

The function of tense in texts

Royal Netherlands Academy of Arts and Sciences
P.O. Box 19121, 1000 GC Amsterdam, the Netherlands

Proceedings of the colloquium 'The function of tense in texts',
Amsterdam, 10-12 April 1990

ISBN 0 444 85732 X

Koninklijke Nederlandse Akademie van Wetenschappen
Verhandelingen, Afd. Letterkunde, Nieuwe Reeks, deel 144

The function of tense in texts

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North-Holland, Amsterdam / Oxford / New York / Tokyo, 1991

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Text samples from *Lehrbuch der Botanik für Hochschulen* by E. Strasburger et al.,
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Typeset by Joke Burger-Smit, Faculteit der Letteren, Vrije Universiteit Amsterdam.

Cover: Christiaan van Heule, *De Nederduytsche grammatica ofte spraec-konst*,
Leyden 1626.

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INTRODUCTION

Investigation of tense semantics constitutes a field in which various linguistic, literary, and logical disciplines meet each other. Most notably among these, all of the existing linguistic disciplines have approached the intricate problems of tense meanings and uses from their own characteristic angles: descriptive, theoretical, comparative, applied, text-linguistic, semiotic, logically oriented, computational. Against the background of the obtained results, which are often of a general nature, there is now a need for in-depth semantic studies from a clearly defined methodological point of view. An approach based on the idea of direct meaning-form associations in language seems to be a promising starting point of such a semantic investigation for reasons of its relative transparency.

In an approach based on direct meaning-form associations in language, meanings of language forms can be neither understood nor investigated without reference to the possibilities of their use. A systematic investigation of options present and choices made in texts representing various discourse types thus forms the indispensable basis for a semantic investigation. In the process of establishing the meaning(s) of the investigated form(s), contextual effects are set apart from the independent contributions of the individual meaning-form associations, and boundaries are established by which a meaning or a set of meanings is distinguished from other, comparable, units in the language under investigation. In addition to the delimitation, the meaning contents are established through evaluation of the contribution to individual interpretations on the one hand, and abstraction from contextual variation on the other. The outcome of this evaluation which may be called 'substantive semantic investigation', always partly depends on the investigator's theory about the systematicity of language. It is in this last respect that the various investigators whose approach focuses on meaning-form associations in language may disagree among themselves, whereas they usually agree in the other methodological respects of semantic analysis as outlined above. This methodological agreement may be considered more substantial than differences in points of view relating to the attention to different production and perception mechanisms of language.

It is this variety within a unified basic methodology that makes an investigation of tense within the meaning-form framework interesting and promising, yielding new insights into formal and substantive characteristics of tenses themselves on the one hand and their discourse functions on the other. Formal considerations about tenses refer to e.g. possibility vs. impossibility of a compositional analysis, and substantive considerations refer to either temporal or actuality-based definitions of tense meanings. As to discourse functions, formal considerations deal with e.g. cohesion and delimitation devices, while substantive considerations bear on thematic structuring. For a better understanding of tense functions, the interplay among all of these and similar characteristics of tense and discourse must be investigated.

In the hope of making further progress in the investigation of tense, a colloquium titled 'Function of Tense in Texts' was organized by two Dutch linguistic research programmes at the two universities of Amsterdam, the *Universiteit van Amsterdam* and the *Vrije Universiteit*, consisting of linguists from the departments of Dutch, Slavic, English, French, Finnish, Scandinavian, and Classical Languages. These linguists share the idea that language is based on direct meaning-form associations at all levels, and that the interpretation of a language form in actual use results from an interplay of the meaning of this form with contextual and pragmatic factors. Conversely, success of a textual analysis is held to depend on the accuracy of the meaning characterization of the used forms. This entails that a semantic theory of tense can and should be evaluated by its contribution to text analysis.

