of zero", is relevant for this chapter, the purpose of which is precisely to explain the fact that zero" forms systematically get a certain interpretation as the result of the availability of marked forms within the language.[4]

Taking a diachronic perspective, Bybee argues that once the use of a marked form to express a certain meaning becomes "frequent enough", *not* using the available marked form has significance in itself. In earlier stages of the grammaticalization process, Bybee treats this as a pragmatic implicature following, in particular, from Grice's MAXIM OF QUANTITY (*make your contribution as informative as is required, but not more informative*); Bickel (1996) independently applies this principle to the aspectual interpretation of unmarked forms. Such implicatures, in Bybee's view, later become conventionalized, i.e. the inference becomes automatic and eventually part of the *meaning* of the form; this principle of semantic change has been described by, among others, Dahl (1985), García & van Putte (1989) and Traugott & König (1991). Applying it to the simple present tense in English, Bybee describes the mechanism as follows:

> when a developing gram such as the Progressive becomes frequent enough so that it is reasonable to infer that if a speaker intended the progressive sense, s/he would have used the progressive, the non-progressive meanings of Simple Present come to be the only possible meanings. (Bybee 1994: 242).

As in the preceding chapters, I will focus on the observable synchronic facts of English and Dutch. For my purpose, the principle of "grammaticalization of zero" is useful to describe the effect of the obligatory use of a marked form on the *interpretation* of the unmarked form. I do not believe, however, that the principle can predict the aspectual *meaning* of the simple tenses in English and Dutch. In fact, I would like to maintain the claim that, *semantically*, the simple tenses of

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[4] I use the term *grammaticalization* instead of Bybee's *grammaticization* because I have been using this term throughout this thesis and it is more commonly used than Bybee's term.

Dutch and English are aspectually neutral.[5] To clarify this issue, I will, in the following subsection, repeat the main points of the preceding chapters and show how the grammaticalization of the perfect (Chapter 4) and the progressive (Chapter 5) predicts the different range of the unmarked tense in English and in Dutch, without fully determining their aspectual meaning. After that, I will consider the contribution of Aktionsart (6.3.3) and discourse type (6.3.4) to the aspectual interpretation of the unmarked tense. As long as these variables are taken into account, all contrastive data presented in 1.2.2 (and summarized as I-V in 6.1) can be explained.

6.3.2. Aspectual domain left to be covered by the simple tenses

In Chapter 4, I investigated the question what part of the semantic domain of PERFECTIVE PAST is covered by the formal category present perfect in English and in Dutch. I argued that the crucial difference between the semantic notions PRESENT PERFECT and PERFECTIVE PAST is constituted by the fact that PRESENT PERFECT refers to two situations rather than one: in addition to referring to a situation in the past, it refers to a situation, more specifically a state, holding at the present moment. The latter situation, presented explicitly by means of the finite verb form of the English and the Dutch present perfect, is aspectually IMPERFECTIVE: this is the Standard Aspect Choice (5.5.3.1) for states and the use of a progressive or a locative to mark its aspectual value is not allowed for *have*, nor for Dutch *hebben* and *zijn*, when it is used as an auxiliary of the perfect (**he is having read the book*) (5.4.1). Recall that, in my analyis, all instances of IMPERFECTIVE need a reference time for the situation to be anchored to; in the case of the present tense, this reference time is constituted by the point of speech (S). This results in (2)a as the semantic representation for PRESENT PERFECT.

(2) a. PRESENT PERFECT: E1 < E2,R,S
b. PERFECTIVE PAST: E < S

The combination of PERFECTIVE aspect and PAST tense results in a more simple representation, as given in (2)b: the situation is presented as a bounded situation that happened in the past (before S). Depending on lexical content (Aktionsart) and discourse type (narrative versus non-narrative), a PERFECTIVE PAST may focus either on the left bound (the starting point) or on the right bound (the end point)

[5] In this respect, my approach is closer to Bickel (1996) than to Bybee (1994); in addition, Bickel also adopts a strictly synchronic viewpoint.

of a situation (see 3.4.1.2). At the level of semantics, there is no requirement of anaphoric linking to either the moment of utterance (as in the case of PRESENT PERFECT) or a moment in the past (as in the case of IMPERFECTIVE PAST).[6]

I argued in Chapter 4 that the present perfect in English covers (the greater part of) the semantic domain of PRESENT PERFECT; it cannot be used as a PERFECTIVE PAST tense. The Dutch present perfect, on the other hand, has uses that come close to PERFECTIVE PAST. More specifically, the Dutch present perfect can function as such in non-narrative discourse (4.4.3). In this discourse mode, it is a sufficient condition for the use of the Dutch present perfect that the event is (a) viewed perfectively, and (b) situated in the past. In English, these two conditions are not sufficient for the use of the present perfect in non-narrative discourse. As argued in Chapter 4, the additional restrictions on the use of the English present perfect can all be related to the fact that this category is representative of an earlier stage in the PERFECT-to-PERFECTIVE grammaticalization chain. More specifically, the English present perfect is closer to its RESULTATIVE source construction (4.3).

The conclusions of Chapter 4 can be visualized as in *Table 6.1* below.

Table 6.1. Grammaticalization of the English and the Dutch present perfect.

PRESENT PERFECT (E1 < E2,R,S)	PERFECTIVE PAST (E<S)
English	
Dutch	

In Chapter 5, I discussed the English progressive and the Dutch locatives as a restricted realization of IMPERFECTIVE. As for the semantics of IMPERFECTIVE aspect, I argued in favour of the anaphoric approach (cf. especially section 2.3.4 and 5.3): for an adequate use and interpretation of an IMPERFECTIVE, the situation has to be linked to an independently provided reference time; for IMPERFECTIVE PAST this resulted in (3).

(3) IMPERFECTIVE PAST: E,R < S

[6] Both the definite reading of the (English) simple past tense in non-narrative discourse (*I didn't turn off the stove*), and the coherence of narrative discourse, which is often ascribed to the alleged anaphoric nature of tense, were argued to be a matter of pragmatics in Chapter 2.

The English progressive and the Dutch locatives cover only part of the semantic domain of IMPERFECTIVE aspect. More specifically, the progressive cannot be used to present an individual-level predicate (5.4.1). It can be used with all stage-level predicates, but is obligatorily used to express IMPERFECTIVE aspect only with achievements, accomplishments and activities (5.5). The restrictions on the use of the Dutch locatives are more severe. In particular, they cannot be used to present states (even if they are of the stage-level kind), they cannot be used for situational concepts that are neither [+ agentive] nor [+ gradual change], and they cannot be used in the passive voice (5.4).

The different degree of grammaticalization of the English progressive and the Dutch locatives is represented in *Table 6.2* below.

Table 6.2. Grammaticalization of the English progressive and the Dutch locatives.

IMPERFECTIVE PAST (E,R < S)	
English	
Dutch	

What does this mean for the unmarked past tense? The past tense in English and in Dutch allows for both PERFECTIVE and IMPERFECTIVE interpretations, but in both aspectual domains there are alternative means of expression available to the language user that unambiguously express one or the other aspect. These alternatives have grammaticalized to different extents in Dutch and in English. Combining the findings on the perfect (*Table 6.1*) and the progressive/locative (*Table 6.2*) results in *Table 6.3*, in which the grey area represents the aspectual domain left to be covered by the simple past tense.

Table 6.3. Aspectual domain left to be covered by the unmarked past tense in English and Dutch.

Tense	PAST		
Aspect	PERFECTIVE	IMPERFECTIVE	
Eng.	*simple past*	*progressive*	
Dutch	*perfect*	*simple past*	*locative*

Table 6.3 is completely in line with the intuitions and observations on the simple past tense in English and in Dutch presented in 6.1 and 6.2. More specifically, it visualizes that:

I. The simple past tense in English and in Dutch allows for both PERFECTIVE and IMPERFECTIVE readings.
II. There is a significant amount of overlap between the two tenses (explaining the similarities from 6.1).
III. There is a domain covered by the English simple past but not by its Dutch counterpart, and vice versa (explaining the differences from 6.1).
IV. The English simple past is "more PERFECTIVE": it covers more of the PERFECTIVE domain and less of the IMPERFECTIVE domain than the Dutch simple past does.

As it stands, however, *Table 6.3* is not very informative. Most importantly, it does not enable us to answer the question when the simple past is interpreted as either PERFECTIVE or IMPERFECTIVE, and in exactly which cases the English and the Dutch simple past differ. The reason for this is the following. From a synchronic, semantic perspective, the key issue is obligatoriness rather than "availability" or "high frequency" of an alternative means of expression. It is not until the use of a marked form to express a certain meaning is obligatory, in all contexts and irrespective of lexical content or discourse type, that we can draw conclusions about the semantics of the unmarked form. At the level of generalization depicted in *Tables 6.1-6.3* above, explicit marking of PERFECTIVE or IMPERFECTIVE aspect is never obligatory and, therefore, the semantic domain covered by the unmarked form spans (part of) both aspects in all tables discussed thus far.

Still, the term "grammaticalization of zero" is an elegant way of formulating why the unmarked forms systematically get one or the other interpretation relative to a certain Aktionsart and/or a certain discourse type. The principal aim of Chapter 4 and Chapter 5 was to be more specific about the parts of PERFECTIVE and IMPERFECTIVE aspect covered by the categories of perfect and progressive/locative, respectively. It will be clear that the results from these chapters will also be useful in delimiting more precisely the semantic domain covered by the unmarked tense. More specifically, in Chapters 4 and 5, I argued that the variables of (narrative versus non-narrative) discourse-type and Aktionsart were important for the understanding of the grammaticalization of the perfect and the progressive. It is not until we have taken into account the contribution of these variables that the principle of "grammaticalization of zero" will show its usefulness for the present discussion. If the expression of a certain meaning by means of a marked form is obligatory *in a certain context* then this at least has

consequences for the interpretation of the unmarked form *when used in that context*.

Before turning to the role of Aktionsart and discourse type, some modesty is required as to the type of questions the analysis can answer. In particular, the crucial role of obligatoriness rather than availability casts doubt on the explanatory power of Bybee's principle and related approaches (such as Bickel 1996), including my own. More specifically, the ultimate question, of course, is *why* the use of a given marked form is either obligatory or not. The pragmatic principle that if a marked form can be used, the unmarked form implies the opposite reading does not work as long as the use of the marked form is not obligatory; and once the obligatoriness of explicit marking has been established, no additional principle is needed to explain why not using it also means something. Indeed, this is precisely what it means for a marking to be obligatory. For instance, Dutch, like English, has forms to explicitly express IMPERFECTIVE aspect; these are the locatives treated in Chapter 5. The pragmatic reasoning that is invoked to explain the interpretation of the unmarked form in English may, therefore, likewise be applied to Dutch. Now, grammaticalization of zero may explain the pressure to use a locative in some well-defined contexts (see 5.5.3.3). Also, diachronically, it may explain why *possible* use of a locative form may eventually turn into *obligatory* use, though there is no way to predict that it ever will. However, as (long as) the use of a locative to express IMPERFECTIVE aspect is not obligatory in Dutch, we cannot use the principle of "grammaticalization of zero" to determine any aspect of the interpretation (let alone the meaning) of the unmarked form in Dutch. Even though questions such as *why* the use of progressive marking is obligatory for events in English, but not in Dutch, are far from trivial, they will not be answered in this study.

6.3.3. The role of Aktionsart

One of the puzzles presented in 6.1 concerns the fact that whereas the interpretation of event clauses containing a simple past tense often, but not always, differs for Dutch and English, the interpretation of state clauses containing a simple past tense is identical in both languages. This can be explained if we combine the findings on the grammaticalization of the English progressive and the Dutch locatives, discussed in Chapter 5, with the principle of grammaticalization of zero introduced above.

In Chapter 5, I argued that the restrictions on the use of the progressive and the locatives to express IMPERFECTIVE aspect relate, among other things, to the category of Aktionsart, thus to the distinction between events and states. *Table 6.4* shows the grammaticalization of progressive and locatives for the Aktionsart

category of events (activities and accomplishments); the domain left to be covered by the unmarked tense in English and in Dutch is again represented as the grey area.[7]

Table 6.4. Aspectual domain left to be covered by the unmarked tense in event clauses.

AKTIONSART	*activity/accomplishment*	
TENSE	PAST	
ASPECT	PERFECTIVE	IMPERFECTIVE
English	*simple past*	*progressive*
Dutch	*simple past*	*locative*

As argued in Chapter 5 and visualized in *Table 6.4*, the expression of IMPERFECTIVE aspect by means of the progressive has fully grammaticalized for events in English. In other words, the progressive is the only means available for expressing IMPERFECTIVE aspect for this Aktionsart category. Now, obligatoriness is a necessary condition for the application of grammaticalization of zero, viewed from a synchronic perspective. The principle may not allow us to make a general statement about the meaning of the simple tense, as demonstrated in the previous section, but as long as the claim is restricted to events, we can conclude that the zero form in English systematically receives a [+ perfective] interpretation because the expression of IMPERFECTIVE aspect by means of a marked form has fully grammaticalized. The fact that this claim can only be made for a restricted set of situational concepts, and is thus partly determined by lexical content, means that it is not possible to conclude that the zero-form as such is a marker of [+ perfective] aspect (cf. Bickel 1996). The latter claim has recently been made by, for instance, Brinton (1988), Smith (1991), Giorgio & Pianesi (1995) and Bache (1995), who all treat PERFECTIVITY as a semantic feature of the English simple tenses. The crucial argument against this claim is, of course, constituted by the behaviour of states.

For states, the expression of IMPERFECTIVE aspect by means of a either a progressive in English or a locative in Dutch is not (usually) allowed (see 5.4.1); it has not fully grammaticalized for this Aktionsart category. As a result, the

[7] See Chapter 5, esp. sections 5.5.2 and 5.5.3.1, for the combination of achievements and progressive/imperfective marking.

simple form can, in principle, be either PERFECTIVE or IMPERFECTIVE when it presents a state, and this is true in both English and Dutch, see *Table 6.5*.

Table 6.5. Aspectual domain left to be covered by the unmarked tense in state clauses.

AKTIONSART	*state*	
TENSE	PAST	
ASPECT	PERFECTIVE	IMPERFECTIVE
English	*simple past*	*progressive*
Dutch	*simple past*	

It will be clear that the situation sketched in *Table 6.5* constitutes a problem for those who want to defend the claim that the English simple past is semantically [+ perfective]. In fact, the behaviour of states is even more detrimental to this hypothesis than is suggested by the table. Not only do stative clauses containing a simple tense *allow for* an IMPERFECTIVE reading, this is in fact the unmarked reading for this Aktionsart category (cf. the Standard Aspect Choice introduced in 5.5.3.1).

As the idea that the English simple tenses are semantically [+ perfective] is becoming quite popular in contemporary linguistics (see references cited above), it seems useful to expand a little on the question why the behaviour of states makes this position untenable. Of the authors mentioned, Brinton (1988) and Smith (1991) are the most consistent in their view that the simple tenses of English are perfective: they simply extend their claim to include states. If one regards PERFECTIVITY as a semantic feature of the simple tenses one does, of course, not have another option. I will briefly discuss the way in which Brinton and Smith deal with the category of states to make clear that stative clauses in English are not necessarily perfective and that perfectivity can thus not be a semantic property of the English simple tense.

Brinton (1988)

Brinton feels that the category of *states* does not constitute a problem at all for the claim that the simple tense is [+ perfective]. In her view, *states* in English are "by necessity viewed perfectively" (1988: 16), which, according to her definition of PERFECTIVE aspect, means that they are viewed as "a complete whole" and thus

as "ended or terminated" (1988: 43). Brinton's claim about states is at odds with the Standard Aspect Choice for states (see 5.5.3.1) and, accordingly, with the behaviour of states in languages that do possess marked forms to express PERFECTIVE and IMPERFECTIVE aspect. In such languages, states are normally, and often even exclusively, presented by means of *IM*PERFECTIVE verb forms. In Russian and Chinese, for instance, the combination of a stative Aktionsart and PERFECTIVE aspect often results in an ungrammatical utterance (Smith 1991: 109). In other languages, the combination may give rise to an inchoative interpretation, particularly in narrative discourse (see 3.4.1.2); this is attested for most Romance languages. Now, the claim that the simple past tense of English is PERFECTIVE suggests that French (4)a, containing an unambiguously [+ perfective] *passé simple*, is semantically equivalent to English (5)b, containing a simple past tense.

(4) a. Il fut malade.
b. Il était malade.
(5) a. He fell ill.
b. He was ill.

However, English (5)b will normally be rendered in French as (4)b, containing an unambiguously [- perfective] *imparfait*. The inchoative reading of French (4)a is more accurately translated into English by means of, for instance, (5)b. Saying that both French (4)a and English (5)b are [+ perfective], as Brinton and Smith would, makes it difficult to explain why the interpretation of these utterances differs so radically. Even though English (5)b might allow for an inchoative and therefore arguably PERFECTIVE interpretation in certain contexts, it is equally compatible with an IMPERFECTIVE reading.

