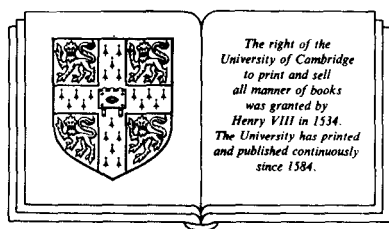# Tense

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Cambridge Textbooks in Linguistics

TENSE

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PREFACE

My aim in writing this book has been to provide an introduction to the nature of tense in language. This has entailed two more specific objectives: first, the definition of tense (Chapter 1, especially section 1.4), and, secondly, an account of the range of variation found in tense systems across the languages of the world. Because of this second more specific aim, I have tried to make the book rich in illustrative material from a wide range of languages. However, it should always be borne in mind that this material is presented not solely as being of interest in its own right or to specialists in that particular language; rather, the language-specific material is designed to illustrate the range of variation found cross-linguistically and to suggest the limitations which a general theory of tense must place on such possibilities for variation.

It is my belief that the best pedagogical approach is to present a coherent account of some domain, rather than to attempt to describe in overview the full range of theories and pre-theoretical statements that have been made about that domain. I have not, therefore, felt myself obliged to take account of the various competing approaches to tense that abound in the general and language-specific literature. I have striven rather to present and justify the approach that I believe to be correct; in a few instances, where I am genuinely unsure as to the relative merits of competing viewpoints, I have indicated this. As discussed in chapter 1, I take tense to be defined as the grammaticalisation of location in time, and I believe that at least much of what has traditionally been called tense does fall under this definition. While I believe that this approach to tense is correct, clearly if the reader, having worked through the various data and claims presented in this book, can show that they can be accounted for more elegantly in a theory where tense is not viewed in this way, then I still believe that the presentation of a range of tense data in this book will have served a purpose in the advancement of our science.

Unlike much recent work on tense, the present book contains little by

way of formalism, nor is it written within the framework of any specific current theory of linguistics. This is not intended as a denigration of work in these areas, in particular tense logic. Rather, I believe that there is a certain systematised set of facts about tense in human language that must be taken into account by any general theory of tense, and therefore by any general theory of language that incorporates an account of tense. It is these facts that I have attempted to systematise in the present work. I believe that this should serve as a corrective to current formal approaches to the representation of tense which do not take account of the range of variation found across languages, or conversely predict a greater range of variation than is possible in human language. It is therefore to be hoped that this book will lead to a dialogue between those interested in establishing the range of tense oppositions made cross-linguistically or in individual languages, and those interested in constructing a formal theory of tense or in incorporating such a formal approach into a formal theory of language overall. Some suggestions as to how the material in this book might serve to foster a more formal account are given in chapter 6.

The approach outlined in the previous paragraph is felt by many linguists to be un-theoretical (a-theoretical, even anti-theoretical). This is not my intention nor, I believe, my achievement. My aim in this book is to present a theory of tense, a theory which is sensitive both to the range of tense oppositions found cross-linguistically and to the limitations on that variation. My ultimate hope is, of course, that the ideas propounded in this book will be incorporated into a more general theory of language, but at the very least the ideas contained in this book will provide constraints on the evaluation of such a theory in terms of its adequacy in handling material on tense. When these ideas on tense are incorporated into a more general theory, then the more general theory may well suggest further questions about tense which have been overlooked in the present work. This is simply the general interaction between work in a specific sub-domain of linguistics and the overall theoretical framework. I would be sad indeed if the present book had exhausted all the interesting questions that could be asked about tense. On the other hand, my hope for the future is somewhat tempered by the fact that many current linguistic theories (as opposed to theories specifically about tense) seem to have remarkably little of interest to say about tense.

The main area of concentration of this book is the typology of tense, i.e. establishment of the range within which languages can vary in the grammaticalised expression of location in time. There are many adjacent areas which I have chosen not to discuss in this book, not because I feel that they

are uninteresting, but because I am either not competent to discuss them and evaluate the often conflicting literature concerning them, or because they would take me too far afield from my main concerns. I have already mentioned tense logic, although I believe that a thorough grounding in tense logic will prove an invaluable aid in trying to integrate the ideas contained in this book into a more general formal theoretical perspective. In addition, I have not considered the acquisition of tense systems, whether by first or second language learners. I have not discussed in detail the use of tense in discourse: this decision is likely to be particularly controversial, and I have therefore included some justification for my position here in section 1.8. Finally, I have not considered in any detail recent work on the psychology, philosophy, or physics of time; the discussion of conceptualisation of time in section 1.2 is no doubt naive, but I believe justified by the kinds of time location distinctions found in natural language. While I find current philosophical work on the nature of time fascinating, it is not clear to me that it provides any insight into the linguistic phenomenon of tense.