Against the background of these general assumptions shared by the members of the two research programmes in Amsterdam (i.e. a part of the programme 'Functional language research: grammar and pragmatics' at the *Vrije Universiteit*, and the programme 'Analytical studies of languages signs' at the *Universiteit van Amsterdam*), representatives of these programmes have invited leading scholars working in the field of tense and narrative discourse to participate in the 'Function of Tense in Texts' colloquium, which was organized by the Royal Netherlands Academy of Arts and Sciences and held in Amsterdam on April 9-11, 1990. At this colloquium, formal and substantive approaches to tense functions in texts were brought together. Not only such tense-specific notions as temporality vs. actuality, or relevance, were discussed, but also the more general notions of meaning, interpretation, and inference, the status of invariant meaning vs. prototypical and other variants of use, deixis, and textual organization as related to the use of tense in texts. Roughly speaking, there were two main groups of contributors to the colloquium: one group primarily concerned with tense and the other primarily concerned with narrative discourse organisation as represented by texts. One of the dominant topics discussed by the first group centered around tense meanings as invariants in the paradigmatic discriminatory sense, i.e. as the basis for distinguishing the analysed category from other categories, and the relation between these paradigmatic invariants and their syntagmatically conditioned variants as attested in texts. One of the dominant topics discussed by the second group was the contribution of tense to the processing of narrative texts in terms of analysis and (re)construction of the chronological event ordering and their relation to the reference times. The results of these two kinds of approaches may be seen as mutually complementary: the results of the latter group have contributed to a better understanding of the problems formulated by the first group in the sense of clarifying the status of contextual variants. In their turn, the analyses of the first group have helped towards a better understanding of boundaries among the categories and subcategories discussed at the colloquium.

The reader will find the results among the contributions, representing the ideas of each participant, in part further shaped through discussions at the colloquium, which were led by the invited discussant, Östen Dahl of the University of Stockholm, Sweden. The contributions to the present volume consist of synchronic and diachronic language descriptions, comparisons, and theoretical considerations. By formulating research questions, leaving some of them unanswered and others answered in several

different ways, these contributions show us where further research of tense in narrative texts is needed, and how it may possibly proceed.

The organizers of the 'Function of Tense in Texts' colloquium wish to express their special thanks to the Royal Netherlands Academy of Arts and Sciences for making this linguistic colloquium possible, and to all the participants for their stimulating discussions.

Saskia Daalder, Jadranka Gvozdanović, Theo Janssen, and Sies de Haan

TENSE FUNCTIONS IN SCIENTIFIC TEXTS

Sven-Gunnar Andersson

Abstract

This contribution consists of two parts. In Part One there is a discussion of tense in general. An attempt is made to unify the time reference and the proximity/remoteness concepts. Part Two exemplifies and discusses ways in which tense functions in a standard academic German handbook of botanic science.

1. On tense in general

When trying to see how tense functions in a text one's perception is naturally determined by the specific choice of theoretical stand on the tense issue in general. If one is to look for a plausible invariant or general meaning of a tense-form, i.e. for a semantic element which is always present or can always be recurred to irrespective of the way the form is used, then, given the large diversity of types of usage for each tense, such invariant semantic elements must be situated at a fairly high level of abstraction.

Under the hypothesis that invariant meanings can be found, good candidates seem to be the following ones (reasons will be given further below). The difference between present and non-present can be seen as related to an attitude of proximity or distance chosen by the speaker towards the state of affairs referred to by the proposition of the sentence or clause. (For a comprehensive overview of the proximity/distance concept for tenses, cf. Fleischman (1989).) The time reference meanings 'now' and 'not now' are according to this view prototypical interpretations of the concepts of attitudinal proximity and attitudinal distance and not the systemic values of the opposition. But they have a special status, cf. below. The attitudinal distance postulated above for the non-present tenses must be differentiated in order to separate the description of the past tense from that of the future. One possible way of doing this is the following. With the past tense the state of affairs referred to by the proposition is envisaged as distant and as part of the speaker's experience, real or imagined. With the future tense the state of affairs referred to by the proposition is envisaged as distant and as not yet having started to become part of the speaker's experience.

Of course 'being part of experience' and 'not yet having started to become part of the speaker's experience' both imply time reference, to 'before now' and 'after now', respectively. But it is not just the same as the descriptions 'before the moment of speech' and 'after the moment of speech' etc. With 'distant and part of (imagined) experience' for the preterite the preterite of literary narration, the counterfactual use of the preterite with present and future time reference,

the preterite in politeness formulas a.s.o. can be captured. Correspondingly the present time modal use and the 'pure' future time use of the so called future tense can both be derived from 'having not yet started to become part of experience'. The modal use ('He will be off by now') implies that the proof is yet to be adduced, the future time reference use ('I'll be off') that the state of affairs has not yet come into being. For German this common feature has been formulated by H. Glinz as [ausstehend], i.e. ['yet to be seen'].