In addition to the argument based on cross-linguistic comparison, treating the simple past tense as [+ perfective] - irrespective of Aktionsart - is not very useful within a language-specific analysis of English either. Most importantly, Brinton's claim that states presented by means of a simple past tense in English are "by neccessity" viewed as "ended or terminated" is false, and, in fact, this constitutes one of the crucial differences between states and events presented by means of an unmarked past tense in English. The simple past tense typically presents states as holding at a moment in the past - thus, in my view, as IMPERFECTIVE rather than PERFECTIVE - and does not claim anything about whether or not the state is still holding at the present moment. In any case, stative clauses containing a simple past tense do not exclude the latter possibility, as is demonstrated in (6)a.

(6) a. John was sick last week and, for all I know, he is still sick today.
b. ? John wrote a letter yesterday and, for all I know, he is still writing it now.

Treating the simple past tense in the first clause of both (6)a, presenting a state, and (6)b, presenting an event, as perfective makes it puzzling, first, that the continuation in (6)a is allowed at all and, second, that in this respect (6)a is very different from (6)b, which does *not* allow for a similar continuation.

Smith (1991)

Contrary to Brinton, Smith (1991) is well aware of the availability of what she calls "open interpretations" for states in English, such as the one demonstrated in (6)a. To be able to maintain the claim that, nonetheless, the simple past is [+ perfective], Smith adjusts her definition of perfectivity. In particular, she gives up "closedness" as part of the meaning of perfective aspect, at least for English. Smith claims that it is a specific property of "the perfective viewpoint" in English that it "presents in its entirety the temporal schema associated with each situation type" (1991: 220). In the case of events, this means that the perfective viewpoint includes reference to the endpoint (resulting in the "closed" interpretation of, for instance, (6)b); in the case of states, it does not, because the temporal schema associated with states does not include such an endpoint.

Redefining the semantics of PERFECTIVE aspect like this admittedly allows one to regard the simple tense as PERFECTIVE, even in clauses that present states. However, the generalization is arrived at by depriving the notion of PERFECTIVE aspect of most of its semantic content, at least for English; it is hard to see what it means for the simple tense to be "perfective" if perfectivity does not necessarily involve reference to any temporal boundary. Also, the fact remains that English "perfective" verb forms presenting states usually have to be rendered by IMPERFECTIVE verb forms in languages that explicitly mark aspect for states (cf. above).

A final argument against the claim that the simple past is [+ perfective] in stative clauses, and one that is a problem for Smith's analysis as well as Brinton's, is provided by an analogy with the progressive. Consider the sentences in (7).

(7) a. John said that Mary was sick.
b. John said that Mary was reading a book.
c. John said that Mary read a book.

The temporal interpretation of (7)a and (7)b is similar. Both allow for two readings, traditionally referred to as the "simultaneous" and the "backshifted" reading. In this respect, they differ from (7)c, which only allows for the back-shifted reading. In Chapter 2, I suggested that a unified explanation for these data can be given in terms of aspect: the simple past tense in the embedded clause of both (7)a and (7)b is IMPERFECTIVE and thus requires simultaneity with some reference time. This reference time may be provided by the matrix clause, resulting in the simultaneous reading, or it may be a time preceding the time of the matrix clause provided by, or inferrable from, the surrounding discourse or situation, resulting in the backshifted reading. It should be noted that the embedded tenses in both (7)a and (7)b are, indeed, rendered by an imperfective verb form in languages that explicitly mark IMPERFECTIVE aspect for states. The embedded simple past tense in (7)c is [+ perfective], which rules out the simultaneous reading; the forward shifted reading is ruled out by pragmatic reasoning (see 2.2.2.4), which leaves the backshifted reading as the only possible reading of (7)c. As Brinton and Smith would call the embedded simple past tense in both (7)a and (7)c [+ perfective], and the embedded progressive in (7)b [- perfective], they cannot provide an explanation for the fact that the temporal interpretation of (7)a is like that of (7)b, rather than like that of (7)c. Thus, treating the simple tense as [+ perfective] (also when it presents a state) and the progressive as [- perfective] cannot account for the fact that the aspectual interpretation of states equals that of a progressive.

To sum up, regarding the English simple tenses as [+ perfective] means missing important generalizations both within a language-specific analysis of English (see (6) and (7)) and in cross-linguistic analysis (see (4) and (5)). The alternative claim that the simple tenses are aspectually neutral is basically correct, but it cannot be the whole story if one wants to explain when and why the simple tense is either PERFECTIVE or IMPERFECTIVE. For that purpose, it is necessary to take into account Aktionsart. More specifically, the explicit marking of IMPERFECTIVE aspect has grammaticalized to different extents for different Aktionsarten and this has systematic consequences for the interpretation of the unmarked tense. As a consequence of grammaticalization of zero, the simple tense is [+ perfective] when it presents an event. When it presents a state, the simple past can be either PERFECTIVE or IMPERFECTIVE, but, following the Standard Aspect Choice, it will typically be interpreted as imperfective. The latter is confirmed by data from languages that do mark IMPERFECTIVE aspect for states. As for Dutch, the marking of IMPERFECTIVE aspect is not possible for states and not obligatory for events. This explains why the aspectual interpretation of the unmarked tense in English and Dutch is identical for states, whereas the

interpretation sometimes, but not always, differs for events (see *Tables 6.4* and *6.5*).

6.3.4. The role of discourse type

Another contrastive puzzle concerns the fact that the Dutch unmarked past tense is felt to be more, or more often, PERFECTIVE when it is used in narrative discourse than when it is used in non-narrative discourse. For instance, it was noted in Chapter 2 that Dutch (8) is not adequate as a Dutch equivalent of English (9)a (adapted from Partee 1973; 1984) when used in non-narrative discourse. Rather, the sort of contextual anchoring required for the use and interpretation of Dutch (8) in non-narrative discourse is equivalent to that of English (9)b, containing an explicitly IMPERFECTIVE progressive.

(8) Ik draaide het gas uit.
I turned the gas out

(9) a. I turned off the stove.
b. I was turning off the stove.

However, in narrative sequences of the sort exemplified in (10), there is no problem about rendering the [+ perfective] simple past in (10)a by means of an unmarked past tense in Dutch (10)b.

(10) a. Before I left the house, I closed all the curtains and *I turned off the stove*.
b. Voordat ik het huis verliet, deed ik alle gordijnen dicht en *draaide ik het gas uit*.

Thus, whereas in narrative discourse the Dutch past tense can be either PERFECTIVE or IMPERFECTIVE, in non-narrative discourse it seems to have a clear preference for an IMPERFECTIVE interpretation. An explanation for this observation, and, more generally, for the differences in use between Dutch (8) and English (9)a, can again be given in terms of the availability of alternative forms of expression, together with the principle of the grammaticalization of zero.

In Chapter 4, I argued that the Dutch present perfect can be used to express PERFECTIVE PAST, at least in non-narrative discourse. I defined the non-narrative mode of presentation as one in which situations are presented as independently linked to the here-and-now of the speaker. Thus, if a situation is (a) to be situated in the past, (b) conceptualized as bounded (perfective aspect), and (c) linked independently to the here-and-now of the speaker rather than to a situation

presented in the preceding discourse (non-narrative), then a speaker of Dutch can use a present perfect to present the situation. In fact - and this is crucial for grammaticalization of zero to be explanatory (cf. previous subsection) - he does not seem to have another option. As for English, the three conditions listed above do not constitute a sufficient condition for the use of the present perfect. The English present perfect covers only a subdomain of the uses of the Dutch present perfect (roughly, the resultative and continuative domain; see 4.3). The distribution of the present perfect and the simple past in Dutch and English non-narrative discourse is represented in *Table 6.6*.

Table 6.6. Aspectual domain left to be covered by the unmarked past tense in English and Dutch non-narrative discourse.

Mode	NON-NARRATIVE		
Tense	PAST		
Aspect	PERFECTIVE	IMPERFECTIVE	
Eng.	*simple past*	*progressive*	
Dutch	*present perfect*	*simple past*	*loc.*

Given the principle of grammaticalization of zero, the situation depicted in *Table 6.6* can explain the pressure, observed above, to give an IMPERFECTIVE interpretation to the Dutch unmarked past tense when it is used in non-narrative discourse. If the Dutch present perfect covers the domain of PERFECTIVE PAST in non-narrative discourse, then the domain left to be covered by the unmarked past tense is obviously constituted by IMPERFECTIVE PAST. Thus, in the non-narrative context provided for (9)a *I turned off the stove* by Partee ("uttered half-way down the turnpike"), speakers of Dutch use a present perfect, as in (11), to present a perfective situation.

(11) Ik heb het gas uitgedraaid.
I have the gas turned off

As a consequence, use of the unmarked past tense as in (8) *Ik draaide het gas uit* automatically results in an IMPERFECTIVE PAST interpretation. In accordance with the discussion in the previous section, which made clear that the expression of IMPERFECTIVE PAST by means of a progressive is obligatory for events in English (see *Table 6.4*), it follows that in non-narrative discourse Dutch (8) is equivalent

to English (9)b *I was turning off the stove* rather than to English (9)a *I turned off the stove*.

It should be noted that an analysis in terms of PERFECTIVE and IMPERFECTIVE aspect is therefore better suited to explaining the distribution of perfect and past verb forms in Dutch non-narrative discourse than an analysis that is cast exclusively in terms of definiteness (see Chapter 2 for discussion). Even though the situation of turning off the stove is included in some salient, uniquely identifiable past interval of time, speakers of Dutch do not have the option of using an unmarked past here without at least strongly suggesting either an IMPERFECTIVE reading, or a narrative context in which the turning off of the stove is one in a chain of situations.

As the latter possibility makes clear, we need a different story for stories. The sequences that were given in (10) show that Dutch (8) is not always equivalent to English (9)b. Given that the IMPERFECTIVE interpretation of the unmarked past tense in non-narrative discourse was ascribed completely to the grammaticalization of the present perfect, the different situation for narrative discourse should no longer come as a surprise. The Dutch present perfect may be used to express PERFECTIVE PAST in non-narrative discourse, but it is not used to express PERFECTIVE PAST *per se*. More specifically, in addition to denoting a bounded situation in the past (PERFECTIVE PAST), the Dutch present perfect always expresses some link with the present moment, the here-and-now of the speaker. As argued in 4.4.2, it is difficult to reconcile this present dimension of the present perfect with what is considered to be a defining property of narrative discourse, namely bracketing of the speechpoint (Sandström 1993; Caenepeel 1995). In order for a sequence of sentences to constitute a coherent narrative, the situations presented should be linked to each other in a meaningful way, rather than each linked independently to the moment of utterance. In English, use of the present perfect to present a sequence of situations from the past is not possible at all, as is demonstrated in (12)a. In Dutch, such a presentation is definitely not excluded, but it does give sequences such as (12)b an additional, arguably non-narrative, flavour.

(12) a. ? He has come in. He has sat down at the couch and he has told us all that he his manuscript was finished.
b. Hij is binnengekomen. Hij is op de bank gaan zitten en heeft ons verteld dat zijn manuscript klaar was.

Table 6.7 shows the distribution of present perfect and simple past in Dutch and English narrative discourse.

Table 6.7. Aspectual domain left to be covered by the unmarked past tense in Dutch and English narrative discourse.

Mode	NARRATIVE		
Tense	PAST		
Aspect	PERFECTIVE	IMPERFECTIVE	
Eng.	*simple past*		*progressive*
Dutch	*perf.*	*simple past*	*loc.*

In Chapter 4, section 4.4.2.1, I provided some arguments in favour of including the Dutch present perfect when considering the use of tense in narrative discourse; this is why it is included in *Table 6.7*. What is important for the present discussion is the fact that use of the present perfect to express PERFECTIVE PAST is, *at the very least*, not obligatory in Dutch narrative discourse.

The consequences of the grammaticalization of the present perfect, or rather the lack thereof, for the interpretation of the unmarked past tense will now be clear. As the expression of PERFECTIVE PAST by means of a present perfect is not obligatory in Dutch narrative discourse, the principle of grammaticalization of zero does not work within the narrative domain and, as a result, the unmarked past tense in Dutch narrative discourse can be either IMPERFECTIVE or PERFECTIVE. This explains the intuition that I started out this section with, namely that the unmarked past tense in Dutch is more often perfective in narrative discourse than it is in non-narrative discourse. For English, the distinction between these two discourse modes is less important to understanding the distribution of the tenses, most notably because the unmarked past tense in English can be used as a PERFECTIVE PAST in both non-narrative and narrative discourse, that is both with and without independent linking to the point of speech.

6.3.5. Conclusion: the role of Aktionsart and discourse mode combined

In 6.3.3, I dealt with the role of Aktionsart without considering the effect of discourse mode; in 6.3.4, I dealt with the role of discourse mode without considering the effect of Aktionsart. Combining the results from both sections

results in *Table 6.8* and *Table 6.9*, which show the forms used in English and in Dutch to express PERFECTIVE PAST and IMPERFECTIVE PAST (SP = Simple past).[8]

Table 6.8. Forms used in English and in Dutch to express (PERFECTIVE/IMPERFECTIVE) aspect in the past for states and events in narrative discourse.

MODE	NARRATIVE							
AKTIONSART	STATE				EVENT			
ASPECT	PERFECTIVE		IMPERFECTIVE		PERFECTIVE		IMPERFECTIVE	
English	*SP*		*prog*	*SP*	*SP*		*progressive*	
Dutch	*perf*	*SP*	*SP*		*perf*	*SP*	*SP*	*loc*

Table 6.9. Forms used in English and in Dutch to express (PERFECTIVE/IMPERFECTIVE) aspect in the past for states and events in non-narrative discourse.

MODE	NON-NARRATIVE					
AKTIONSART	STATE			EVENT		
ASPECT	PERFECTIVE	IMPERFECTIVE		PERFECTIVE	IMPERFECTIVE	
English	*SP*	*prog*	*SP*	*SP*	*progressive*	
Dutch	*perfect*	*SP*		*perfect*	*SP*	*loc*

To sum up the discussion thus far, I have argued that the aspectual interpretation of the unmarked past tense in English and Dutch, as either PERFECTIVE PAST or IMPERFECTIVE PAST, is dependent on (a) Aktionsart, and (b) discourse type, i.e. the extent to which alternative means of expression explicitly conveying one or the other aspect have grammaticalized for certain Aktionsarten or in certain discourse types differs for both languages, with systematic consequences for the interpretation of the unmarked form. While it may be true that both the Dutch and the English past tense are semantically neutral when it comes to aspect, their aspectual interpretation may differ. In fact, in some contexts there is no overlap in their use at all: specifically, this is the case when these forms present an event

[8] The combination of perfective aspect and stative Aktionsart is somewhat problematic; see the discussion in section 5.5.3.1 on standard aspect choice.

(Aktionsart) in non-narrative discourse (discourse type) - see the right hand column of *Table 6.9*. As long as Aktionsart and discourse type are taken into account, the similarities and differences between the use of the Dutch and the English past tense are systematic and predictable.

In the remainder of this chapter, I will show how my aspectual analysis of the unmarked past in Dutch and in English can explain the contrastive data on complement clauses (6.4) and reverse-order sequences (6.5) first presented in 1.2.2. The main purpose of these sections is to solve the remaining puzzles from section 1.5. I will argue that the crucial ingredients needed to solve them are the same for complement clauses and reverse-order sequences, namely aspect and discourse mode.

6.4. Complement clauses (Sequence of tenses revisited)

6.4.1. A remaining puzzle. Given the analysis of PERFECTIVE and IMPERFECTIVE aspect in English and Dutch as developed in part II of this thesis, it is easy to explain why a simultaneity reading is ruled out in English (13)a while it is allowed in Dutch (13)b.[9]

(13) a. He said that he read a book on semantics.

b.

Hij	zei	dat	hij	een boek	over	semantiek	las.
he	said	that	he	a book	on	semantics	read

'He said that he was reading a book on semantics.'

The embedded clauses in (13)a and (13)b present accomplishments by means of an unmarked past tense. As the expression of IMPERFECTIVE PAST by means of a progressive verb form has fully grammaticalized for accomplishments in English, the use of the unmarked past tense in English to present an accomplishment results in a PERFECTIVE PAST reading. This rules out the simultaneity reading.[10]

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[9] The lexical content of the embedding verb may also affect the interpretation of such complement clauses; the discussion here is restricted to cases in which the matrix clause contains a verb of saying or thinking, as opposed to, for instance, verbs of knowing (Landeweerd 1998) or seeing (Barentsen 1996; Vogel 1997), which seem to impose less restrictions on the interpretation of the complement clause.

[10] An exception to this generalization is constituted by cases of "embedded narrative", such as *John told me that Mary came into the room and sat down at the dinner table*, where John's report (for instance, over the phone) may be simultaneous with the events happening before his eyes. I will turn to such cases in 6.4.3.

To express simultaneity with a point of reference in the past (IMPERFECTIVE PAST), English has to make use of the progressive as in the English rendering of Dutch (13)b. In Dutch, the expression of IMPERFECTIVE aspect by means of a locative verb formation is not obligatory for accomplishments and, as a result, the unmarked past tense in the embedded clause of Dutch (13)b allows for an IMPERFECTIVE reading. If the situation of saying in the matrix clause is chosen as the reference time required for the interpretation of the embedded IMPERFECTIVE, this results in the simultaneity reading of (13)b.