Examples from languages other than English are usually presented as given in the source cited, or transliterated where a non-Roman alphabet is used in the source. While I have tried to keep to reliable sources for all my material, it should be borne in mind that the establishment of the correct meaning of a grammatical category like tense is by no means straight-forward, so that even for a language as thoroughly studied as English there remains controversy concerning the definition of the various tenses, and statements that turn out to be erroneous can be found in what are otherwise reliable and insightful sources. I hope that readers who find errors of analysis in the examples presented will communicate their objections to me. While I have carefully checked all examples against original sources, experience suggests that in a book citing examples from a wide range of languages typographical errors invariably slip past the author. I hope that readers spotting such errors will forgive me, and communicate the errors to me.

Portions of the material contained in this book have been presented at various fora, in North America, Australia, Brazil and the Netherlands, and I am grateful to all those who have offered me comments on these earlier versions of this material. I am particularly grateful to the students and guests in my seminar on Tense at the University of Southern California. For comments on a slightly earlier draft, I am grateful to John Lyons, N. V. Smith and Dieter Wunderlich. I have also benefited from general discussion with Östen Dahl. More specific acknowledgements are included in the relevant footnotes. Preparation of the pre-final draft was carried out while I

was a guest at the Max-Planck-Institut für Psycholinguistik in Nijmegen.

In chapter 1, I have attempted to discuss various theoretical and methodological assumptions which underlie the body of the book (chapters 2–4). Readers who are new to the area of tense may prefer, on first reading, to skim through chapter 1 and concentrate on the more central chapters; the reasons why some of the problems discussed in chapter 1 are problems will then be clearer after the more central material has been assimilated, and this chapter can then more profitably be studied in detail.

<div style="text-align: right">Bernard Comrie</div>

May 1984

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Some theoretical
and methodological
preliminaries

1.1 Scope of the work

The overall scope of this work is to provide an account of tense from the viewpoint of language universals and linguistic typology, that is, to establish the range of variation that is found across languages in tense, and what the limits are to that variation. In chapter 1, first some preliminary remarks are given concerning the notion tense and its relation to time, in particular defining tense as the grammaticalisation of location in time; this necessitates some discussion of other expressions of time in language, in particular of the conceptually distinct notion aspect, and of ways other than grammaticalisation in which location in time can be expressed in language (sections 1.2–4). The discussion of deixis in section 1.5 provides a framework of the logical possibilities for locating events in time, with discussion of which of those possibilities are found, or at least are found recurrently, across the languages of the world. Sections 1.6–7 provide further background on the problems inherent in defining the meaning of a grammatical category, with examples drawn from problems that arise in the definition of tense categories in various languages. Finally, section 8 justifies the approach taken in this book whereby tense categories have meanings that are defined independent of context, in particular discourse context, and assesses the role of discourse as a tool in establishing the meanings of tense categories.

The body of the book is composed of chapters 2 to 4, which discuss the three major parameters that are relevant in the definition of tense categories: the deictic centre (whether this is the present moment, as in absolute tense – chapter 2 – or some other point in time, as with relative tense – chapter 3); whether the event referred to is located prior to, subsequent to, or simultaneous with the deictic centre (chapters 2 and 3); and the distance in time at which the event referred to is located from the deictic centre (chapter 4). This third parameter, incidentally, is one which is omitted from most earlier accounts of tense as a grammatical category, no doubt

because grammaticalisation of degrees of remoteness from the deictic centre is not found in the major European languages (e.g. distinction of a recent past from a remote past), although such distinctions are widespread among the languages of the world. At the end of each of the later chapters there is also a section showing how the parameter discussed in that chapter interacts with parameters discussed in the earlier chapters.

Chapter 5 investigates the interaction of tense with syntactic properties of various languages, showing how an adequate account of this interaction can explain apparent anomalies in the use of tense, such as examples where a given tense seems not to have its usual meaning. Special attention is paid to sequence of tenses, including the use of tenses in indirect speech.

Finally, chapter 6 ties together the discussion of the body of the book and suggests what features of this general discussion must be incorporated into a formal theory of tense. Although this chapter is much more formal than the other chapters, it is nonetheless intended as a prolegomenon to some future theory of tense rather than as a formal theory in its own right.