For both tenses goes that the state of affairs can be just imagined (preterite counterfactuals and future tense in modal use with present time reference, respectively). The difference lies in the way the imagined state of affairs is envisaged: "posed as part of a fictive situation" (i.e. as imagined experience) - for the preterite counterfactual - vs. 'yet to be seen' - for the future tense.

The exclusive time reference approach to the semantics of tenses could alternatively be looked upon as a projection of elements of prototypical communicative situations into the tense-forms.

Situations out of context when described in the present tense are normally interpreted as linked to the moment of speech, and in the preterite as having taken place at a time clearly experienced as before the moment of speech. The reason for this is - under the perspective developed here - that these are prototypical situational factors determining the choice between attitudinal proximity and attitudinal distance in ordinary everyday face-to-face conversation about states of affairs of specific referents. The present tense is used for talking about what is now and about plans and decisions concerning the time to come. The preterite is used for situations which are conceived of as real but are described with an attitude of distance because they took place in the past, that is, belong to not-now.

These are also the prototypical interpretations of the tense forms when given out of context. But it must of course be borne in mind that strictly speaking there is no such thing as interpretation out of context. What happens, as a rule, is that the tense form is given the most natural interpretation which appears to be suitable to the propositional content of the sentence or clause under consideration. Which means: it is implicitly provided with an unmarked context.

For the German sentence *Das Auto steht auf dem Parkplatz* the most natural interpretation is 'the car is standing on the parking lot' meaning that one single well-defined car is at the moment of speech standing on one single well-defined parking lot. It takes some imagination for non-linguists (and for some linguists as well) to become aware of the possibility of e.g. habitual, or generic or modal interpretations: 'the car stands on the parking lot' meaning that the normal, or appropriate place for the said car or any car is the said parking lot or any parking lot and not the street for example. Correspondingly with the preterite: *Das Auto stand auf dem Parkplatz*. The straightforward interpretation is that there was a specific time interval before now when a specific car, which is familiar to the speaker at least, was standing on the specific parking lot, which is equally familiar to the speaker.

What is elicited from most people when asking for the meaning of something in what is called 'out of context' is the prototypical unmarked interpretation. In German linguistics this is known as *Hauptbedeutung* ('principal meaning').

The *Hauptbedeutungen* or prototypical interpretations of the present and the

preterite, respectively, are cases of time reference totally in keeping with traditional descriptions such as 'simultaneity or anteriority in relation to the moment of speech'. They are intuitively felt as normal for the present and the preterite. It is not likely that grammar tradition, the Latin paradigm or anything like that is involved here. Linguistically totally naive people always answer in this way, which then by definition is the principal meaning (the *Hauptbedeutung*), i.e. the meaning given by most people when asked for the meaning of an element in isolation. The crucial question is, of course, if the prototypical interpretation can be taken as the basis for a description of the interrelation between the different types of usage of the tense-form in question. Such an approach would imply that the other uses of the same form can be derived - directly or via intermediary steps - from the prototypical interpretation, i.e. from the prototypical time reference meaning, by adding or taking away specifications. How such an adding and taking away can be brought about does not seem to be totally clear.

With concepts such as attitudinal proximity and attitudinal distance as general meanings for the present and the preterite the two tense-forms are at system level not specified as to the kind of dimension in which deixis operates with regard to the proposition and its referent state of affairs. This makes it possible to derive the different types of usage without invoking mechanisms like 'pragmatic cancellation of the tense meaning', 'pressing into other service', 'emergence of secondary functions' and the like. Such mechanisms seem to be necessary to postulate with the other approach. Apart from their unclear status they seem to reflect diachronic developments rather than the synchronic system of usage types available to the speaker.

One consequence of the way of looking at tense adopted in this article is that the actual meaning of tense-forms is derived mainly from the textual environment and from the communicative situation in which the tense forms are being used. Since, however, present time reference and past time reference have just been singled out as prototypical interpretations of the present and the past tense respectively, it follows for the position taken up here that these two tenses are interpreted as 'now' and 'before now' unless there is evidence to the contrary in the text or situation. This means that even without time adverbials the time reference meaning is actualized as long as there are no other elements present determining the actual meaning in some other way. If there is a determining factor present it will give rise to a certain interpretation of the tense form determined by it. The forms of the same tense that follow in the text will then be given the same interpretation until there is some new factor which brings about a change of interpretation. This is the view put forward by Bäuerle (1977) for the interaction between time adverbials and tenses: tense forms take over the specification given by a time adverbial until there is some new specification. I believe this idea can be expanded to describe the relation between tense forms and context factors in general, thus providing a general frame-work for the description of the function of tense-forms in texts.