The analysis, furthermore, correctly predicts that the temporal interpretation of Dutch and English indirect speech does not differ when the embedded clause presents a state rather than an event. For states, the expression of IMPERFECTIVE aspect by means of a progressive/locative has not fully grammaticalized in English, and not grammaticalized at all in Dutch. Thus, the principle of grammaticalization of zero does not suffice to predict the aspectual interpretation of the unmarked past tense when it presents a state. On the basis of lexical content (Standard Aspect Choice, see 5.5.3.1), however, unmarked states typically receive an IMPERFECTIVE reading, thus allowing for the simultaneity reading in both English (14)a and Dutch (14)b.

(14) a. He said that he was ill.
b. Hij zei dat hij ziek was.
he said that he ill was

The explanation for the so-called back-shifted reading of embedded IMPERFECTIVES is basically the same.[11] On this reading, the state of being sick in (14)a and (14)b precedes the event of saying in the matrix. In my view, it results from taking a time preceding the matrix event - either given explicitly in the preceding discourse or inferrable therefrom - as the time of reference for the interpretation of the embedded IMPERFECTIVE. It can be concluded that IMPERFECTIVES in either English or Dutch receive the same interpretation, namely simultaneity with an independently provided time of reference, irrespective of both discourse type and syntactic environment. This is precisely what enables us to regard the anaphoric dimension as a semantic feature of imperfectives.

My analysis of aspect in English and Dutch in terms of grammaticalization of zero accounts for the contrastive data on the interpretation of complement clauses provided in 1.2.2. And yet, the story so far is incomplete at best. More

[11] As for the backshifted reading of an embedded perfective past, as in English (13)a, this reading follows partly from aspect (ruling out a simultaneity reading) and partly from pragmatic incompatibility (ruling out a forward-shifted reading), see esp. 2.2.2.4.

specifically, the interpretation of Dutch (13)b suggests that aspect is not sufficient to explain the temporal interpretation of the complement clauses discussed thus far. As was argued in 6.3.3, and represented in *Table 6.4*, the Dutch unmarked past tense presenting an accomplishment, such as /read a book/ in (13)b, allows for an IMPERFECTIVE PAST reading, and this explains the simultaneity reading of (13)b. However, according to the same table, the Dutch unmarked past tense also allows for a PERFECTIVE PAST reading. Still, the precedence reading of English (13)a is difficult, or even impossible, to get for Dutch (13)b.

Interestingly, even people who feel that the expression of IMPERFECTIVE aspect by means of a locative is obligatory for the predicate /een boek lezen/ in Dutch (see 5.4 for discussion), as in (15), do not automatically get the precedence reading if locative marking is lacking, as in (13)b.

(15)	Hij	zei	dat	hij	een boek	aan het lezen	was.
	he	said	that	he	a book	on the read	was
	'He said that he was reading a book.'						

This is an important observation because in the grammar of these people grammaticalization of zero would assign a PERFECTIVE PAST reading to *hij las een boek*, just like for English *he read a book*, and yet this does not automatically result in a precedence reading for Dutch (13)b as easily as it does for English (13)a.[12] This suggests that aspect does not suffice as an explanation for the interpretation of (13)a either.

The intuitions about the aspectual interpretation of the embedded clause of Dutch (13)b are strikingly similar to the general observation on the interpretation of the Dutch unmarked past tense *when used in non-narrative discourse* (6.2.4); in both cases, there is a clear preference for an IMPERFECTIVE reading (and people who do not accept the IMPERFECTIVE reading find these utterances infelicitous rather than PERFECTIVE). The puzzle of the unavailable precedence reading for (13)b would easily be solved, then, if it were true that indirect speech occurs exclusively in non-narrative discourse; in this discourse mode, the Dutch unmarked past tense is standardly interpreted as IMPERFECTIVE PAST because the domain of PERFECTIVE PAST is covered by the present perfect (see *Table 6.9*).

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[12] An arguably related puzzle is provided by the behavior of the French *passé simple*. It expresses perfective past, as the English simple past in event-clauses, but it hardly ever occurs in the embedded clause of indirect speech: ? *Il dit qu'il fut malade* (Landeweerd & Vet 1996: 143). I believe that my explanation for the lack of a precedence reading for Dutch (13)b can easily be generalized to offer an explanation for the non-occurrence of *passé simple* forms in such complement clauses; see fn. 20 (cf. Landeweerd 1998).

Even though it seems to be true that narrative discourse favours the use of direct discourse and *free* indirect discourse over indirect discourse (cf. Landeweerd & Vet 1996: 160, fn.6), instances of indirect speech obviously do occur in narrative discourse and the solution to the puzzle is therefore somewhat more complicated.

In the following section, I will argue that, nonetheless, the distinction between a narrative and a non-narrative mode is important to understanding the use of tense in indirect speech (Leuschner 1972), and that it can provide an explanation for the remaining puzzle constituted by the lack of a precedence reading for (13)b.[13]

6.4.2. Reporting strategies and discourse type

In section 2.2.2, I distinguished between a relative and an absolute analysis of embedded tense. According to the relative analysis, the temporal value of the embedded tense (past, present, future) is interpreted with respect to the time of the matrix clause, thus the point of speech of the reported speaker (S'), rather than with respect to the point of speech of the reporting speaker (S). Such relative use of tense can be found, in English and in Dutch, after matrix clauses referring to a point in the future, as in (16); the reference point at which the situation of being sick held can be past with respect to the situation of his telling us about it (S'), but it need not be past with respect to the moment of utterance of the reporting speaker (S).

(16) He will say that he was sick.

An absolute tense, on the other hand, is interpreted with respect to the point of speech of the reporting speaker. When, for instance, a present tense is embedded under a past tense in Dutch and English, as in (17)a, it is necessarily interpreted with respect to S. Thus, (17)a means that Mary is pregnant now.[14]

(17) a. John told me that Mary is pregnant.
b. John told me that Mary was pregnant.
c. John told me that Mary had been pregnant.

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[13] Thanks to Wim van der Wurff for sending me a copy of Leuschner's paper.

[14] It can only be interpreted such that Mary was already pregnant when John told us about it, but this double access effect, in my view, follows from a pragmatic inference (see 2.2.2.4).

The fact that (17)a does not exclusively make a claim about the state of the world at the time of John's speaking shows that English does not allow for relative use of tense after a past tense in the matrix clause.[15] If it did, the state of Mary being pregnant in (17)a would be interpreted as holding at S', but this is most naturally reported by (17)b. If the embedded past tense in (17)b were a relative past tense, it would express past with respect to S', but it does not necessarily do so. The latter reading is the only possible reading of (17)c, containing a past perfect in the embedded clause. The past perfect presents a state holding at a reference point in the past, as (17)b does, but, in addition, it presents a situation, as expressed by the past participle, *preceding* that state; we can, therefore, refer to the past perfect as an *absolute-relative* form.

Let us assume that a speaker (the reporting speaker) chooses the form of indirect speech to report the words that another speaker (the reported speaker) uttered in the past. When the embedded clause presents a situation that precedes both the time of the matrix (S') and, by implication, the point of speech of the reporting speaker (S), a speaker of Dutch or English has the following two options.

I. *The absolute reporting strategy.* The reporting speaker relates the embedded utterance exclusively to his own moment of utterance (S) - independently of the past moment at which the reported speaker uttered his words (S').
II. *The absolute-relative reporting strategy.* The reporting speaker takes the vantage point of the reported speaker (S') into account as an additional point of evaluation and relates the embedded utterance both to his own here-and-now (S) and to this moment in the past (S').

Let us assume that the reporting speaker wants to present a PERFECTIVE PAST event. What forms are available, in English and in Dutch, to do so on either reporting strategy?[16]

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[15] This is what standardly happens in, for instance, Russian and Japanese indirect speech. The traditional way of putting this is to say that such languages lack sequence of tenses (see, however, 2.2.2).

[16] The term *reporting strategy* is used in this context by Castelnovo & Vogel (1995).

I. The absolute reporting strategy

It is important to realize that what has been called the absolute reading in the literature on sequence of tenses represents an instance of what I have called non-narrative discourse in the preceding discussion: the embedded situation is presented as linked to the point of speech of the reporting speaker. Thus, the absolute reading is incompatible with bracketing of the speech-point (see 3.4.1. and 4.4.2) and is, therefore, by definition non-narrative. Now, the forms English and Dutch use to express PERFECTIVE PAST in this discourse mode can be found in *Table 6.9*, repeated here for convenience.

Table 6.9. Forms used in English and in Dutch to express (PERFECTIVE/IMPERFECTIVE) aspect in the past for states and events in non-narrative discourse.

MODE	NON-NARRATIVE				
AKTIONSART	STATE			EVENT	
ASPECT	PERFECTIVE	IMPERFECTIVE		PERFECTIVE	IMPERFECTIVE
English	*SP*	*Prog*	*SP*	*SP*	*Progressive*
Dutch	*Perfect*	*SP*		*Perfect*	*SP* / *Loc*

In non-narrative discourse, both English and Dutch may use a present perfect in the embedded clause to present the embedded situation as independently linked to S, as in (18)a and (18)b.[17] (Of course, in such non-narrative cases, the embedding clause in Dutch will often contain a present perfect rather than an unmarked past tense as well.)

(18) a. John told me that Mary has left.
b. John vertelde me dat Mary vertrokken is.
John told me that Mary left is

More specifically, in these sentences the (IMPERFECTIVE) state presented by means of the finite verb form in the embedded clause is interpreted as holding at S (=R) and the event presented by means of the participle precedes the moment at which the state is holding (=S). Thus, the analysis of the embedded state in (18)a and

[17] Recall that the English present perfect is absent from *Table 6.9* altogether because it expresses PRESENT PERFECT rather than PERFECTIVE PAST.

(18)b is the same as the analysis of any other state presented by means of a present tense, such as, for instance, the embedded state in (19).

(19) John told me that Mary is pregnant.

The fact that the event of Mary leaving in (18)a and (18)b *also* precedes the matrix event of John telling me about it - the double access phenomenon - is not expressed by the embedded perfect, but follows from the same pragmatic inference that requires the state of Mary being pregnant in (19) to be holding at S as much as at S' (see section 2.2.2.4).

As should be clear from *Table 6.9*, in Dutch there is no other way to express PERFECTIVE PAST in non-narrative discourse, thus on the absolute construal, than the use of the present perfect as in (18)b. English, however, can use the unmarked past tense under these circumstances. In fact, using the simple past rather than the perfect to express the absolute construal is often obligatory in English. Suppose, for instance, that the RESULT STATE of Mary's leaving (Mary is gone) is no longer valid at S because at some point before S Mary returned (4.3.1); or, alternatively, that the embedded clause contains a temporal adverbial referring to a definite moment in the past (4.3.3). As discussed in Chapter 4, in such cases use of the present perfect is not allowed in English and English speakers in fact have no other option than to use the simple past to express E preceding S independently of S', as in (20) (and in my original example (13)a).

(20) John told me that Mary left (yesterday).

Thus, I claim that the embedded past tense in (13)a and (20) expresses (perfective) past with respect to the point of speech of the reporting speaker (absolute) rather than with respect to the point of speech of the reported speaker (relative) (a similar analysis for such sentences is proposed by Declerck 1991).[18] The fact that the embedded event in these sentences cannot be simultaneous with S' I consider to be a matter of (PERFECTIVE) aspect, rather than tense (see 2.2.2.3); the forward shifted reading, in which the embedded event follows S', is ruled out by a pragmatic mechanism (see 2.2.2.4).

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[18] My analysis of these sentences is at odds with most current proposals, in which they are analysed as the embedded past tense expressing past with respect to S' (relative) rather than with respect to S (absolute), or as expressing past with respect to *both* S and S' (double access). It should be noted that these proposals imply that, in many cases, English speakers simply do not have the option of presenting an absolute construal at all. Further arguments in favour of my analysis were given in Chapter 2, esp. section 2.2.2.2.

My analysis suggests that, in non-narrative discourse, the Dutch equivalent of English (21)a is (21)c rather than (21)b.

(21) a. He said that he read a book on semantics.

b. Hij zei dat hij een boek over semantiek las.
He said that he a book on semantics read
'He said he read/was reading a book on semantics.'

c. Hij zei dat hij een boek over semantiek heeft gelezen.
he said that he a book on semantics has read
'He said that he read/has read a book on semantics.'

While it is, of course, possible to use an unmarked past tense in Dutch non-narrative discourse, as in the embedded clause of (21)b, the principle of grammaticalization of zero predicts that there will be a strong pressure to give the unmarked form an IMPERFECTIVE reading (6.2.4), and, as observed above, this is indeed the preferred interpretation of (21)b.

II. The absolute-relative reporting strategy

Suppose, again, that the reporting speaker wants to present a PERFECTIVE PAST situation, but this time he wants to present it (partly) *from the perspective of* the reported speaker (S'). It might seem as though the absolute-relative strategy can be characterized as a typically narrative one (Leuschner 1972) and according to *Table 6.8* the Dutch unmarked past tense at least should allow for a PERFECTIVE PAST reading in narrative discourse.

It should be noted, however, that the distinction between the two reporting strategies discussed here does not fully coincide with the distinction between narrative and non-narrative discourse. In particular, while it is true that the absolute reporting strategy is only available in non-narrative discourse, it is not true that the absolute-relative reporting strategy is restricted to narrative discourse. It may be typical for this discourse mode, in which events are *by definition* not independently linked to the present moment, but this reporting strategy might equally be used in non-narrative discourse. The reporting speaker, for instance, might not want to commit himself in any way to the relevance of the reported situation for the present moment, let alone to the truth of the utterance he is (merely) reporting.

What is crucial for the present discussion is that - irrespective of discourse mode - the domain of PERFECTIVE PAST *relative to another point in the past* is covered, in both English and Dutch, by the past perfect, as in (22)a and (22)b.

(22) a. John told me that Mary had left.
b. John vertelde me dat Marie was vertrokken.
John told me that Marie was left

In (22)a and (22)b, the finite verb form in the embedded clause presents a state holding at a moment in the past, just like, for instance, in (23).

(23) John told me that Mary was pregnant.

As discussed in Chapter 5, states need not be marked explicitly as IMPERFECTIVE in English or Dutch - indeed, the finite verb form of the (present and past) perfect cannot be marked as such (**John told me that Mary was having left*) - and yet they clearly get an IMPERFECTIVE interpretation. This means that, just like the embedded state in (23), the state denoted by the finite verb form in the embedded clause of (22)a and (22)b needs to be linked to an independently provided point of reference in the past. In (22)a and (22)b the event of telling in the matrix is obviously available as such. As the past participle invariably expresses precedence with respect to the RESULT STATE expressed by the finite verb form - this constitutes the relative part of the absolute-relative past perfect - Mary's leaving is automatically located in the past of the event of telling. Whether the reference time is provided by a situation presented in a syntactically superordinate clause or by any other kind of situation does not matter for the use and interpretation of imperfectives; the interpretation of an embedded past perfect, like that of any other embedded IMPERFECTIVE, is not different from the interpretation of the past perfect in an independent clause.

It should be noted that the reference time required for the interpretation of the embedded state in (22)a and (22)b is not necessarily provided by the matrix clause. For a sentence such as (24) (just as for the sentences in (22) and (23)) this will be the first interpretation that comes to mind.

(24) She told me that she had finished the manuscript.

But (22) and (24) also allow for an interpretation which is very similar to the backshifted reading of (23) (cf. discussion of (14)), as is illustrated in (25).

(25) At 5 o'clock she arrived at the publishers. She told me (later) that she had finished the manuscript (by then).

The analysis of the embedded past perfect in (22)a and (22)b is very similar to the analysis of the embedded present perfect discussed when dealing with the

absolute reporting strategy above: whereas the present perfect presents a state holding at the present moment, the past perfect presents a state holding at a moment in the past. There is, however, an important difference between the two cases. When discussing the absolute reading of the embedded present perfect, I pointed out that there are many constraints on the use of the present perfect to express PERFECTIVE PAST in English and that, therefore, English often has to use the simple past to express "PERFECTIVE PAST relative to S" (the absolute construal), as in (26).

(26) He told me that she read a book.

Now, if there were constraints on the use of the past perfect similar to those on the use of the present perfect, English would, again, have no other option than to use the simple past as in (26) to express the absolute-relative construal. This would mean that we would have to allow for the relative reading (E is past relative to S') as *at least one* of the readings of sentences such as (26) after all, and this would obviously invalidate the absolute analysis advocated above. However, in actual fact, there are no such constraints on the use of the past perfect (cf. Chapter 2, section 2.2.2.2) and its behaviour further substantiates rather than falsifies my absolute analysis of (26). For instance, use of the past perfect does not require the RESULT STATE of the past event to still be valid at R; thus, in contrast with (27)a, (27)b is fine.

(27) a. * John told me that Mary has left and then has returned again.
b. John told me that Mary had left the room and then had returned again.

Likewise, modifying the participle by means of a temporal adverbial locating the event at a definite moment in time, which is incompatible with the meaning of the present perfect (see (28)a), is allowed for the past perfect, as illustrated in (28)b.