1.2 Time and language

For the purpose of the present book, we will assume that time can be represented as a straight line, with the past represented conventionally to the left and the future to the right. The present moment will be represented by a point labelled o on that line (figure 1). This representation enables us to represent diagrammatically a range of ordinary-language statements about time. For instance, to say that an event occurred in the past is to locate it diagrammatically to the left of o; to say that one event occurred after another is to say that it is located diagrammatically to the right of the other event; to say that one event occurred during some other process is to say that the location of the first event is diagrammatically inside the time-span allotted to the second process (since a process necessarily takes up a certain span of time, it will be represented diagrammatically as a certain section of the time line, rather than just a point). More importantly, it will be claimed that this diagrammatic representation of time is adequate for an account of tense in human language.

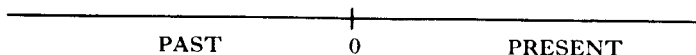|	PAST	0	PRESENT

Figure 1. Representation of time

It should be noted that there are several things that are left vague, unspecified, in figure 1, and intentionally so, because they seem to have no bearing on the analysis of tense as a linguistic category (or, more generally,

on linguistic expressions of time). Figure 1 is intended to leave open whether the time line is bounded at either the left (i.e. in the past) or the right (i.e. in the future); whatever stand one takes on this issue seems to be irrelevant linguistically, although it is, of course, of major philosophical importance. Figure 1 does not directly represent the flow of time, i.e. whether the present moment is viewed as moving along a stationary time line, or whether time is viewed as flowing past a stationary present reference time point. While both of these metaphors turn out to be important sources for time expressions across languages,[1] they do not seem to play any role in the characterisation of grammatical oppositions cross-linguistically. It will, however, be important for the discussion of deixis in section 1.5 and in the body of the book to note that there is motion of the present moment relative to the time line, i.e. what is now the present moment is a time point subsequent to what was the present moment five minutes ago.

Although figure 1 will probably coincide with most readers' naive conceptualisation of time, and is in accord with traditional Western philosophy, it has been claimed that some societies have radically different conceptualisations of time. Clearly, if our intention is to provide an account of tense valid for any language, then this account must not be based on culture-specific concepts of time, but should rather be a general theory appropriate to all cultures, and thus to all languages. In fact, all such claims about alternative conceptualisations of time known to me turn out either to be inaccurate, at least in terms of the relation between the alleged alternative conceptualisation and the content of figure 1, or to be irrelevant, in that they conceptualise time on such a macroscopic scale that the alternative conceptualisation turns out to be irrelevant in other than philosophical discussions about the conceptualisation of time.

The most extreme denial of figure 1 would be to claim that some cultures have absolutely no concept of time. When, however, one investigates the substance of this claim, it turns out that what is actually being claimed is considerably less than the apparent claim. One can easily see this by imagining what it would be like literally to have no conceptualisation of time. Given the conceptualisation of figure 1, we can readily express the different stages in the life of a human, i.e. that humans are first born, then grow to maturity, then age, then die. If one had no concept of time, then one would find just as natural a development where humans first appeared as dead, then came to life as old people, then grew gradually younger and eventually disappeared into their mother's womb. Equally, one would not be surprised to see a certain individual first as a grown man, then as a baby,

[1] See, for instance, Traugott (1978).

then as a corpse, then as an adolescent. Needless to say, no human culture is known to have such a conceptualisation of time.

What is true of many cultures, however, is that they seem to lack any conceptualisation of progress, i.e. in many cultures it is taken for granted that today will be much the same as yesterday, and that tomorrow, or indeed the day fifty years into the future from today, will be much the same as today. Indeed, the idea of major qualitative changes associated with the movement of time is probably a quite recent development even in Western thought: it was certainly not characteristic of most Europeans during the Middle Ages. But it is one thing to lack any concept of (or interest in) progress, and another to have no concept whatsoever of time: even if tomorrow is exactly like today, it will still be characterised by a temporal sequence whereby the sun first rises in the east, then moves across the sky, then sets in the west, rather than vice versa or arbitrarily jumping about the sky. Moreover, even in many cultures that do lack any interest in progress, there are still accounts that clearly refer to some past event, such as stories of the creation of the world, of how ancestors arrived in the area occupied by that culture, or of a golden age in the past which was considerably better than the present, or even (though much less frequently) of promised golden ages in the future.

In some instances, the claim that a certain culture lacks any concept of time, or has a radically different concept of time, is based simply on the fact that the language in question has no grammatical device for expressing location in time, i.e. has no tense (see further section 2.5). Perhaps the most famous such equivocation is in Whorf's account of Hopi, where the absence of straightforward past, present and future categories and the overriding grammatical importance of aspect and mood is taken to be indicative of a radically different conceptualisation of time.[2] It would be equally logical to assert that speakers of languages lacking grammatical gender categories have a radically different concept of sex from speakers of languages with such grammatical categories.