Time adverbials are universally acknowledged as determining factors for time interpretations and are also extensively studied, for obvious reasons: the combination fits the idea that tense has got to do with positions on the time axis, which it has, of course, though not exclusively. Given the admittedly vague time orientation

of the bare tense-forms, time adverbials help in defining the exact position of states of affairs on the time axis, especially in terms of calendary time.

What other determining factors are there beside time adverbials? It follows from the above that there will be many kinds of contextual or situational factors determining the actual interpretation of tense forms when used in texts. For ordinary conversation the importance of pragmatic factors is well known, but what about written texts? This will be the concern of Part Two of this article.

2. On the function of tense in a scientific handbook

2.0. Introductory remarks

The function of tense in texts is mostly studied on the basis of narrative or conversational discourse. Technical and scientific texts are as a rule considered less rewarding in this respect, since they are thought to be fairly homogeneous, in fact monotonous, as regards tense and tense functions.

One aim of the following contribution will be to show that such texts might be worth studying and just because of their matter-of-fact character can shed some light on the different textual and pragmatic factors involved in establishing the actual meaning of potentially multifunctional tense forms.

The discussion will be based on a standard academic handbook in botanical science, viz. *Strasburgers Lehrbuch der Botanik für Hochschulen*, 28th ed. 1962 (732 pages). It is widely used internationally and has been translated into different languages (among them English, Spanish, Italian, Polish). Short text samples in German, reflecting the macrostructure of the book, have been chosen at random. They represent the following: preface to the 1st edition, introduction and physiology part. The text samples are appended at the end of the article.

It will be shown that the choice and the function of a tense form as a rule fits in fairly directly with the general character of the text passage in which it is used. How the relevant passage is defined and how the 'general character' of it is established, i.e. what demarcation signals, salient lexical, conceptual and other features there are in the narrow and wider co(n)text and what, how and why pragmatic factors come in will therefore be concentrated on.

Contrarily to what might perhaps be expected, a certain diversity of tense forms occurs, i.e. in addition to the present tense (which forms the bulk of the material) the perfect, the pluperfect, the preterite and even the future tense are attested. A certain emphasis will be laid on the different functions of the present tense, especially, of course, on its generic use, of which two varieties are distinguished (totality and prototype).

2.1. Tense in the preface to the 1st edition

A preface is a short meta-text of its own and because of this the demarcation of the relevant passage determining the functions of tense forms is no problem

at all: the preface is the relevant passage. Knowing what prefaces to academic handbooks are like, there are a lot of conventionally given expectations on the part of the reader as to what kinds of information it might contain: what caused the book to be written, glimpses of the coming about of the book, the aim of it, something about the contents of it, acknowledgements to those without the assistance of whom the book would never have been published. That is: a presentation of the structure of the book and facts about its genesis.

Thus there are two main time-levels here which can be established without the help of the tense forms. For one knows anyway which information deals with actions and processes necessary for bringing about a book and which are therefore to be located as prior to the book extant. The book extant can be taken as the specific copy just being read but also prototypically: the handbook as a text of which there is an amount of copies. In the preface to the first edition *the book*, Germ. *dieses Lehrbuch* (this handbook), is probably to be taken in this latter sense.

Given the two time-levels which can be established on cognitive grounds, the tenses, if there is no evidence to the contrary, can be expected to have the following distribution: the present tense will refer to the printed book and the preterite will refer to things that are prior to the day of print and therefore distant.

The perfect may combine the two in the common way it does in German. Matters relating to the genesis phase may well be considered as being of current relevance for the completed book. The perfect can also be used as a means of transition between the two time-levels since the finite form is in the present and the infinite form refers to a time interval anterior to that of the finite form, thus referring to a time-level which can be the same as that of the preterite. This textual function as a bridge between the two time-levels is common for the perfect in German. A good example of this is the last paragraph:

Nicht genug ist das Entgegenkommen des Herrn Verlegers zu rühmen, der die Kosten der farbigen Darstellungen im Texte nicht scheute, und der überhaupt Alles *aufgeboten hat*, um dem Buche eine vollendete Ausstattung zu geben.

(‘Not highly enough *is* the courtesy of the publisher *to be praised*, who *did not shun* the costs of the coloured pictures in the text and who *has spared* virtually no efforts to create an attractive book.’)