(28) a. * John told me that Mary has left the room yesterday at 5.
b. John told me that Mary had left the room yesterday at 5.

Thus, the expression of "PERFECTIVE PAST relative to a point in the past" by means of the past perfect is grammaticalized in English and in Dutch in the way that the expression of "PERFECTIVE PAST relative to the present" by means of the present perfect is grammaticalized in Dutch non-narrative discourse. None of the additional constraints on the use of the English present perfect hold for its past

equivalent. In a way, at least semantically, the English past perfect is the past equivalent of the Dutch present perfect rather than of the English one.

From this, we might derive a further argument in favour of the absolute analysis of sentences such as (26): if the expression of "PERFECTIVE PAST *relative to S*'" has grammaticalized in the use of the past perfect, grammaticalization of zero predicts that there will be a strong pressure to give an absolute reading to the embedded simple past as in (26).

An obvious advantage of this analysis is that it distinguishes between (29)a and (29)b.

(29) a. John told me that Mary left.
b. John told me that Mary had left.

Comrie (1986) claims that, in English, any past tense locating an event prior to a reference point in the past can be converted into a past perfect. In a similar vein, Partee (1984: 264) remarks that the use of a past perfect is "hardly ever obligatory in ordinary English". According to my analysis, however, the past perfect and the simple past in (29)a and (29)b are not interchangeable. Semantically, they differ in the following way. In (29)a, the embedded past tense expresses precedence with respect to S. In (29)b, the embedded past perfect presents a state holding at a reference time, which may be provided by the matrix clause; the past participle expresses precedence relative to the state holding at this reference time. As for their difference in use, my analysis predicts that (29)a can only be used in non-narrative discourse, in which events are independently linked to the point of speech, that is, in this case, to the here-and-now of the reporting speaker; its Dutch equivalent contains a present perfect in the embedded clause. In these circumstances, using a past perfect in the embedded clauses, in fact, results in an infelicitous utterance, see (30).

(30) A: Is Mary around?
B: Sorry, no, John told me that she left/has left/?had left

(29)b can be used in both narrative and non-narrative discourse. In narrative discourse, it seems to be the only way to express the idea that the embedded situation precedes the matrix event; in non-narrative discourse, (29)b can be used if, for whatever reason, the reporting speaker wishes to leave the responsibility for the reported utterance with the reported speaker.

Thus, the issue whether backshifting (the absolute-relative construal) or no backshifting (the absolute construal) represents the unmarked case is fully dependent on the discourse mode in which indirect speech occurs, as was already

pointed out by Leuschner (1972). In fact, Leuschner goes as far as to treat all cases of backshifting in non-narrative discourse, as in (29)b, as "deceptive usage", that is tense usage in non-narrative discourse *as if it were narrative discourse*.[19]

6.4.3. Solution

At this point, I have arrived at a solution for the puzzle I set out to explain in this section. The main puzzle was the following. My initial explanation for the precedence reading of English (31)a was the PERFECTIVE PAST value of the simple past when it presents an event (see also Boogaart 1996).

(31) a. He said that he read a book on semantics.

b.

Hij	zei	dat	hij	een boek	over	semantiek	las.
he	said	that	he	a book	on	semantics	read

'He said that he read/was reading a book on semantics.'

The problem was that, according to my analysis, the Dutch unmarked past tense also allows for a PERFECTIVE PAST reading, at least in narrative discourse, and yet Dutch (31)b does not easily allow for the kind of precedence reading exemplified by English (31)a. The solution to the puzzle involved a distinction between two reporting strategies, partly corresponding to the distinction between absolute and relative tense interpretation discussed in Chapter 2. The tenses used in English and in Dutch to express PERFECTIVE PAST on either reporting strategy are presented in *Table 6.10*.

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[19] That the absolute construal is the unmarked option in non-narrative discourse is confirmed by quantitative data such as those reported on by Redeker (1996): she found backshifting of the embedded tense in only 30% of the indirect speech reports in her corpus of newspaper articles. In the traditional account, which does not distinguish between different discourse modes, all these cases have to be treated as exceptions to the rule (of *sequence of tenses*).

Table 6.10. Forms used in English and Dutch complement clauses after a past tense to express perfective past on two different reporting strategies.

aspect	PERFECTIVE PAST	
reporting strategy	Relative to S	Relative to S' (<S)
English	*Simple past*	*Past perfect*
Dutch	*Present perfect*	*Past perfect*

The Dutch unmarked past tense does not occur as a PERFECTIVE PAST on either reporting strategy, whereas the English simple past can be used as such on the first reporting strategy. Thus, the reason that Dutch (31)b does not easily get a precedence reading but, instead, favours a simultaneity reading - at least for those people who do not find the use of a locative obligatory on the latter reading (see 5.4) - is because for the precedence reading Dutch obligatorily uses a present perfect on the absolute reporting strategy and a past perfect on the absolute-relative reporting strategy.[20]

The reason that the English simple past, unlike the Dutch one, can be used in instances where the embedded event precedes the matrix event is not, or not exclusively, because the simple past can get a PERFECTIVE PAST reading, but rather because, in addition, it can get a PERFECTIVE PAST reading *in non-narrative discourse*, where the situation is independently anchored to the here-and-now of the reporting speaker. Thus, indirectly, contrastive analysis with Dutch (see also fn. 20 on French) provides me with further evidence in favour of the absolute analysis of English sentences such as (31)a.

There is one important group of cases that has not yet been discussed. Neither of the two reporting strategies mentioned in *Table 6.10* allows for the Dutch unmarked past tense to be used as a PERFECTIVE PAST. And yet, as discussed for instance in section 6.3.4 (and visualized in *Table 6.8*), the Dutch unmarked past tense does allow for such PERFECTIVE interpretations. In particular, it can be used as a PERFECTIVE PAST *in narrative discourse*. As for the reporting strategies

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[20] As for the related puzzle from French, where the perfective past *passé simple* is hardly ever used in complement clauses, French uses a *passé composé* to express PERFECTIVE PAST relative to S (the first, non-narrative reporting stragegy; see Landeweerd & Vet 1995; Vet 1996; Landeweerd 1998), and a *plus-que-parfait*, just like English and Dutch, to express past relative to another moment in the past (the second reporting strategy).

discussed above, the absolute strategy is by definition non-narrative, because it links the embedded situation independently to the deictic centre of the reporting speaker; the absolute-relative strategy is arguably a different issue altogether as both Dutch and English have special forms to express "PERFECTIVE PAST *relative to a reference point in the past*", which may be used in both narrative and non-narrative discourse. Now what about the perfective past use of the Dutch past tense that is typical of narratives, as in (32)?

(32) Piet kwam binnen en liep naar het raam.
Piet came in and walked to the window
'Piet came in and walked to the window.'

Such a narrative chain of situations can, of course, be presented as someone else's report, as in (33).

(33) Marie vertelde me dat Piet binnenkwam en naar het raam liep.
Marie told me that Piet came in and to the window walked
'Marie told me that Piet came in and walked to the window.'

The embedded past tenses in (33) get a PERFECTIVE PAST reading and, therefore, the sentence in (33) constitutes a counterexample to the claim that the Dutch unmarked past tense does not allow for a PERFECTIVE PAST reading in complement clauses. In this case, the Dutch unmarked past tense is indeed equivalent to the English simple past, as is evidenced by the English translation of (33). However, this case should be distinguished from the cases discussed thus far. The embedded events in (33) are not independently linked to the here-and-now of the reporting speaker (as in the non-narrative, absolute reporting strategy), nor are they linked to the situation of Marie's telling (as in the absolute-relative reporting strategy). Rather, the embedded situations, just like the unembedded situations in (32), are primarily linked to each other and, as in any narrative, their independent relationship to S (or S') is at best secondary.

It is important to note that such embedded narrative is not restricted to instances such as (33), where a chain of (at least) two situations is presented in the embedded clause. Thus, the embedded event in (34) is likewise part of a narrative chain of events - and this is what licences the use of a PERFECTIVE PAST in the embedded clause - but the other links of the narrative chain are to be found in the surrounding discourse (cf. Janssen 1996).

(34) A: And then what happened?
B: Marie told me that John left (then).

The tenses used in the embedded clauses of (33) and (34) are simply the same tenses as used in any stretch of narrative discourse in Dutch and English; the events are linked to each other as in any narrative irrespective of the event of telling in the matrix clause. Therefore, the Dutch equivalent of B's utterance in (34) would contain an unmarked past as well; both in Dutch and in English, the unmarked past tense is the form used to express PERFECTIVE PAST in narrative discourse, as was reflected in *Table 6.8*.

The crucial role of discourse mode for the use and interpretation of tense can be illustrated by the fact that in narrative discourse the interpretation of the indirect speech in English (35)b equals that of Dutch (35)a (see (34)), whereas in non-narrative discourse, the temporal interpretation of the English and the Dutch sentence is diametrically opposed.

(35) a. Marie vertelde me dat John wegging.
Marie told me that John left
'Marie told me that John was leaving.'
b. Mary told me that John left.

Thus, when used in non-narrative discourse, English (35)b can only be taken to mean that John's departure precedes Mary's informing me about it; the most easily available interpretation of Dutch (35)a, however, is one in which John's departure is posterior to Mary's telling me about it (cf. 5.4.2.4; see also 7.5 on the interaction of imperfective aspect and future/modal readings).

The fact that embedded situations as in (33) make up a narrative sequence of their own - a way of reporting to be distinguished both from the absolute (non-narrative) reporting strategy and the absolute-relative reporting strategy discussed above - is also evidenced by the fact that such sentences constitute the only case in which embedded events presented by means of a PERFECTIVE PAST may be simultaneous with the matrix event. The sentence in (32) is compatible with a reading in which Mary was giving a real-time eye witness report by telephone of the situations unfolding before her eyes. This shows that the aspectual interpretation of the embedded tenses in (33) exclusively conveys information about the way the situation are linked to each other - completely independently of the matrix event.

To conclude, my analysis of PERFECTIVE and IMPERFECTIVE aspect in English and Dutch, which takes into account Aktionsart and discourse mode, is sufficient to explain the initial contrastive observations, as well as some other puzzles

concerning the interpretation of complement clauses. The postulation of a formal device such as sequence of tenses was not necessary. In the following section I will show that the same ingredients are sufficient to explain the contrastive data on reverse-order presentation.

6.5. Reverse-order presentation

6.5.1. Imperfective past

The analysis of reverse-order sequences in which the second sentence contains an imperfective is relatively straightforward. In Chapter 1, the reverse-order interpretation of an (aspectually unmarked) event-state sequence in English and in Dutch was illustrated by means of (36).

(36) a. He switched on the light. It was too dark to read.

b.	Hij	deed	het licht	aan.	Het	was	te donker	om te	lezen.
	he	did	the light	on	it	was	too dark	to	read

As argued in 6.3.3, stative clauses containing an unmarked past receive an identical aspectual interpretation in English and Dutch. The expression of IMPERFECTIVE aspect by means of a progressive or a locative has not (fully) grammaticalized for states in English or Dutch, but - on the basis of lexical content (5.5.3.1) - stative clauses typically receive an IMPERFECTIVE reading in either language. Imperfectives need to be linked to an independently provided reference time. Such a reference time will often be provided by an event explicitly mentioned in the preceding clause or sentence, but it may also be a point in time (a *point of perspective*) at which, for instance, a story character is seeing or contemplating things.

As for (36)a and (36)b, we might consider taking the event of switching on the light in the first clause as providing the time of reference for the interpretation of the IMPERFECTIVE in the second clause. This, in fact, is the standard analysis for any event-state sequence within *Discourse Representation Theory* (Kamp & Reyle 1993). In Chapter 2, however, I argued that in (non reverse-order) event-state sequences such as (37), it makes more sense to interpret the state of the room being dark, presented in the second sentence, as the first thing John saw or

realized when he opened the door, thus as holding at a point of perspective just after the event of the previous clause.[21]

(37) John opened the door. It was pitch dark in the room.

In a similar way, the state of the second sentence in (36) can be analysed as holding at a reference time to be situated just before the event of the first sentence; this reference time is constituted by the (perspective) point at which John realized that this state was holding (which then motivated him to switch on the light). Both in (36) and in (37), the state of the second sentence is thus interpreted as holding at an independently provided (or inferrable) point of reference, the exact nature and temporal location of which is determined on the basis of pragmatics. In cases such as in (36), it is most plausible to locate the state at a (perspective) point just before the event of the preceding sentence, resulting in a reverse-order sequence, but this is clearly compatible with the semantics of any IMPERFECTIVE. The same analysis is, for instance, applicable to the English progressive in (38)a, and to the Dutch unmarked past tense in the second sentence of (38)b.

(38) a. He took an aspirin. He was feeling nauseous.

b.	Hij	nam	een aspirine.	Hij	voelde	zich	niet lekker.
	he	took	an aspirin	he	felt	himself	not well

When interpreting (38)a and (38)b, we may assume that the situation of feeling sick, denoted by the IMPERFECTIVE in the second sentence, does not hold exclusively at a point in time *before* the event of the first sentence. It is very likely that it continues for some time after the event of taking an aspirin in the first sentence. Thus, the event is included in the state of the second sentence, as the standard rules predict. In this sense, these sequences differ from (36) in which we can regard the event of switching on the light as constituting the left bound of the state of the room being dark. However, such inferences are based entirely on our common-sense knowledge about the compatibility of situations (see 3.4.2), and are not given by the aspectual information in these sentences.

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[21] I am ignoring the (reverse-order) reading in which John opened the door *because* it was so dark in the room. Furthermore, the reference time at which the IMPERFECTIVE of the second sentence is holding is not necessarily constituted by a perception event of John's; it may exclusively be the perspective of the narrator that is involved. Thus, *it was pitch dark in the room, but John was too self-absorbed to notice it* is not incoherent.

As for the past perfect in the second sentence of (39), here too an IMPERFECTIVE, namely the state denoted by the finite verb form, is presented as holding at some contextually provided reference time.

(39) a. John fell. Max had pushed him.
b. John viel. Max had hem geduwd.
John fell Max had him pushed

An obvious candidate for reference time in (39) is the time of John's falling presented in the preceding sentence. The RESULT STATE of Max's pushing is then assumed to be holding at the time of John falling, which automatically orders the pushing itself prior to John's falling.

There is, however, an alternative interpretation of (39), which is similar to the interpretation proposed for (36)-(38) above. Suppose that (39) is part of a narrative that is presented completely from John's perspective. In that case, it makes sense to attribute the content of the second sentence to John, who realized that he was pushed by Max (*Suddenly he fell. That jerk had pushed him! He wouldn't get away with it.*) On this reading, the state denoted by the finite verb form is interpreted as holding at a perspective point just after the falling, just as in (37) the state of the room being dark is interpreted as holding at a perspective point just after the opening of the door. That the event of Max's pushing caused, and therefore preceded, John's falling follows from pragmatic reasoning.

Thus, reverse-order is not part of the semantics of simple past - past perfect sequences any more than simultaneity is part of the semantics of any other event-state (or, more generally, perfective-imperfective) sequence. The realization that comes just after the event presented in a preceding sentence, might, for instance, also be a realization about the event itself rather than about an event preceding it, as in (40).

(40) At that moment he dropped the vase. He had broken Mary's most precious possession!

Here, the event presented by means of (the participial part of the) past perfect in the second sentence does not precede the event presented in the first sentence. Arguably, the event of breaking is in fact posterior to the event of dropping the vase. For my analysis of the past perfect, and the category of IMPERFECTIVE in general, such cases do not constitute a problem. The IMPERFECTIVE state denoted by the past perfect in the second sentence of (40) is holding at a perspective point just after (in the RESULT STATE of) the event of the first sentence; the event of the

past participle precedes the reference point, but not necessarily also the event of dropping the vase in the first sentence.

Thus, all interpretations discussed so far are compatible with the semantics proposed for IMPERFECTIVES and, once again (cf. the previous section on complement clauses), the analysis of IMPERFECTIVE PAST is relatively straightforward - and, moreover, the same for Dutch and English - compared to the analysis of PERFECTIVE PAST.

6.5.2. Perfective past

While the possibility of reverse-order presentation does not differ for Dutch and English when the second sentence presents a state or, more generally, an IMPERFECTIVE, a difference between Dutch and English can be observed in (41), presenting two events or, more generally, two instances of PERFECTIVE PAST.

(41) a. John fell. Max pushed him.
b. Jan viel. Max duwde hem.
John fell Max pushed him

More specifically, it is felt that Dutch (41)b is more awkward on the reverse-order reading than English (41)a is. To be sure, not all native speakers of English are equally enthousiastic about the reverse-order interpretation of (41)a either. However, by adding context and giving these sequences a specific intonation pattern (see below), it can easily be shown that the English unmarked past does occur in reverse-order sequences. Now, precisely *the kind of* context required for English (41)a to be at all acceptable on the reverse-order reading will help explain why it is less likely for Dutch (41)b to get a reverse-order interpretation than it is for English (41)a.