A more serious objection to the universality of figure 1 is that some cultures have concepts of time that are cyclic. Of course, on a limited scale all cultures necessarily have some concept of cyclicity in time, given such microscopic cycles as that of day and night, or that of the seasons of the year. However, the cultures referred to here have a macroscopic concept of cyclic time, such that the events that are happening at the present moment are direct reflections of events that occurred in a previous cycle, and will in turn

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[2] Carroll (1956); for a thorough refutation of Whorf's views on Hopi time, see Malotki (1983).

be reflected by the events in each subsequent cycle. This might suggest replacing figure 1 with a circle for such cultures, which include Australian Aboriginal cultures. This assumption would, however, be incorrect. The most obvious reason, given our present concerns, is that no language has been found in which such a macroscopic concept of time cycles has any relevance to the expression of tense as a grammatical category. In the body of this book various examples from Australian Aboriginal languages are cited, and in no single example do we find grammatical categories whose meaning would be definable in such terms as 'occurring at the present moment or the equivalent point in any other cycle', rather, we find categories definable in such terms as 'occurring at the present moment', just as in cultures which lack cyclic concepts of time on a macroscopic level. In fact, in cultures which have such a cyclic conceptualisation of time, the cycles are invariably of such long duration that it makes no difference to the activities of daily life that they are taking place in a cycle of time rather than on a straight time line. In other words, this difference in conceptualisation of time overall is no more relevant to a study of tense than would be the difference between Euclidean and non-Euclidean geometry to a study of the meaning of terms like *here* and *there*. Moreover, even in societies that have a cyclic concept of time, the individual cycles seem to be viewed as chronologically arranged, i.e. there are earlier cycles and later cycles, so that at best the cyclicity would be superimposed on an overall conceptualisation of time that is linear. The conclusion is, thus, that figure 1 is an adequate representation of time for the purpose of analysing expressions of time in natural language.

Our interest in this book will be to relate various events, processes, states, etc., to the time line represented in figure 1. Rather than repeating at each occurrence the expression processes, events, states, etc., it will be convenient to have a single term to subsume all of these, and this term will be situation. It should be noted that this is therefore a technical term, with a considerably broader meaning than the corresponding word in ordinary English. Situations which are punctual, or at least which are conceived as such, will be represented by points on the time line. Situations which occupy, or are conceived as occupying, a certain stretch of time will be represented as stretches of the time line. Thus, in figure 2 situation A precedes situation B, while situation C follows situation B; situations D and
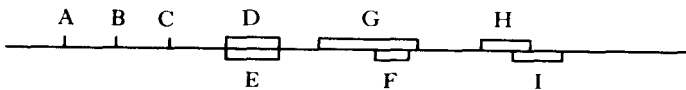

Figure 2. Representation of situations on the time-line

E overlap, as do F and G, and also H and I, although the precise natures of the overlaps are somewhat different (D and E cover exactly the same time stretch; F occurs wholly within G; part of the time stretch of H is also part of the time stretch of I, while there is also part of the time stretch of H that is not part of I and part of I that is not part of H). For easier legibility, situations have been represented graphically above or below the time line, but it should be borne in mind that more accurately they should be thought of as on the line. In figure 2, there is no specification of the present moment, so that we can talk about the location of situations A–I relative to each other, but not in more absolute terms, relative to the present moment. Figure 3 adds specification of the present moment, so that we can now say that A, B, C, D, and E are in the past; F, H and I in the future; while G includes the present moment, i.e. is currently ongoing.
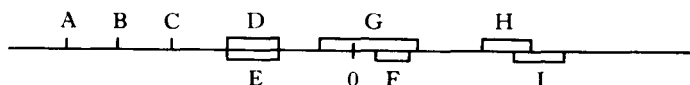

Figure 3. Representation of situations relative to the present moment

There are basically two ways in which one can relate a situation to the time line. One is to locate the situation somewhere on the time line, necessarily in relation to some other specified point or segment of the line, since in one sense all time location is relative, there being no absolutely specified points. (The use of the term absolute tense to refer to locating events relative to the present moment is merely a terminological convention.) This concept of time location is essential to the linguistic category of tense, as will be made clearer in section 1.3.

The second possibility for relating situations to the time line is that one might be interested in discussing the internal temporal contour of a situation, for instance in discussing whether it is to be represented as a point on the time line, or as a stretch of the time line. The internal temporal contour of a situation provides the conceptual basis for the notion of aspect, which refers to the grammaticalisation of expression of internal temporal constituency. Thus the difference between *John was singing* and *John is singing* in English is one of tense, namely a location before the present moment versus a location including the present moment; while the difference between *John was singing* and *John sang* is one of aspect. The phenomenon of aspect will not be further treated, other than incidentally, in this book.[3] The reader should, however, beware that in many linguistic works, especially traditional grammars, the term tense is rather mislead-

[3] For this author's views on aspect, see Comrie (1976).