The preface to the 1st edition is thematically divided into three parts: the authors in relation to their book (paragraphs I - II), the book in relation to its intended readers (paragraph III) and the illustrations in relation to the authors and the publisher (paragraphs IV - V).

The genesis of the book is described - together with some other things - in the first two and the last two paragraphs. Therefore there are preterites and perfects there.

What signals are there determining the functions of the tense forms other than the pragmatics of a preface? A full account would take up too much space. Therefore

mainly the first paragraph will be commented on. It deals with who the authors are and what they did to the book.

In the first line a time interval is set - *wirken seit Jahren als Dozenten... zusammen* ('work since years as university teachers together') - starting some years back and reaching at least up to the time of the writing of the preface. This time interval is the frame for *dauernd* ('constantly') and *vielfach* ('in many respects/on many occasions') in lines 2-3.

The time adverbial *jetzt* ("now") in line 4 is a new determiner, referring not only to the time of the writing of the preface, but also to some time before that. In any case, through the contrast between *seit Jahren* (l. 1) and *jetzt* (l. 4) the initial time-interval is considerably diminished. From the content of the sentence ('They now try in cooperation to lay down their collected experience in this book') can be inferred that the earliest starting point for *jetzt* ('now') is the time when the authors decided to write a book together.

If *jetzt* is taken together with *in diesem Buche* ('now in this book'), given that the book is completed, the action of trying cast in the present tense can certainly not be simultaneous with the time of the writing of the preface. The choice of the predicate *versuchen niederzulegen* ('try to lay down') and the present tense could be a metonymic device as in the expression *Dies Buch ist ein Versuch* ('This book is an attempt') for *Dies Buch stellt das Resultat eines Versuchs dar* ('This book is the result of an attempt...') The expression for the genesis phase is used to describe a state. This is very common even where the genesis phase is strictly not true: *The Matterhorn rises high above the surrounding Alps; Amsterdam offers ample opportunities to the lover of Rembrandt's art* a.s.o. To use a dynamic description for what is actually a state is a very common linguistic device. The authors chose to express their attempt in the proximity form proper, that is, in the present tense. If the perfect had been chosen - *Sie haben es jetzt gemeinschaftlich versucht, ihre Erfahrungen niederzulegen* ('They have now tried...') - the proximity value would have been ascribed to the current relevance of the past efforts of the authors. The current relevance would be the existing text of the book itself, of course, which would have been totally appropriate as far as the content of just this sentence is concerned. But this would have resulted in a sequence of three sentences with the main clause in the perfect: line 2-3 *Sie haben... gestanden* ('They have been standing'); line 3-4 *Sie haben es...versucht* ('They have tried'); line 5 *Den Stoff haben sie...verteilt* ('The subject-matter they have divided between them'). This would not only have been a fairly clumsy repetition of the same auxiliary form *haben* ('have') in second position. But it would also not have been in keeping with the norms of usage of the perfect tense in texts of this kind. The perfect is in German not very well accepted outside dialogue or colloquial oral narration for building up taxis chains of the kind we would have got here, viz. a chain of events taking place one after another and being linked to each other by logical or pragmatic implication. Thus the function of the present tense in this sentence might also be to make sure that the perfect can be used once more.

The first paragraph and the sentence just discussed (i.e. 'They now try...') illustrate in my opinion why there is such an abundance of partly overlapping types

of usage for tenses. If for some reason one tense is blocked or not appropriate at some point in the text, there is always recourse to another one to get the proposition dressed as a clause in a way which fits the main intention of the speaker/author. But of course the specific connotations of the tense-form chosen are included in the bargain.

The reference frame for the tenses is in the preface what I would call the *level of book production*: a situation of printed media communication comprising the relations between author(s), publisher, book and reader(s). So far relations between authors, publisher and book have been commented on. The third paragraph deals with the book in relation to its intended readers, that is, with situations not yet existing. This is the motive for the use of the future tense in lines 17-18: *So wird der Mediciner... die Kenntnis...erlangen können* ('Thus, the medical student will become acquainted with...').

In the preface, the book extant is the origo of the deictic system of time reference. Around it are situated facts pertaining to its genesis and to its intended use.