Caenepeel & Moens (1994) argue convincingly that the reverse-order interpretation of English (41)a is available *exclusively in non-narrative discourse*.[22] They define this discourse type as one in which an utterance "is deictically related to the actual situation of speech, so that the situational features of the latter contribute directly to the understanding of the utterance" (1994: 13).

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[22] However, for reverse-order sequences in which the second sentence presents an IMPERFECTIVE, the distinction between narrative and non-narrative discourse does not play a role (cf. 3.4.1.1). In fact, all reverse-order cases discussed in the previous subsection have a narrative flavour. As argued there, the IMPERFECTIVE will often be interpreted as a thought or perception of a character and this phenomenon of free indirect speech/thought is typically narrative.

They give the following example of a reverse-order sequence in non-narrative discourse.

(42) context: A runs into B, an old friend he has not seen for a long time.
He asks B how he's doing. B replies:
Not great. *Jane left me. She fell in love with someone else.*

Applied to the use and interpretation of tense, Caenepeel & Moens' definition of non-narrative discourse implies that this discourse type uses what I have called "the absolute strategy" in the preceding discussion of complement clauses: events are independently linked to the here-and-now, thus to *the point of speech* S. Now, if the simple past forms in (42) exclusively situate the situations of Jane's leaving and her falling in love with someone else before S, then the linguistic information provided by the tense forms is obviously compatible with any temporal ordering between them (cf. Molendijk 1992). Given an appropriate intonation pattern, the sequence will get a reverse-order interpretation. Thus, the analysis of the simple past tense in (41)a, on its reverse-order reading, equals my analysis of the embedded past tense in (43)a (see previous subsection): in both cases, the simple past links the situation to S, independently of other events in the past, and the temporal ordering is determined on the basis of (a) aspect, and (b) pragmatic incompatibility.

(43) a. John told me that Jane left.
b. John fell. Max pushed him.

Caenepeel & Moens (1994: 13) argue, furthermore, that narrative discourse requires the use of explicit marking, for example by means of a past perfect in the second sentence, for the expression of a reverse-order relation (see, however, section 7.2). Again, a similar observation was made in the preceding section about the occurrence of the past perfect in complement clauses such as (44)a.

(44) a. John told me that Jane had left.
b. John fell. Max had pushed him.

In both (44)a and (44)b the state denoted by the finite verb form is linked to a point of reference in the past, which in either case may or may not be given by the event in the preceding clause or sentence (see previous subsection).

Given the restrictions on the reverse-order reading of English (41)a, as discussed by Caenepeel & Moens, the Dutch data can now be given a

straightforward explanation.[23] The possibility of a reverse-order reading in (41)a arises out of a combination of two things, namely (a) PERFECTIVE PAST, and (b) a non-narrative context. As for aspect, on the reverse-order reading John's falling is situated in the RESULT STATE of Max's pushing and a PERFECTIVE (right-bounded) interpretation of the second past tense is, therefore, required to obtain this reading. The issue of discourse type was discussed above: non-narrative discourse imposes less restrictions on interclausal temporal ordering and reverse-order readings are, therefore, allowed. The forms English and Dutch use to express PERFECTIVE PAST in non-narrative discourse can be found in *Table 6.9*, repeated here for convenience.

Table 6.9. Forms used in English and in Dutch to express (perfective/imperfective) aspect in the past for states and events in non-narrative discourse.

MODE	NON-NARRATIVE					
AKTIONSART	STATE			EVENT		
ASPECT	PERFECTIVE	IMPERFECTIVE		PERFECTIVE	IMPERFECTIVE	
English	*SP*	*Prog*	*SP*	*SP*	*Progressive*	
Dutch	*Perfect*	*SP*		*Perfect*	*SP*	*Loc*

Whereas English may use an unmarked past tense to express PERFECTIVE aspect in non-narrative discourse, Dutch cannot use the unmarked past to present a PERFECTIVE event that is independently linked to S. Instead, as can be seen in *Table 6.9*, Dutch uses the present perfect in such cases. Thus, for the same reason that Dutch (45)a was argued to be an adequate rendering of English (43)a in non-narrative discourse, (45)b may be regarded as a Dutch equivalent of (43)b, or at least as one of the possible translations of English (43)b (see below for other possibilities).

(45)	a.	Hij	vertelde	me	dat	John	gevallen	is.
		he	told	me	that	John	fallen	is

[23] In a similar way, Vet (1996) has applied Caenepeel & Moens's proposal to French, in order to explain why the *passé simple* does not occur in reverse-order sequences. While the French *passé simple* and the Dutch unmarked past are very different in many respects - most importantly, the Dutch past tense allows for IMPERFECTIVE readings - they have in common that they are not used to express PERFECTIVE PAST and, at the same time, "independent linking to S" (cf. the previous subsection for their similar behaviour in complement clauses).

b. John is gevallen. Max heeft hem geduwd.
John is fallen Max has him pushed

And indeed, the intuitions about the possibility of reverse-order interpretation in Dutch for two consecutive sentences containing a present perfect, such as (45)b, are identical to those for two consecutive sentences containing a simple past in English, such as (43)b.[24] Pragmatic rules for reverse-order interpretation, such as those developed in the work of Lascarides et al. (cf. 3.4.2.2), do not predict the correct interpretation for simple past sequences in Dutch, but they can be applied to present perfect sequences such as (45)b: if the second clause is understood as explaining the occurrence of the first one (and, in spoken discourse, given an appropriate intonation), such sequences will get a reverse-order reading. An actual example is given in (46).

(46) Ik ben me kapot geschrokken. Ik heb thuis
I am myself broken shocked I have at home
sexblaadjes gevonden. (VPRO gids, 25th November 1995)
porn mags found
'I was shocked to death. I found porn magazines at my house.'

While English may, of course, also use a present perfect to present a past event in non-narrative discourse, the restrictions on its use are much more strict than the restrictions on the use of the Dutch present perfect. In the preceding section I pointed out such restrictions on the use of the present perfect in complement clauses such as (47)a and I argued that English often has no other option than to use the simple past on the absolute strategy.

(47) a. He told me that John has fallen.
b. John has fallen. Max has pushed him.

In a way, the problem is doubled for (47)b. It is not difficult to think of a context in which English can use a present perfect to present the event of John falling, as in the first sentence of (47)b. It can, for instance, be used in a situation in which John is still lying on the floor at the moment of speaking, thus in a situation in which the RESULT STATE of the past event is still holding and can be focused upon (4.3.1). This is true both for the embedded present perfect in (47)a and for

[24] Some people, however, feel that after a present perfect in the first sentence, it is more natural to use an unmarked past in the second sentence; I will address this combination below.

the first present perfect in (47)b. In (47)b, however, there is yet another instance of the present perfect in the second sentence and its use has to be independently motivated. Now while this possibility should not be totally excluded, it will be clear that the occurrence of reverse-order sequences containing two present perfect forms will be more restricted in English than it is in Dutch.[25]

As for the Dutch sequence in (41)b, repeated here as (48), combining Caenepeel & Moens's analysis of English with my analysis of Dutch predicts that the events will be interpreted as having happened in the order in which they are presented.

(48) Jan viel. Max duwde hem.
Jan fell Max pushed him

The Dutch past tense can be used to present PERFECTIVE PAST events, but it can be used as such exclusively in narrative discourse. Indeed, in this discourse mode, the unmarked past might well be considered the only possibility to express PERFECTIVE PAST in both Dutch and English; see *Table 6.8*, repeated below.[26]

Table 6.8. Forms used in English and in Dutch to express (PERFECTIVE/IMPERFECTIVE) aspect in the past for states *and* events in narrative discourse.

MODE	NARRATIVE							
AKTIONSART	STATE				EVENT			
ASPECT	PERFECTIVE		IMPERFECTIVE		PERFECTIVE		IMPERFECTIVE	
English	*SP*		*prog*	*SP*	*SP*		*progressive*	
Dutch	*perf*	*SP*	*SP*		*perf*	*SP*	*SP*	*loc*

[25] A possible context in which English (47)b can be used is one in which there was a prior arrangement that Max would push John. From the fact that we observe John lying on the floor (*John has fallen*), we may then conclude that Max executed the pushing (*Max has pushed him*); cf. *The safe has opened! Ah, we have (finally) found the combination!*

[26] Caenepeel & Moens's (1994: 19, fn.13) claim that in languages such as Dutch, French, and German, the simple past tense may act as "an indicator of narrativity" should, at least for Dutch, be restricted to the PERFECTIVE PAST use of the past tense. Recall that the Dutch unmarked past tense is the only way to express IMPERFECTIVE PAST (which includes most states), whether in narrative or non-narrative discourse.

If we interpret (48) as a narrative sequence, which indeed seems to be the only option available in Dutch, then we will assume the events to have happened in the order in which they are presented; such iconic sequencing is the unmarked option in narrative discourse (see 3.4.1). Whereas our world knowledge about pushing and falling might suggest a reverse-order reading, this is incompatible with the standard narrative ordering signaled by the PERFECTIVE PAST. As Caenepeel & Moens argue, any digression from the basic narrative scheme will have to be marked as such, for instance by the use of a past perfect as in (49)a. Thus, Dutch (49)a seems to be equivalent to English (49)b rather than to English (41)a.

(49) a. John viel. Max had hem geduwd.
John fell Max had him pushed
b. John fell. Max had pushed him.

To conclude this section, I will briefly discuss two other combinations that are compatible with a reverse-order reading, namely (a) present perfect - past perfect, and (b) present perfect - simple past.

present perfect - past perfect

English (49)b might also correspond to Dutch (50)a.

(50) a. John is gevallen. Max had hem geduwd.
John is fallen Max had him pushed
b. ? John has fallen. Max had pushed him.

English (50)b does not constitute a coherent sequence. This is because the English present perfect in the first sentence focuses on the RESULT STATE of John's falling, holding at the present moment; the IMPERFECTIVE state denoted by the finite verb from takes the point of speech as its point of reference (S,R). However, the IMPERFECTIVE state denoted by the finite verb form of the past perfect in the second sentence requires a reference time in the past, preferably constituted by the event of John falling (E,R < S). Both sentences thus present incompatible information: the past perfect in the second sentence needs a reference time in the past independently provided by the context, but the present perfect in the first sentence, being a *PRESENT* PERFECT rather than a PERFECTIVE

PAST (see Chapter 4), had just established the point of speech as the reference time (cf. *Max is sick. ?He had eaten too much*).[27]

As for Dutch, the combination of a present perfect and a past perfect as in (50)a is not unusual; it can, for instance, be found in the following newspaper report (taken from Clement 1997: 117).

(51) Een luchtballon met vier passagiers heeft zondagmiddag een geslaagde noodlanding gemaakt op een grasveld langs de A4 bij de bloemenveiling Rijnsburg. De ballon was opgestegen vanaf vliegveld Zestienhoven in Rotterdam.
'Sunday afternoon, a hot air balloon carrying four passengers succesfully made (lit. has made) an emergency landing in a field along the A4 near the Rijnsburg flower auction. The balloon had taken off from Zestienhoven airport Rotterdam.'

The Dutch present perfect can be used as a PERFECTIVE PAST in non-narrative discourse. In this function, it may still express some link with the present moment, but it does not, or not necessarily, present the RESULT STATE of the past event as anaphorically linked to S (E < S,R); PRESENT PERFECT is just one of the interpretations of the Dutch present perfect. Thus, the Dutch present perfect does not require *exclusive* focus at the present moment; it equally makes the event of the past participle available to provide the time of reference for the interpretation of the IMPERFECTIVE part of the past perfect in the subsequent discourse. The combination of a present perfect and a past perfect as in Dutch (50)a and (51) seems to involve a switch from a non-narrative to a narrative discourse mode. This phenomenon is a more general one; it can also be noted in the last combination to be discussed.

present perfect - simple past

A sequence of sentences containing a present perfect in the first sentence and a simple past in the second sentence, as in Dutch (52)b, is compatible with a reverse-order reading; this combination is acceptable in English as well, see (52)a.[28] In fact, in either language these sequences seem to constitute more

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[27] Cf. Reichenbach's (1947) principle of *Permanence of the Reference Point.*

[28] For the sake of completeness: sequences of past perfect and simple past (*John had fallen. Max pushed him.*) are equally compatible with reverse-order readings and this is true of both Dutch and English (see Janssen 1995).

coherent discourses than those in (53)a and (53)b, where *both* sentences contain a present perfect. Why is this so?

(52) a. Max has fallen. John pushed him.
b. Max is gevallen. John duwde hem.
Max is fallen John pushed him
(53) a. Max has fallen. John has pushed him.
b. Max is gevallen. John heeft hem geduwd.
Max is fallen John has him pushed

The occurrence of a present perfect in the first sentence signals a non-narrative discourse mode: the finite verb form of the present perfect presents a state holding at the here-and-now of the speaker's; the event of the past participle precedes the point of speech independently of other events in the past. The PERFECTIVE PAST in the second sentence of Dutch (52)b signals a switch from a non-narrative to a narrative discourse mode.[29] This pattern of "preterit enabled by (plu)perfect" (Janssen 1995) is a very common one in Dutch: once the link with the present moment has explicitly been established by means of a present perfect, the point of speech can be bracketed and the focus shifts completely to the events in the past and to the relationships between these events.[30] The relationship of the individual events to the point of speech is irrelevant for the processing of a narrative chain of events; use of the unmarked past signals that the situation has to be linked coherently to the preceding discourse rather than linked to the point of speech independently of the surrounding discourse.

As the present perfect in the first sentence of (52)b does not signal narrative processing, it does not require the event of the following sentence to be the next one in an iconically presented chain of events; the narrative chain itself does not start until the PERFECTIVE PAST in the second sentence has been processed. Non-narrative discourse imposes fewer constraints on the temporal interpretation of the following discourse than narrative discourse does and as the Dutch present perfect is used exclusively in non-narrative discourse, this explains why (52)b is acceptable on the reverse-order reading, whereas (41)b is not. Still, the situation in

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[29] Without further context, it is difficult to decide whether or not there is a switch of discourse mode in the English sequence in (52)a, as the PERFECTIVE PAST simple past, used in the second sentence, has both narrative and non-narrative interpretations. Still, the Dutch data suggest that such a switch should be *at least one* of the interpretations of English (52)a; however, the issue is irrelevant for the use of tense in English.

[30] See, for instance, Overdiep (1939), Kirsner (1969), Koefoed (1984), Janssen (1989, 1991, 1995), Onrust/Verhagen/Doeve (1993), Clement (1997).

the second sentence of (52)b is itself presented by means of the unmarked past and thus has to be coherently linked to the situation presented by means of the past participle in the first sentence, rather than independently to S. As the present perfect did not require iconic sequencing yet, the set of possible coherence relations to choose from is larger than it would be after a sentence containing a simple past. Obviously, the coherence relation of *explanation*, in which the second sentence provides the cause for the event of the first sentence (Lascarides et al.), is among these possible coherence relations. In fact, cause and effect are so tightly related that *explicitly* presenting both of them as independently related to the point of speech, by means of the present perfect as in (53), results in a less coherent utterance than (52).

In section 7.2, I will present some complications and remainig problems in the domain of reverse-order interpretation.

6.6. Conclusion

The first part of this chapter was dedicated to solving the paradox that the English and the Dutch simple past tense are often unambiguously interpreted as either perfective or imperfective while both tenses are aspectually unmarked. The disambiguation of these tenses cannot be ascribed completely to lexical content or to context because the aspectual interpretation of the Dutch and the English past tense systematically differs even if lexical content and context are kept constant.

I showed that the aspectual interpretation of the unmarked tense is systematic and predictable given an understanding of (a) Aktionsart and (b) discourse type. Since the use of the present perfect and the progressive/locatives (discussed in Chapter 4 and 5, respectively) to express PERFECTIVE PAST and IMPERFECTIVE PAST is obligatory in certain contexts, grammaticalization of zero predicts the aspectual interpretation of the unmarked past in these contexts. More specifically, the analysis provides an explanation for the fact that the English simple past behaves like a perfective past tense in eventive clauses whereas the Dutch simple past can be either perfective or imperfective in eventive clauses; in addition, it explained why the Dutch unmarked past is usually interpreted as imperfective in non-narrative discourse whereas the aspectual interpetation of the English simple past is less dependent on discourse type.

In the second part of this chapter, I showed how the analysis of aspect in Dutch and English as developed in part II of this thesis can provide an explanation for the differences between Dutch and English in the domain of interclausal temporal ordering. More specifically, I showed that a unified

explanation can be given for the different restrictions on the interpretation of complement clauses and so-called reverse-order sequences in Dutch and English.

7 Final Remarks

7.1. Introduction

The principal question to be answered in this thesis was the following:

> *Given any two consecutive clauses containing a simple past tense in Dutch or in English, how does the reader, or listener, arrive at an understanding of the way the situations presented in these clauses are temporally related to each other?*

In part I of this thesis, I investigated the more general question to what extent the categories of tense, Aktionsart, and aspect determine temporal ordering across sentences in discourse. I argued that the category of aspect, rather than tense (Chapter 2) or Aktionsart (3.2), imposes constraints on interclausal temporal ordering, but it cannot be said to *determine* the temporal intepretation (3.3). In addition to the semantic constraints imposed by aspect, interclausal temporal ordering may be constrained by pragmatic incompatibility (3.4). Often, however, the semantic and pragmatic constraints on temporal ordering discussed in this thesis will not narrow down the number of possible temporal interpretations to one, resulting in temporal indeterminacy. (I will argue in section 7.3 below that this is in fact a welcome result.)