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ingly used to cover both tense and aspect, as when Spanish, for instance, is said to distinguish a preterite tense (e.g. *hablé* 'I spoke') from an imperfect tense (e.g. *hablaba* 'I used to speak, I was speaking'). Given the current widespread acceptance of the opposition between the terms tense and aspect, it is advisable to make the terminological distinction in order to avoid conceptual confusion.[4] The problem is exacerbated by the fact that many languages have forms that include specification both of location in time and of internal temporal contour; thus Spanish *hablé* is both perfective aspect and past tense. Nonetheless, it is crucial to maintain the conceptual distinction between tense and aspect, and to have a terminology that is capable of maintaining this distinction. For the treatment of forms that combine tense and aspect (or other category sets), refer to section 1.4.

1.3 Location in time

The idea of locating situations in time is a purely conceptual notion, and is as such potentially independent of the range of distinctions made in any particular language. It does, however, seem to be the case that all human languages have ways of locating in time. They differ from one another, however, on two parameters. The first, and overall less interesting for our present purpose, is the degree of accuracy of temporal location that is achievable in different languages. The second, and more important, is the way in which situations are located in time, in particular the relative weight assigned to the lexicon and to the grammar in establishing location in time.

In modern technological societies, we are accustomed to very accurate specifications of time location and of other phenomena relating to time, so that not only has the time unit *second* become entrenched, but many members of the culture are at home in talking of much smaller stretches of time, such as nanoseconds. Given these possibilities, very fine distinctions in location of time are possible, and when the linguistic possibilities are combined with those of standard mathematical notation an infinite degree of precision is in principle attainable. In many other cultures, however, such precision is not attainable, at least not by means other than direct borrowing of expressions from the languages of more technological cultures. Indeed, in some cultures, very little value is attached to precision

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[4] In the grammars of some languages, moreover, the term tense has an even wider range of use. For instance, many Bantu languages are described as having special 'tenses' for use in relative clauses, and special negative 'tenses', thus giving a fourfold multiplication of the number of tenses (main clause, main clause negative, relative clause, relative clause negative). Needless to say, the difference between corresponding affirmative and negative, or main clause and relative clause, forms is not one of tense, and it would be wise to avoid this terminological confusion.

in temporal location, so that in Yidiny, for example, it is impossible to distinguish lexically between the concepts 'today' and 'now'.[5] Although, in cultures where precise location in time is attainable, expressions can be created for such precise statements, it should be noted that such expressions do not impinge at all on the grammar of the language in question, rather they use existing grammatical patterns, at best creating new lexical items (such as *nanosecond*), or even making use of existing lexical items and mathematical expressions in order to gain precision (e.g. 10^{-6} *seconds*). No language has grammatical devices to make such fine locations, and indeed the languages of the cultures that find it necessary to make such fine discriminations characteristically have a very small range of grammatical distinctions in this area: thus, in English, it is possible to locate a situation before the present moment (by using the past tense), and even to locate a further situation prior to that first situation (by using the pluperfect), but there is no way of quantifying grammatically the time lapse between the first and second situations, or between either of them and the present moment.

The sum total of expressions for locating in time can be divided, in terms of their importance for the structure of the language, into three classes. (The same classification is, of course, possible for other notional oppositions, such as those of aspect or number.) The largest set is that composed of *lexically composite expressions*, since this set is potentially infinite in a language that has linguistic means for measuring time intervals; this gives English expressions of the type *five minutes after John left*, 10^{-45} *seconds after the Big Bang*, which simply involve slotting more accurate time specifications into the positions of a syntactic expression. The second set is the set of *lexical items* in the language that express location in time, and would include such items as *now, today, yesterday*. The precise dividing line between lexically composite expressions and lexical items is different from language to language: thus, English *last year* is a lexically composite expression, whose meaning can be calculated compositionally from the meaning of *last* and the meaning of *year*, whereas the Czech equivalent *loni* is a single lexical item. Since the stock of items listed in the lexicon is necessarily finite, the range of distinctions possible lexically is necessarily smaller than that which is possible using lexically composite expressions.

The third set is the set of *grammatical categories*, which turns out to be the least sensitive of the three. Thus English, for instance, has at most the following grammaticalised expressions of location in time: present, past, future, pluperfect, future perfect, and many linguists would even question the inclusion of the future (and, presumably, the future perfect) in this list.

[5] Dixon (1977: 498–499).