2.2. The Introduction Part

The text sample from the introduction part of the book (pp. 3-4) consists of three different sections. The first one is a short passage (four lines) following the heading *Einleitung* ("Introduction") and containing definitions with the verbs in the present tense. Botany is defined as part of biology which in turn is defined as the science of living matter. The second section is provided with a heading of its own: *Allgemeine Betrachtungen über das Leben* ('General Reflections on Life'), followed by 50 lines of text cast in the present tense except twice. The third section, called *Ursprung des Lebens* ('Origin of Life') differs radically from the first two with respect to tense. In the 39 lines the present, the preterite, the perfect, the pluperfect and the future are being used.

Tense use in the first two sections. When reading long passages of scientific prose dominated by the present tense an impression arises analogous to that of reading narrative prose written in the past tense: the choice of the present tense is normal for this type of message, viz. for a description of what makes up an aspect of the surrounding world according to valid knowledge. 'Surrounding world' and 'Valid knowledge' seem to be values of proximity connected with the present tense here rather than any directly time-related features. At the same time the scene is set in many ways for a generic interpretation (definition of the discipline, 'General reflections...' as heading). The present tense forms are, however, interpreted as generic because the nominal phrases connected with them are given a generic interpretation. Countable nouns in the plural seem to refer to all members of the class in question, thus expressing a totality, cf. e.g. lines 5-6: *den... Stoffen* ('the... substances'), *die Lebewesen* ('the living beings'), *Pflanzen* ('plants'), *Tiere* ('animals'), *Menschen* ('human beings'). Countables in the singular crystallize the class into one prototypical member as in lines 28-31: *Bei der Fortpflanzung... entstehen aus einem Individuum Nachkommen, die... mit der Ausgangsform übereinstimmen* ('Through reproduction descendants originate from one individual in... correspondence with the initial form').

With some few but interesting exceptions the object level of the passage is in the present tense. The generic interpretation results from the aim of the passage: to describe the general principles of the water supply of plants in the root part. In the first two paragraphs countables are practically all in the plural which gives rise to the impression that the text deals with the totality of plants or root hair cells of plants.

An interesting way - as far as the use of tenses is concerned - of describing a chain of interrelated physiological processes is exemplified by the third paragraph, lines 47-60, where there is a switch into the singular. In the first two paragraphs the last occurrence of the plural *Wurzelzellen* ('rootcells') is in line 45. In the third paragraph the process of water absorption is described for one root-hair cell which is singled out as a prototypical representative of the whole class. For this prototype root-hair cell the story of osmose is told. It takes as its point of departure a situation where there is water in the root-hair cell (line 49). In retrospective is told that this water entered from the outside: (lines 47-49) *Wenn ... eine Wurzelhaarzelle ... von aussen Wasser aufgenommen hat* ('When a root-hair cell has absorbed water from the outside'). What can happen to the water in the cell and how long this can go on is told in lines 49-52. The present tense is used because the general and valid observation is the focus of attention. Line 52 ends with a colon signaling that a description of consequences is to follow.

In lines 53-58 is described what will actually happen as a result of the prerequisites stated in lines 49-52: *Die Zelle mit der höheren Saugkraft wird... Wasser aus der... Zellwand aufnehmen. Die Zellwand ihrerseits wird ... diesen Verlust ... zu decken suchen.* ('The cell with the higher suction potential will absorb water from the cell-wall. The cell-wall will in its turn try to make up for this loss'). The two main clauses are in the future tense.

For the story about the prototypical root-hair cell there is thus a kind of situational frame of its own with its own origo from where things are looked upon in the retrospective and the prospective.

With the fourth paragraph the story-telling is over and a return is made to general observations in the present tense. It starts out with a perfect in a clause referring to the genesis of scientific knowledge and ends with a future tense form for information on the level of textual organization.

3. Conclusion

The use and the functions of different German tense-forms in *Strasburgers Lehrbuch der Botanik* are regulated by the general character of the passage, which can always be defined without the help of the tense-form.

Several textual levels can be discerned to which the tense-forms relate, since each of the levels comes with its own time axis including an origo. The main content of the book for obvious reasons belongs to the *object level*. Standard academic handbooks tell the reader the valid facts and the existing knowledge about the matter under discussion, in this case what plants consist of, what their life processes are, what kinds of plants there are and how they are distributed over the globe. The proximity form, i.e. the present tense, is naturally best suited for the description

All this makes the choice of the preterite, that is, of the distance form, completely justified. The use of the present (proximity) or perfect (proximity + anteriority) would have stressed other aspects: the bulk of scientific ideas - never mind their age - as a valuable or at least interesting possession, the current relevance of scholars such as Aristotle, van Helmont a.s.o. irrespective of their ideas. But this might have blurred the author's argument somewhat, if his intent was to clearly separate current opinion from views no longer valid. The ways tense forms are chosen makes it plausible that such a separation was in fact the main intent of the author.