The relevance of grammatical aspect for temporal ordering, even in languages such as Dutch and English that do not systematically mark aspect morphologically, becomes especially clear in contrastive analysis. In part II of this thesis, I investigated to what extent the present perfect (Chapter 4), the English progressive and the Dutch locatives (Chapter 5), and the unmarked past tense (Chapter 6) express perfective and imperfective aspect. The variables of (a) Aktionsart, and (b) discourse type turned out to be crucial for an understanding of aspect in Dutch and English. In the final part of Chapter 6, I showed how my analysis of aspect in Dutch and English in part II, in combination with the findings from part I, accounts for the constrastive data on interclausal temporal ordering first presented in Chapter 1 (section 1.2.2).

In this concluding chapter, I will reflect a little on the research question summarized above and on the answer I have provided to it.[1] The question has two presuppositions that have turned out to be problematic. First, one may wonder when two clauses count as "consecutive clauses" and, moreover, whether it is realistic to study discourse as if it were made up of pairs of clauses (7.2). Second, the question *how* the reader arrives at an understanding of interclausal temporal relations presupposes *that* he arrives at such an understanding and we should allow for the possibility that he does not always do so (7.3). After a discussion of these two issues, I will show how my main conclusions are corroborated by the explicitly contrastive approach taken in this thesis (7.4). In the final section, I will discuss some unresolved problems and suggest a possible way of addressing them in future research (7.5).

7.2. Consecutive clauses and discourse type

The concept of *two consecutive clauses*, as used in the question given at the outset of this chapter, poses some problems that have not been explicitly addressed in this thesis. Determining what pair of clauses counts as consecutive may seem relatively straightforward when dealing with written discourse or, irrespective of discourse mode, with complex sentences such as those consisting of a matrix and a complement clause. But to understand the temporal interpretation of even such "simple" cases, it is often necessary to take into consideration more context than just the immediately preceding clause. This was evidenced, for instance, by the so-called backshifted reading of an embedded imperfective past (see 2.2.2 and 6.4.1), as in (1).

(1) John was not at the meeting last week. When I saw him yesterday, *he told me that he was sick.*

One possible reading of (1) is that John was sick at the time of last week's meeting rather than when I saw him yesterday.

The category of perfective past may likewise present a situation that has to be linked to a situation presented earlier in the discourse. This phenomenon can be illustrated by the cases of embedded narrative discussed in section 6.4.3, as well as by a fragment such as the one given in (2).

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[1] The structure of this book is somewhat unconvential in the sense that readers who are interested in reading a summary of the entire analysis proposed in this study, do better in reading Chapter 1 (especially section 1.4. and 1.5.) than Chapter 7.

(2) Suddenly, a weird sound could be heard. *John opened the door to check the hallway and Mary looked out of the window* to see if there was someone in the garden.

The italicized clauses each present a situation that is triggered by the situation presented in the first sentence. Pragmatic incompatibility of causes and consequences orders both situations after the (starting point of the) causing event (3.4.2.2), but the temporal ordering of the two situations themselves may be left undetermined (see 3.4.2.1 and 7.3 below).

Sometimes, situations have to be linked to a time or situation that is not presented explicitly at all (cf. esp. Molendijk 1993, 1996); this is, for instance, the case for imperfectives that are used to express simultaneity with an inferred point of perspective (see especially 3.3.3.2), as in the second sentence of (3).

(3) He entered the room. It was pitch dark around him.

But also in sentences such as (1) the situation which provides the time of reference for the interpretation of the imperfective need not be mentioned explicitly; it is a sufficient condition for the use of an imperfective that the reference time is identifiable. (If John's absence at last week's meeting was rather significant and had been on our minds all week, it may in fact suffice to shout out *he was sick!* without any further introduction.) All these interpretations are compatible with the semantics of the tense and aspect forms used, but clearly none of these forms tells us anything about *interclausal* temporal ordering.

The notion of interclausal temporal ordering gets especially problematic when the concept of conversational discourse is introduced into studies dealing with temporal ordering. In this thesis, I did so when discussing the kind of context that Caenepeel & Moens (1994) argue to be a necessary one for the reverse-order interpretation of such sequences as (4) (see 6.5.2).

(4) John fell. Max pushed him.

The relevant interpretation arises if the second sentence is interpreted as providing the cause of the situation in the first sentence. A hearer will present cause and effect in such an opposite order if, for instance, the situation of John falling (the effect) is more important for the purpose of the conversation than the causing event. The speaker will also choose this form of reporting if the hearer, after processing the first sentence, makes clear that he is in need of an explanation of why the situation occurred. Now, the hearer may do this either explicitly, as in (5), or simply by raising his eyebrows, but in either case it may be questioned

whether the utterances *John fell* and *Max pushed him* present two *consecutive* utterances.

(5) A: John fell.
B: How come?
A: Max pushed him.

If, in order to account for cases such as (3), the concept of interclausal temporal ordering is generalized to include conversational discourse such as (5), then we can no longer exclude the possibility of reverse-order readings, without explicit marking by a past perfect, arising in narrative discourse either. Indeed, narrative discourse is not necessarily *monologic* discourse, as conversation analysts like Goodwin (1986) have amply shown. Suppose, for instance, that the situation of John's falling in the first clause of (3) is part of a chain of iconically ordered situations. At this point, the hearer may interrupt the story by expressing amazement, as in (6), or in fact by explicitly asking for the cause of John's falling (as in (5)).

(6) A: and then John fell.
B: Huh?
A: He was pushed by Max.
B: I see.

The conversation in (6) shows that it is not a necessary condition for a reverse-order reading to occur that *both* clauses in (4) are non-narrative, as Caenepeel & Moens have argued; in actual conversations, people do not have a problem with switching between narrative and non-narrative discourse. In fact, I think we should even allow for the possibility that *both* sentences in (4) (and both of A's utterances in (5) and (6)) can be narrative and yet allow for a reverse-order reading. This can be illustrated by (7), which provides one of the possible renderings of English (6) into Dutch.

(7)	A:	en	toen	viel	John.
		and	then	fell	John
	B:	Huh?			
		huh			
	A:	Ja,	Max	duwde	'm.
		yes,	Max	pushed	him
	B:	Aha.			
		I see			

In (7), speaker A can use an unmarked past to present the cause of John's falling in his second utterance. This illustrates that he does not have to switch to the non-narrative mode, where Dutch would use a present perfect (see section 4.4.3), or to use a past perfect, in order for the situation of Max's pushing to be understood as preceding John's falling. Dutch (7), therefore, suggests that the second utterance of A in English (6) is not necessarily non-narrative either.

It could perhaps be argued that the situations of John's falling and Max's pushing in (5)-(7) are not presented in "consecutive clauses" and that, therefore, the rules for interclausal temporal ordering do not apply to them. The problem is that the context needed to account for the reverse-order reading of English (4) is that of a dialogue of the sort exemplified in (5) - irrespective of the question whether or not the hearer verbalizes his question (Schegloff 1982) - and that dialogues are more flexible in switching between narrative and non-narrative discourse and, possibly, even in allowing for reverse-order readings *within* the narrative mode of conversation than is suggested by Caenepeel & Moens (1994) and by my own treatment of the issue in section 6.5.

The discussion in this section makes clear that, above all, more research is needed to determine the (non)occurrence of reverse-order presentation accross different discourse types; a more finegrained distinction of discourse-types than the one used in this study is clearly called for.[2]

7.3. Temporal indeterminacy

The question of *how* hearers/readers interpret temporal relations presupposes *that* they always do, but this does not seem to be the case. It is an advantage of the analysis proposed in this study not only that it leaves ample room for such

[2] Even more than other areas of temporal ordering, the issue of reverse-order presentation calls for corpus-linguistic research of actual data; for Dutch, this is currently being carried out by Birgit Bekker at Tilburg University.

indeterminacy but also that it can predict when it may occur. Temporal indeterminacy arises when the semantic and pragmatic constraints on temporal ordering as proposed in this thesis do not narrow down the number of possible temporal orderings to one. This may be either (a) because we need further context to decide on interclausal temporal ordering, or (b) because the temporal ordering is irrelevant to arrive at a coherent interpretation. Let me illustrate both types of temporal indeterminacy.

Examples of the first type of temporal indeterminacy include (8) and (9).

(8) John fell. Max pushed him.

(9) Toen Jan binnenkwam, schreef Marie een brief.
when Jan entered wrote Marie a letter
'When Jan entered, Marie wrote/was writing a letter.'

Without further context, or intonation, we cannot tell whether (8) presents a narrative sequence of iconically ordered situations (Max pushed John when John was lying on the floor) or whether it is an instance of reverse-order presentation (Max pushed John, causing John to fall). Both readings are semantically compatible with (8) and, in addition, there is no general pragmatic incompatibility of situations such as people entering rooms and other people writing letters. Likewise, on the basis of the information provided in (9), we do not know whether Mary was in the middle of writing a letter when John entered the room, or whether she started writing after (and in response to) John's entrance (see especially 5.5.5.3 for discussion); neither aspectuality, nor pragmatic incompatibility rules out one or the other reading. However, (8) and (9) are ambiguous rather than vague; in a given case, further context will decide which reading was intended.

A quite different type of temporal indeterminacy is illustrated in (2), repeated here as (10), and in (11).

(10) Suddenly, a weird sound could be heard. *John opened the door to check the hallway and Mary looked out of the window* to see if there was someone in the garden.

(11) What did you do yesterday? Well, I went shopping, I visited my mother, I cooked risotto, I wachted some television, and I had that breakfast meeting with John of course.

Just as in (8) and (9), applying the semantic and pragmatic constraints discussed in this thesis to (10) and (11) does not result in a single temporal interpretation. The two situations presented in the italicized clauses of (10) are pragmatically

compatible; they may, therefore, have happened simultaneously, but (10) is also compatible with a reading in which Mary looked out of the window slightly before or after John opened the door. The only thing we know is that both situations happened in response to (and thus after) a weird sound was heard (see 3.4.2.2 on causality and compatibility).

The situations presented in (11) all took place within the interval denoted by *yesterday*; in addition, we can say that pragmatic incompatibility rules out a reading in which I did all these things at the same time. However, the information provided by (11) does not impose an order on the situations (the coherence relation would be labeled as *list*), so that, in actual fact, I probably had breakfast before cooking risotto and I would not be lying when uttering (11) if I had visited by mother before I went shopping.[3]

The difference between the kind of temporal indeterminacy in (10) and (11) as compared to that in (8) and (9) is that further context will not help us much in determining how the situations in (10) and (11) are temporally related (unless, of course, the surrounding context explicitly provides information about that). Rather, in (10) and (11), the temporal ordering is irrelevant altogether to establish a coherent representation of the meaning of the text; when explicitly asked about them, readers simply cannot tell how exactly these situations are temporally related and even the most sophisticated model of temporal interpretation *should not* predict one or the other temporal interpretation in such cases.

7.4. The contrastive viewpoint

After discussing some problematic aspects of the leading research question of this thesis, I will now turn to a brief discussion of the answer to it. (An elaborate summary of my answer can be found in Chapter 1, esp. sections 1.4 and 1.5.) In this section, I will relate the basic findings of my research to the contrastive viewpoint. In the following section, I will present some problems that have remained unsolved.

In this thesis, the relationship between aspect and temporal ordering was approached from a cross-linguistic or rather, more specifically, from a contrastive viewpoint. I believe the explicitly contrastive approach taken here to have been particularly fruitful. This can be illustrated by the following five points, which

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[3] Such a (non-narrative) list of situations will be presented by means of present perfect forms in Dutch (4.4.3). If an unmarked past is used, then the sequence is interpreted as a narrative one and, therefore, there is a much stronger pressure to interpret the situations as having happened in the order in which they are presented (6.3.4).

constitute five basic claims of this thesis and which all five have been substantiated by contrastive analysis.

1. Interclausal temporal ordering is not determined exclusively by lexical content and pragmatic incompatibility. When focusing on one language - in particular if this concerns a language such as Dutch which does not systematically encode grammatical aspect - it is tempting to conclude that temporal ordering in discourse, in the absence of explicit markers such as adverbials, is determined entirely by context and world knowledge (Boogaart 1991b). However, when comparing data from different languages, as in (12) and (13), it becomes clear that this cannot be the whole story.

(12) a. John said that she read a book.
b. Hij zei dat ze een boek las.
he said that she a book read

(13) a. John fell. Max pushed him.
b. John viel. Max duwde 'm.
John fell Max pushed him

Thus, there is no pragmatic motivation for the fact that John in (12)a could not be making a claim about Mary's activities at the moment of his speaking; indeed, Dutch (12)b is compatible with such a reading. Rather, the simultaneity reading in (12)a is semantically incompatible with the perfective nature of the English simple past when it presents an event (6.3.3). Likewise, we may assume that speakers of Dutch and English share their world knowledge about possible causal relationships between such situations as those presented in (13)a and (13)b. Nonetheless, Dutch (13)b does not allow for a reverse-order reading as easily as English (13)a does. In section 6.3.4, I argued that this can be explained by the fact that the Dutch unmarked past tense is not used as a perfective past in non-narrative contexts; I followed Caenepeel & Moens (1994) in assuming that such a non-narrative context is a necessary condition for a reverse-order reading (see, however, 7.2 above).

Such contrastive findings illustrate the role of grammatical aspect, even in languages such as Dutch and English where grammatical aspect is often invisible (see Chapter 6, and especially 6.2 for discussion; see also the following point).

2. Aspect rather than Aktionsart imposes constraints on interclausal temporal ordering. To the extent that aspectuality constrains temporal ordering, it is grammatical aspect rather than Aktionsart which is responsible for this (see especially section 3.3). In several respects, what I have said in this thesis about

the interpretation of perfective and imperfective aspect is similar to what has been claimed in the literature to hold for events and states, respectively. To the extent that this is not just a terminological debate (cf. 3.1), it seems to be caused by the exclusive focus on English in many, and especially in formal-semantic, accounts of aspectuality. In English, the Aktionsart distinction between events and states happens to coincide more or less completely with the distinction between perfective and imperfective aspect; precisely in those cases in which lexical content is insufficient to predict (unmarked) grammatical aspect (5.5.3.1), use of the progressive is obligatory for the expression of imperfective aspect (6.3.3). Contrastive analysis with a language such as Dutch makes clear that grammatical aspect is crucial even if it is invisible (see esp. 3.3.1). An account of temporal ordering in terms of aspect such as the one proposed in this thesis is therefore more general and more explanatory than an account in terms of Aktionsart.

3. The distinction between narrative and non-narrative discourse is crucial for an understanding of the use and interpretation of tense and aspect. Whether or not they make it explicit, many studies dealing with interclausal temporal ordering restrict their discussion to cases of written narrative discourse. (Given the problems that arise when including other genres, as discussed in section 7.2, it may well be considered a sensible move to at least start here.) If, in addition, the analysis focuses on one particular language, this may give rise to unwarranted generalizations.

For instance, the fact that in English one can use a simple past both in narrative sequences and to present a definite situation from the past in non-narrative discourse (*I didn't turn off the stove*), has resulted in proposals to treat both phenomena as following from the same semantic property, namely "definiteness" or "anaphoric temporal reference". Interestingly, the same parameter has been proposed to explain the distribution of the unmarked past in Dutch. However, when explicitly contrasting the use of tense in both languages, it becomes clear that it is impossible to maintain both the claim about English and the one about Dutch. Most importantly, Dutch uses an unmarked past *in narrative discourse*, but it often uses a present perfect rather than an unmarked past to present a "definite" situation *in non-narrative discourse*. This suggests that these phenomena cannot, and should not, be given a unified explanation.

In my view, neither of them should be described in terms of anaphoric reference. There is nothing inherently "definite" or "anaphoric" about the category of tense *per se* (cf. De Mulder, Tasmowski-De Ryck & Vetters 1996: iv). The linking that goes on in narrative discourse is a property of the narrative discourse type, not of the category of tense (2.3.3). The definite interpretation of the English simple past in non-narrative discourse, which is also attested for the present

perfect in Dutch, seems to follow from a pragmatic inference rather than to constitute part of the meaning of these forms (2.3.2). An important reason for not using the term "temporal anaphor" for either of these cases is that this would deprive us of a powerful tool with which to describe the semantics of imperfectives: they *are* semantically anaphoric in the sense that they systematically need an independently provided reference time (2.3.4).

4. The past tense receives an independent interpretation when embedded under another past tense, and in reverse-order sequences. Once it has been established that, in addition to aspect (4.4.1), the distinction between narrative and non-narrative discourse is important to the understanding of the distribution of unmarked past and present perfect in Dutch (4.4.2), the Dutch data can, in turn, be used to analyse data from English where it is less obvious that discourse type is an important factor. Thus, at several points in this thesis, I used data from Dutch in order to argue in favour of a certain analysis of English. Specifically, I claimed that the Dutch data substantiate (a) the absolute analysis of past tenses embedded under a past tense in English (most recently argued for by Salkie & Reed 1997), and (b) the non-narrative analysis of the reverse-order phenomenon (Caenepeel & Moens 1994).

In 6.4.2, I claimed that, in non-narrative discourse, English (14)a is equivalent to Dutch (14)b, which clearly signals independent linking to the moment of utterance (S).

(14) a. He told me that he wrote a letter.
b. Hij vertelde me dat hij een brief heeft geschreven.

To express (perfective) past *relative to the time of the matrix* (S') both languages arguably have to use a past perfect in the embedded clause (see 6.4 for the full analysis).

As for the reverse-order phenomenon, Caenepeel & Moens's claim that English (15)a allows for a reverse-order reading exclusively in non-narrative discourse is in accordance with the fact that Dutch (15)b allows for such a reverse-order reading whereas Dutch (15)c does not, or only with great difficulty (see, however, 7.2).

(15) a. John fell. Max pushed him.
b. John is gevallen. Max heeft hem geduwd.
c. John viel. Max duwde hem.

This substantiates Caenepeel & Moens's claim because Dutch uses a present perfect to express perfective past in non-narrative discourse (as in (15)b) and an unmarked past to express perfective past in narrative discourse (as in (15)c).

5. The study of language-specific oppositions is indispensable for an understanding of the use and interpretation of tense/aspect forms. Somewhat paradoxically perhaps, the contrastive analysis carried out in this thesis brings out the importance of taking into account the position a formal category occupies within a language-specific system of oppositions; this traditional structuralist viewpoint is basically what motivated the design of the tables that I provided throughout part II of this thesis (cf., in particular, Jespersen's 1924 approach to tense). This may sound like stating the obvious, but contemporary studies of tense and aspect hardly ever acknowledge it or, at any rate, do not practice it (see Bickel 1996 and Michaelis 1998 for notable recent exceptions).[4]

On the one hand, I argued in favour of defining the semantics of a given formal category in such general terms that it captures all interpretations that are compatible with it. On the other hand, I emphasized the shortcomings of such definitions in explaining (a) the distributional properties of a given category, and (b) cross-linguistic differences. For instance, it is true that the unmarked past in both Dutch and English expresses precedence with respect to a deictic centre (Chapter 2) and it is equally true that the present perfect in both languages links a situation from the past to the state holding at the moment of utterance (Chapter 4). However, in many instances, the use and interpretation of one of these forms is not incompatible with its semantics, and yet it can be used in one language, but not in the other. Therefore, semantic *in*compatibility is potentially much more interesting from a linguistic viewpoint than compatibility is.[5]

In order to account for such cross-linguistic differences, which, in turn, can teach us a lot about language-specific distributional patterns, it is necessary to look at alternative means of expression that are available to the language user. Specifically, using a particular form may mean *not* using another form that is available, and such choices systematically determine the resulting interpretation. Not surprisingly, this turned out to be particularly relevant for the use of unmarked forms when marked forms are available. The latter phenomenon, which

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[4] It seems to me that the approach to tense advocated by Michaelis (1998) is very close to my own; however, Michaelis's study appeared in print when the manuscript of my thesis was nearly finished and I have regrettably not been able to integrate her findings on English into my analysis.

[5] The same is true of pragmatic (in)compatibility as discussed in 3.4. The focus on semantic and pragmatic *in*compatibility reflects a view of interpretation as a "constraint satisfaction process" (Verhagen 1997).

I labeled *grammaticalization of zero* (following Bybee 1994 in terminology and Bickel 1996 in spirit), enabled me to solve the paradox of systematically different aspectual interpretations arising for the aspectually unmarked past tense of Dutch and English.

7.5. Aspect and modality

Let me finally turn to a puzzle that has not been satisfactorily solved in this thesis. In Chapter 1, it was noted that the Dutch unmarked past allows for a posterior reading in complement clauses, as in (16)a. In fact, such a reading, in which the leaving is to be situated after the saying, is the most easily available interpretation for this sentence.

(16) a. John zei dat Marie wegging.
John said that Marie left
'John said that Marie was leaving.'
b. John said that Marie left.

English (16)b, however, is preferably interpreted such that Marie had already left when John told us about it. The latter, so-called backshifted reading of embedded eventive clauses in English was amply discussed in this thesis; it follows from the perfective interpretation of the simple past, ruling out a simultaneous reading (2.2.2.3), and a pragmatic inference, ruling out the forward shifted reading (2.2.2.4).

However, the posterior reading of Dutch (16)a, which should be distinguished from a forward shifted reading (2.2.2.4), is somewhat harder to explain. It does seem related to the fact that the Dutch unmarked past allows for an imperfective reading; indeed, an embedded progressive in English, as in (17), allows for the same "future in the past" reading (5.4.2.4).

(17) John said that Mary was leaving.

The present tense equivalents of English (16)a and Dutch (16)b show a similar contrast, see (18).

(18) a. Marie gaat weg.
Marie leaves
b. ? Mary leaves.
c. Mary is leaving.

Thus, Dutch (18)a can be used to refer to an event of leaving to be situated in the future with respect to S, which is only marginally possible for English (18)b. Just as in (17), English can use a progressive, as in (18)c, to present such a situation. Again, this suggests that the difference is related to the perfective and imperfective nature of the English unmarked tense (in eventive clauses) and the Dutch unmarked tense, respectively.

There are, however, at least two problems with simply assuming that imperfectives can be used to refer to future time. First, it is not immediately obvious in what way the future reading is compatible with the semantics of imperfective aspect: what constitutes the time of reference at which the situation is holding in sentences such as (16)a, (17), (18)a and (18)c?

Second, states are standardly interpreted as imperfective, in English as well as in Dutch, and yet they are incompatible with future readings in English, see (19)a.

(19) a. He said that he was sick.

b. Hij zei dat hij de volgende dag verhinderd was.
He said that he the following day detained was
'He said that he would not be able to be there the next day.'

In Dutch, such a future-in-the-past reading is not excluded for states (see (19)b), but if states are imperfective and imperfectivity is crucial to explaining the future reading of, for instance, (16)a and (18)a, then one would expect this reading to be available at least as easily for states as for events, and it very clearly is not.

It seems that in order to account for all data, our analysis needs to be supplemented at least with an analysis of the way future time is expressed in Dutch and English; the marking of future, both with respect to S and with respect to S', seems to be obligatory in English but not in Dutch. However, even if such an analysis were available, we still need to explain the fact that imperfectives, especially if they present events rather than states, are compatible with future readings in both Dutch and English. Interestingly, this phenomenon seems to be part of a much more general connection between imperfective aspect and modal, subjective or counterfactual information (see especially Fleischman 1995).

The use of the past tense to express such non-temporal values as irrealis has been documented for many languages, including Dutch and English; it makes it necessary to assume that the distance with respect to the deictic centre as expressed by the past tense (Chapter 2) need not necessarily be temporal in nature. However, there seems to be a potentially more interesting connection between imperfective aspect, rather than the general category of past tense, and modality. For instance, the English simple past is compatible with counterfactual

readings in (imperfective) state clauses such as (20)a, but incompatible with such readings in (perfective) event clauses such as (20)b (Iatridou 1998).

(20) a. I wish I owned that car.
b. ? I wish I read that book.

Given that the simple past in (20)a is arguably a disguised subjunctive (*I wish I were a rich man*), the phenomenon in (20) fits in with the observation that some languages have subjunctive counterparts of imperfectives but not of perfectives (see, for instance, Vogel 1997: 186 on Italian); the reverse situation does, as far as I know, not occur.[6]

The pairing of imperfective aspect and counterfactuality can be further demonstrated by means of the sentences in (21).

(21) a. I wish I was/were reading that book.
b. I wish I had read that book.
c. Ik wou dat ik dat boek las.
I wanted that I that book read
'I wish I was/were reading that book.'

Contrary to (21)b, containing a perfective simple past, (21)a, containing an imperfective progressive, is felicitous (cf. Portner's 1998 claim that the progressive should be analysed in terms of modal semantics). This is equally true of the past perfect in (21)b, which presents an imperfective state holding in the past. Also, while the Dutch unmarked past is compatible with both perfective and imperfective readings, the only possible counterfactual reading of Dutch (21)c is one in which the simple past receives an imperfective reading (and is thus equivalent to the progressive in (21)a). Given that perfective past in Dutch is expressed, outside narrative contexts, by the present perfect (4.4.3), English (20)b should be rendered in Dutch by means of (22). And indeed, intuitions about Dutch (22) are similar to those about English (20)b.

(22) ? Ik wou dat ik dat boek gelezen heb.
I wanted that I that book read have
'I wish I read (have read) that book.'

[6] A further possibly related phenomenon concerns the role of aspectuality in deciding between epistemic and deontic readings of modal auxiliaries; cf. *He must read that book* (deontic) and *he must be reading that book* (epistemic); cf. Coates (1983) for English, and Barbiers (1996) for Dutch.

The availability of future and counterfactual readings for imperfectives seems, furthermore, connected to the capacity of imperfective forms to present situations as holding at a point of perspective, discussed in 3.3.3.1, which automatically lends such clauses a certain subjective flavour (cf. Caenepeel's 1989 claim that all stative clauses in English present "perspectivized" information; see also Landeweerd 1998 and De Jong-Van den Berg in prep. on the French *imparfait*). More generally, the whole spectrum of "modal" readings associated with imperfectives can perhaps be explained by the fact that imperfectives anaphorically link situations to a point in time (see esp. section 2.3.4) which may function as point of evaluation for the truth-conditional content of the clause; in the semantics of perfective aspect such a point of evaluation is not present. A similar claim is made by Caenepeel (1989) and Sandström (1993) to explain why stative clauses in English are often subjective in the sense that the situation is presented from a particular perspective. It seems to constitute an interesting hypothesis to be tested in future research that this is a property of the more general category of imperfective aspect, rather than of states, and that it can be invoked to explain a whole range of other findings on imperfectives including their compatibility with counterfactual and future readings exemplified above.[7]

7.6. To conclude

There are, of course, other ways in which this study may be used as a starting point for future research. An obvious example is constituted by the question in what way the detailed contrastive analysis of tense and aspect in Dutch and English, as presented in part II of this study, can be put to practical use for the purpose of second language teaching.

Furthermore, the focus of the investigation has been on the *semantic* constraints on temporal ordering, as imposed by tense and aspectuality, rather than on *pragmatic* contraints. More specifically, I have been using the notion of "pragmatic incompatibility" to cover various non-semantic constraints on temporal interpretation that are arguably qualitatively different, namely world knowledge, discourse type, and Gricean reasoning (see especially section 3.4). It will be

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[7] A better understanding of the way in which languages such as Dutch and English, which may be taken to lack a grammaticalized verbal category of mood (such as a *subjunctive*), express modality also seems to be a precondition for solving "Abusch's Problem" (Salkie & Reed 1997), i.e. to account for the use of the past tense in the most embedded clause of sentences such as *John decided a week ago that in ten days at breakfast he would say to his mother that they were having their last meal together* (Abusch 1994: 2). My absolute analysis of past-under-past (see 2.2.2.2) does not as such provide an explanation for the interpretation of this past tense (cf. Chapter 2, fn.24).

worthwhile to try and determine more precisely the individual contribution of each of these, and possible interactions among them and among the pragmatic and semantic constraints.

Within the domain of linguistic theory, some readers may feel that this study would have benefited from incorporating its results in one or other formal linguistic model of his or her choice. Readers from the other end of the linguistic spectrum probably feel that what is really needed is to define the results of this study in such a way that they can be empirically tested in corpora of actual language data. Although I have not explicitly addressed debates within the frameworks of formal linguistics and corpus-based linguistics in this study, I believe the results may serve as a helpful tool in deciding *what* to formalize and *what* to look for in corpus-linguistic research; in any case, I do not consider the results of thesis to be incompatible with either approach.

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Samenvatting

Aspect en temporele ordening:
Een contrastieve analyse van het Engels en het Nederlands

In dit boek staat de vraag centraal hoe Engels- en Nederlandstaligen het temporeel verband tussen de situaties van twee opeenvolgende zinnen begrijpen. In het bijzonder stel ik me hierbij de vraag in hoeverre de interpretatie van temporele relaties over de zinsgrens heen, ofwel interclausale temporele relaties, wordt bepaald door de betekenis van de werkwoordstijden, met name de betekenis van de onvoltooid verleden tijd.

Hoofdstuk 1 laat zien welke verschijnselen ik wil verklaren; het gaat vooral om verschillen tussen het Engels en het Nederlands. Verder geeft dit hoofdstuk een breed overzicht van de analyse die ik in de volgende hoofdstukken uitwerk. Omdat in mijn analyse de notie *compatibiliteit* een belangrijke rol speelt, wordt die in hoofdstuk 1 geïntroduceerd: de interpretatie van een zin moet compatibel zijn met de betekenis van de taalelementen die in de betrokken zin optreden (*semantische compatibiliteit*) en daarnaast met de niet specifiek linguïstische kennis over taalgebruikers, de context, en "de wereld" (*pragmatische compatibiliteit*). Voor de centrale vraagstelling betekent dit uitgangspunt dat ik vooral aandacht heb voor semantische restricties op temporele ordening, meer bepaald voor temporele interpretaties die op grond van de betekenis van het vervoegde werkwoord kunnen worden uitgesloten.

Dit boek bestaat uit twee delen. In deel I laat ik zien in hoeverre de werkwoordscategorieën tempus (Hoofdstuk 2) en aspect (Hoofdstuk 3) beperkingen opleggen aan mogelijke temporele interpretaties. Het onderscheid tussen perfectief en imperfectief aspect blijkt de belangrijkste rol te spelen bij het bepalen van temporele ordening. In deel II ga ik na hoe de grammaticale categorieën perfectief en imperfectief aspect tot uitdrukking komen in het werkwoordssysteem van het Engels en het Nederlands, en in hoeverre de verschillen tussen het Engels en het Nederlands op het gebied van interclausale temporele ordening verklaard kunnen worden in termen van aspect.

Deel I: Tempus, aspectualiteit, en temporele ordening

Hoofdstuk 2 gaat over de bijdrage die de categorie tempus levert aan het bepalen van temporele relaties. De tijden van het werkwoord (verleden, tegenwoordig, toekomend) drukken uit of een situatie voorafgaat aan het spreekmoment, ermee samenvalt, of erop volgt. Dit is de zogenaamde deiktische dimensie van tempora. Als opeenvolgende zinnen dezelfde werkwoordstijd bevatten, biedt de deiktische dimensie van de werkwoordstijden geen informatie over de temporele relatie *tussen* de zinnen. Hoofdstuk 2 is dan ook vooral bedoeld als een kritische bespreking van voorstellen die wel een dergelijke relatie aannemen tussen tempus en interclausale temporele ordening. Er zijn twee belangrijke soorten voorstellen waarin de categorie tempus ten onrechte een dergelijke rol krijgt toebedeeld.

Consecutio temporum. In de eerste plaats wordt vrij algemeen aangenomen, recent bijvoorbeeld door Ogihara (1995) en Abusch (1997), dat de categorie tempus in complementzinnen van indirecte rede informatie biedt over de temporele ordening tussen de situatie in de ingebedde zin en de situatie in de inbeddende zin. In complementzinnen zou de deiktische dimensie van tempus niet geïnterpreteerd worden met betrekking tot het spreekmoment S (absoluut), maar met betrekking tot de tijd van de inbeddende zin S' (relatief). De relatieve analyse van ingebedde tempora maakt het noodzakelijk om aan te nemen dat er een regel als consecutio temporum (*sequence of tenses*) bestaat: een verleden tijd kan semantisch een tegenwoordige tijd zijn die door consecutio temporum in het Nederlands en het Engels aan de oppervlakte verschijnt als een verleden tijd. Dat is nodig omdat de relatieve analyse anders geen verklaring kan geven voor ingebedde verleden tijden die worden geïnterpreteerd als gelijktijdig met de tijd van de matrixzin, als in *Jan zei dat Marie ziek was*. Immers, de ingebedde verleden tijd zou volgens de relatieve analyse voortijdigheid met betrekking tot S' (*Jan zei*) moeten uitdrukken.

Ik betoog echter dat verleden tijden die ingebed zijn onder een verleden tijd in het Nederlands en het Engels een absolute interpretatie krijgen, dus voortijdigheid uitdrukken ten opzichte van S in plaats van S' (vgl. Salkie & Reed 1997). Een absolute analyse van ingebedde verleden tijden heeft als belangrijk voordeel dat de categorie verleden tijd in deze analyse een constante betekenis heeft, die onafhankelijk is van syntactische omgeving. Het betekent echter wel dat een alternatieve verklaring nodig is voor twee belangrijke restricties op de mogelijke interpretatie van complementzinnen in indirecte rede:

I. Soms kan de ingebedde verleden tijd niet geïnterpreteerd worden als gelijktijdig met de tijd van de matrixzin, zoals in de Engelse zin *John told me that he read that book* ('Jan vertelde me dat hij dat boek las'), of in de Nederlandse zin *Jan vertelde me dat hij dat boek gelezen heeft.*
II. Een ingebedde verleden tijd kan moeilijk verwijzen naar een tijdstip dat na de matrixtijd ligt - een *forward shifted* lezing - terwijl die lezing compatibel is met een absolute analyse van de verleden tijd.

De eerste restrictie verklaar ik als een kwestie van aspect; deze volgt uit de perfectieve interpretatie van de ingebedde tempusvorm (semantische incompatibiliteit). De tweede restrictie volgt uit het feit dat de keuze voor indirecte rede de spreker verplicht tot het betrouwbaar weergeven van de uiting van de oorspronkelijke spreker (pragmatische incompatibiliteit). Geen van beide restricties dient dus toegeschreven te worden aan de categorie tempus.

Temporele anaforen. Een tweede type voorstellen dat een relatie aanneemt tussen tempus en interclausale temporele ordening is de zogenaamde anaforische opvatting van tempus, die voor het eerst te vinden is bij McCawley (1971) en Partee (1973), maar feitelijk teruggaat op Reichenbach (1947). In deze opvatting drukt tempus naast een deiktische dimensie, dus de relatie met het spreekmoment, ook altijd een anaforische dimensie uit. Dit betekent dat een situatie gekoppeld dient te worden aan een referentiepunt, een antecedent, dat door de omringende context of de situatie wordt geleverd, of althans daaruit kan worden afgeleid. In de recente literatuur wordt de anaforische opvatting van tempus gebruikt om tenminste drie uiteenlopende verschijnselen te verklaren, namelijk:

I. De definiete interpretatie van de verleden tijd in niet-narratief taalgebruik.
II. De coherentie van opeenvolgende zinnen in narratieve teksten.
III. De interpretatie van imperfectief aspect.

Ik betoog dat de verschijnselen in I-III zodanig verschillend zijn dat het geen zin heeft om de notie "temporele anafoor" op alle drie toe te passen. Voor het doel van mijn onderzoek is alleen de laatste opvatting van temporele anafoor zinvol, waarin uitsluitend aan imperfectieve vormen, en niet aan de categorie tempus als zodanig, een anaforische dimensie wordt toegekend. De anaforische analyse van imperfectief aspect, die met name populair is in onderzoek naar Romaanse talen (zie Berthonneau & Kleiber 1993 en referenties aldaar), heeft voor het Engels en het Nederlands natuurlijk alleen zin als we weten welke tempora van het Nederlands en het Engels imperfectief aspect uitdrukken; die vraag beantwoord ik in deel II van dit boek.

In **hoofdstuk 3** ga ik eerst na in hoeverre aspectualiteit is te beschouwen als een semantische restrictie op interclausale temporele ordening. De term *aspectualiteit* is een overkoepelende term voor grammaticaal aspect en lexicaal aspect, ofwel *Aktionsart*. In de literatuur worden de meeste voorstellen voor het bepalen van temporele relaties in teksten geformuleerd in termen van Aktionsart, dat wil zeggen het onderscheid tussen zinnen die een *event* (gebeurtenis) presenteren of een *state* (toestand). *Events* worden als opeenvolgend geïnterpreteerd, terwijl *states* veelal overlappen met elkaar en met *events* die in de omringende context worden gepresenteerd. Ik bespreek met name de voorstellen die gedaan zijn in het kader van de *Discourse Representation Theory* (Partee 1984; Hinrichs 1986; Kamp & Reyle 1993). Vier belangrijke problemen van dit type voorstellen die aan bod komen, zijn:

I. Het gebruik van de Vendler classificatie van Aktionsart (*states, activities, accomplishents, achievements*).
II. Het gebruik van de notie referentiepunt.
III. De veronachtzaming van grammaticaal aspect.
IV. De onvoldoende aandacht voor de rol van genre en wereldkennis.

De eerste twee problemen zijn, in zoverre ze niet slecht terminologisch van aard waren, intussen opgelost in alternatieve voorstellen, met name dat van Moens (1987). De laatste twee laten zien dat het niet mogelijk is een directe relatie aan te nemen tussen Aktionsart en interclausale temporele ordening.

Grammaticaal aspect. Contrastief onderzoek van het Engels en het Nederlands toont aan dat grammaticaal aspect, en niet Aktionsart, beperkingen oplegt aan temporele interpretatie. Als *events* in het Engels incompatibel zijn met gelijktijdigheidslezingen komt dat niet (alleen) omdat zo'n zin een *event* presenteert, maar veeleer omdat de Engelse simple past systematisch perfectief is in *event*-zinnen (zie hoofdstuk 6), als gevolg van de grammaticalisatie van de progressive (zie hoofdstuk 5). De Nederlandse verleden tijd is niet noodzakelijk perfectief en laat dus wel een gelijktijdigheidslezing toe in *event* zinnen.

Hoewel de categorie aspect, meer dan Aktionsart, een aanwijzing biedt voor interclausale temporele ordening, is de relatie tussen aspect en temporele interpretatie ook geen directe. Ik laat zien dat perfectief en imperfectief aspect weliswaar systematisch verschillend worden geïnterpreteerd, maar dat verschillende interclausale temporele relaties compatibel zijn met de semantische karakterisering van deze categorieën. Een belangrijk probleem voor imperfectief aspect is dat deze categorie weliswaar altijd gelijktijdigheid met een referentiepunt uitdrukt, zoals de anaforische opvatting voorspelt, maar dat de semantiek geen enkele beperking oplegt aan waar dat referentiepunt vandaan komt. Dat

referentiepunt kan, bijvoorbeeld, heel goed een geïnfereerd perspectiefpunt zijn dat na een voorafgaande *event* komt (*Hij deed de deur van de koelkast open. De binnenkant was fel verlicht*).

Pragmatische incompatibiliteit. In het laatste deel van hoofdstuk 3 ga ik in op de rol van niet-talige kennis bij het bepalen van temporele ordening. Er zijn verschillende soorten niet-talige kennis die pragmatische restricties kunnen opleggen aan temporele interpretatie:

I. *Genre*. Narratief taalgebruik staat geen interpretatie toe waarin een gebeurtenis temporeel gesitueerd moet worden *voor* een gebeurtenis die in een voorafgaande zin is gepresenteerd, tenzij de spreker/schrijver daar expliciete aanwijzingen voor geeft (Caenepeel & Moens 1994).
II. *Regels voor coöperatief taalgebruik.* Een voorbeeld van deze soort pragmatische incompatibiliteit was het ontbreken van een zogenaamde *forward shifted* lezing voor ingebedde verleden tijden, geïllustreerd in hoofdstuk 2.
III. *Kennis van "de wereld"*. Deze soort pragmatische incompatibiliteit treedt op wanneer de lezer/hoorder op grond van zijn kennis van "de wereld" weet dat twee gebeurtenissen niet tegelijkertijd *kunnen* plaatsvinden.

Ik betoog dat deze laatste vorm van pragmatische incompatibiliteit doorslaggevend is voor de vraag of in verhalende teksten de narratieve tijd opschuift of stilstaat. De notie incompatibiliteit is algemener en heeft daarom een grotere verklarende kracht dan de notie causaliteit die veelal wordt gebruikt in pragmatische analyses van temporele ordening (Caenepeel 1989; Lascarides 1992; Sandström 1993; Moeschler 1993). In mijn visie is causaliteit slechts een specifieke vorm van incompatibiliteit.

Deel II: Aspect in het Engels en het Nederlands

In deel I is gebleken dat, in zoverre talige informatie beperkingen oplegt aan interclausale temporele ordening, dit vooral voor rekening komt van de categorie aspect. Dit levert echter niet automatisch een verklaring op voor de verschijnselen uit hoofdstuk 1, te weten Nederlandse en Engelse zinnen die een onvoltooid verleden tijd bevatten. De Nederlandse en Engelse verleden tijd is namelijk compatibel met perfectieve én met imperfectieve interpretaties. Toch zijn er veel gevallen waarin de vorm ondubbelzinnig als perfectief of imperfectief wordt geïnterpreteerd, en die gevallen zijn niet altijd dezelfde voor het Engels en het Nederlands. Om te begrijpen hoe de aspectuele interpretatie van de

ongemarkeerde vorm tot stand komt, en wanneer die voor het Engels en Nederlands verschilt (Hoofdstuk 6), is het noodzakelijk om eerst te kijken naar alternatieve uitdrukkingen van perfectief en imperfectief aspect die in het Nederlands en Engels voorhanden zijn, namelijk:

I. De voltooid tegenwoordige tijd voor de uitdrukking van perfectief aspect (Hoofdstuk 4).
II. De Engelse *progressive* en enkele locatieve uitdrukkingen in het Nederlands voor de uitdrukking van imperfectief aspect (Hoofdstuk 5).

In **hoofdstuk 4** onderzoek ik in hoeverre de voltooid tegenwoordige tijd in het Engels en het Nederlands uitdrukking geeft aan de semantische notie PERFECTIEF aspect. Het is noodzakelijk een onderscheid te maken tussen de semantische noties VOLTOOID TEGENWOORDIG en PERFECTIEF VERLEDEN, ofwel tussen PERFECTISCH en PERFECTIEF (Boogaart 1994). Het belangrijkste verschil is dat een PERFECTISCHE tegenwoordige tijd, zoals de Engelse *present perfect*, behalve een situatie in het verleden altijd een toestand presenteert die op het spreekmoment geldig is, terwijl een PERFECTIEVE verleden tijd, zoals de Franse *passé simple*, alleen een situatie in het verleden weergeeft. Dit neemt niet weg dat de formele categorie perfectum in veel talen een interpretatie toelaat als PERFECTIEF VERLEDEN tijd. Ik probeer de relatie tussen beide lezingen te verhelderen door een diachroon perspectief in te nemen: VOLTOOID TEGENWOORDIG en PERFECTIEF VERLEDEN zijn te beschouwen als opeenvolgende stappen in een grammaticalisatie-keten die voor perfectum-vormen in vele talen is vastgesteld (Bybee, Perkins & Pagliuca 1994).

Vanuit een synchroon perspectief kan geconcludeerd worden dat het Engelse perfectum slechts een deel van het semantische domein VOLTOOID TEGENWOORDIG bestrijkt en nooit uitdrukking geeft aan PERFECTIEF VERLEDEN. Voor het Nederlandse perfectum stel ik vast dat deze categorie wel compatibel is met een interpretatie als PERFECTIEF VERLEDEN tijd, maar alleen in niet-narratief taalgebruik. De restricties op het gebruik van het perfectum zijn in het Nederlands minder strikt dan in het Engels als het gaat om de toestand die geldig is op het spreekmoment, maar het Nederlandse perfectum is incompatibel met een situatie waarin het spreekmoment helemaal niet beschikbaar is, ofwel "tussen haakjes" staat, zoals in narratief taalgebruik het geval is (Sandström 1993; Caenepeel 1995).

In **hoofdstuk 5** beantwoord ik de vraag in hoeverre de Engelse *progressive* (*he is reading a book*) en een tweetal Nederlandse locatieve uitdrukkingen (*hij is een boek aan het lezen, hij zit een boek te lezen*) gebruikt kunnen worden voor de

uitdrukking van imperfectief aspect. De belangrijkste restricties op het gebruik van de progressive en de locatieven hebben te maken met Aktionsart. De Nederlandse locatieve constructies kunnen niet gebruikt worden met *states*. De Engelse progressive is compatibel met *states* die een zogenaamde *stage-level property* uitdrukken, dat wil zeggen een tijdelijke eigenschap, maar incompatibel met *individual-level* predikaten, dus predikaten die een permanente eigenschap uitdrukken.

Binnen de categorie van *events* zijn er geen beperkingen op het gebruik van de progressive in het Engels, maar wel op het gebruik van de locatieve constructies in het Nederlands. Deze laatste zijn namelijk incompatibel met:

I. Niet-agentieve predikaten,
   tenzij deze "geleidelijke verandering" uitdrukken.
II. Passieve vorm.
III. Habituele interpretaties.
IV. Futurele lezingen.

Nadat ik aldus de vraag beantwoord heb wanneer de progressive en de lokatieven gebruikt *kunnen* worden voor de uitdrukking van imperfectief aspect, ga ik in op de vraag wanneer deze vormen gebruikt *moeten* worden om een imperfectieve interpretatie te krijgen. Zo is het gebruik van de progressive met *stage-level* states in het Engels wel mogelijk, maar geen noodzakelijke voorwaarde voor een imperfectieve interpretatie. Voor alle andere Aktionsarten is het gebruik van de progressive in het Engels wel volledig gegrammaticaliseerd, dat wil zeggen verplicht voor de uitdrukking van imperfectief aspect. In het Nederlands is het gebruik van een locatieve constructie voor de uitdrukking van imperfectief aspect alleen verplicht voor de categorie *achievements*. Voor de categorieën *activities* en *accomplishments* zijn de locatieven, voor zover ze gebruikt kunnen worden, nooit verplicht voor de uitdrukking van imperfectiviteit.

Hoofdstuk 6 is gewijd aan de aspectuele interpretatie van de aspectueel ongemarkeerde verleden tijd in het Nederlands en het Engels. Ik combineer eerst de bevindingen van hoofdstuk 4 en hoofdstuk 5: nu we weten welke gedeelten van de semantische domeinen perfectief en imperfectief aspect worden bestreken door het perfectum en de progressieve en lokatieve constructies, is het mogelijk te bepalen welk semantisch domein er overblijft voor de ongemarkeerde verleden tijd. Op grond van het principe *grammaticalization of zero* (grammaticalisatie van de nul-vorm) (Bybee 1994) is het vervolgens mogelijk vrij precies vast te stellen wanneer de ongemarkeerde vorm perfectief dan wel imperfectief geïnterpreteerd moet worden en wanneer dat voor de Engelse en de Nederlandse vorm verschilt

(cf. Bickel 1996). Daartoe is het wel noodzakelijk de variabelen Aktionsart en genre, waarvan het belang in de voorgaande hoofstukken is gebleken, in de analyse te betrekken.

Zo is in *event* zinnen de Engelse simple past perfectief, terwijl de Nederlandse onvoltooid verleden tijd zowel perfectieve als imperfectieve interpretaties toelaat. Voor de categorie *states* zijn er geen verschillen tussen de Engelse en Nederlandse verleden tijd waar te nemen. De Nederlandse onvoltooid verleden tijd prefereert een imperfectieve lezing in niet-narratief taalgebruik, maar kan zowel perfectief als imperfectief zijn in narratief taalgebruik; de interpretatie van de Engelse simple past is minder afhankelijk van genre.

In het laatste deel van hoofdstuk 6 laat ik zien dat deze analyse van aspect in het Engels en het Nederlands, samen met de analyse uit deel I, juiste voorspellingen doet over interclausale temporele ordening, en over de verschillen tussen het Nederlands en het Engels op dit terrein. In het bijzonder ga ik in op het probleem van de "omgekeerde volgorde" en op de interpretatie van complementzinnen.

Omgekeerde presentatie. In het Engels laten twee opeenvolgende zinnen die een simple past bevatten een interpretatie toe waarin de *event* van de tweede zin feitelijk heeft plaatsgevonden voor de *event* van de eerste zin; in het Nederlands is een dergelijke "omgekeerde" interpretatie voor zinnen met een onvoltooid verleden tijd minder gemakkelijk beschikbaar. Ik verklaar dit uit het feit dat omgekeerde volgorde alleen voorkomt in niet-narratief taalgebruik (Caenepeel & Moens 1994) en dat het Nederlands in dit genre een voltooid tegenwoordige tijd gebruikt voor de uitdrukking van perfectief aspect, zoals bleek in Hoofdstuk 4. Inderdaad blijken twee zinnen met een voltooid tegenwoordige tijd in het Nederlands wel zo'n omgekeerde interpretatie toe te staan. Ik bespreek ook in hoeverre andere combinaties van tempusvormen compatibel zijn met een "omgekeerde" lezing.

Complementzinnen. In het Engels kunnen ingebedde *events* niet geïnterpreteerd worden als gelijktijdig met de tijd van de matrixzin, terwijl dat in het Nederlands wel mogelijk is. Dit is te verklaren uit het feit dat de Engelse simple past perfectief is in *event* zinnen, terwijl de Nederlandse onvoltooid verleden tijd ook in *event* zinnen compatibel is met een imperfectieve lezing. Hoewel de Nederlandse onvoltooid verleden tijd ook compatibel is met een perfectieve lezing, is de specifieke voortijdigheidslezing van ingebedde *event* zinnen in het Engels echter niet beschikbaar voor het Nederlands. Ik betoog dat deze "absolute" lezing van de Engelse simple past in het Nederlands weergegeven moet worden met een voltooid tegenwoordige tijd omdat deze lezing typisch niet-narratief is, en het Nederlands een voltooid tegenwoordige tijd gebruikt voor de uitdrukking van perfectief aspect in niet-narratief taalgebruik.

De verschillende restricties op de interpretatie van de Engelse en de Nederlandse ongemarkeerde verleden tijd kunnen dus allemaal verklaard worden in termen van, enerzijds, aspect (in interactie met Aktionsart), en, anderzijds, genre, dus het onderscheid tussen narratief en niet-narratief taalgebruik.

Hoofdstuk 7 bevat een aantal overwegingen achteraf en suggesties voor verder onderzoek.