The switch into the proximity perspective, that is, to past research of current relevance and to actual views, is with utmost clarity signaled by the very first words of the third paragraph: *Erst die exakten Versuche* ('Not until the exact experiments'). The perfect and the present tense are used in the whole paragraph, with one exception. There is a pluperfect in line 19: *schon sehr viel früher ausgesprochen worden war* ('... had already been expressed long before'). The distance form is solely motivated by the retrospect view starting from a time level in the past. From the 19th century the author goes back to about 1600.

In the last line of the section there is an instance of the future tense: (line 38) *wie wir noch ausführlich begründen werden* ('as we will motivate extensively later on'). The content of the clause is related to the level of textual organization. It refers to some later part of the book.

The level of textual organization can thus constitute a frame of reference of its own for tense forms. At this level the table of contents and the numbers of pages make up a system of coordinates comparable to that of calendary time for the time dimension.

So far there have been established four levels of reference in the text to which the use of tenses relate: *the object level*, that is the level on which information about manifestation phenomena of plants is situated, *the history of science level*, that is the level referring to how facts presented on the object level were arrived at, *the textual organization level* referring to the order in which information is presented in the text, and *the book production level* referring to the genesis and purpose of the whole book (cf. preface). The four levels are constituted on lexical and cognitive grounds as frames or scenes independently of the use of tenses.

2.3. The Physiology Part

The text sample (from pp. 197-199) deals with the water absorption of plants through the roots. It contains three sentences referring to the level of textual organization. The direction of orientation in the text is not only given by the tense forms but also through lexical expressions of deixis, two spatial, and one temporal: (line 1) *Die vorstehenden Erörterungen haben die Kräfte aufgezeigt* ('The preceding account has pointed out the forces...'); (lines 18-19) *wie später erörtert werden wird* ('as will be discussed later on'); (lines 69-70) *Davon wird in den nächsten Abschnitten noch eingehender die Rede sein* ('This will be more thoroughly discussed in the following sections').

Of the two non-present tense forms in the passage one is a counterfactual subjunctive: (line 13-14) *Moleküle... die isoliert... für alle Zeiten als tote Substanz vorliegen würden.* ('Molecules... which would in isolation exist as dead substance for all times').

The morphologically preterite subjunctive has the epistemic value 'distant from what is actually the case', whereas its time reference meaning is 'simultaneity and posteriority in relation to the state of affairs in the governing clause.' The excursion into the counterfactual is of course rhetorically motivated, it is motivated by the pragmatics of reasoning. If one states what negative consequences would occur unless x were the case then one states the importance of x.

There is one example of the perfect: (lines 50-51) *die seit ihrer Entdeckung eine grosse Rolle gespielt haben* ('which have been very important since the time of their discovery'). A retrospective time interval is set referring to the history of biological science, the only example in this passage where a switch into the meta-level of the history of science contains a finite verb.

The heading of the third section, *Ursprung des Lebens* ('Origin of Life'), induces expectations of quite another kind than for the sections just discussed. The passage should contain some information on the current stand of the discussion and at least one description of a hypothetical chain of events that lead up to the emergence of life in distant past. This is tantamount to saying that a story of how life originated should be told here. The text of the section actually deals with the current stand of the problem and the history of scientific speculations about it, from Aristotle onwards. Because of this, the passage is strewn all over with time adverbials and other time-referring expressions. They refer to time when life might have originated, to the time when a certain view was held by somebody, to the life-span of the scholar in question, to points in time when former views were replaced by new ones, to the time actual for the edition of the book. Thus both the object level 'when life originated' and the meta-level 'history and present stand of scientific speculation' are represented.

The paragraphs 2-4 deal with the history of the problem. Adverbials and other expressions relating to past calendary time here go with the past tense and the pluperfect for such views and speculations which count as abandoned and are not shared by the authors of the book. This is to be found in the whole of the second paragraph (for the time up to about 1840) and for one instance in the 4th paragraph (the 'panspermial hypothesis', line 30). The characterization 'view not shared by the author' is motivated in total independence of the tense form. It follows not only from the obvious absurdity of many speculative views but also by implications from the time adverbials, from verbs and other words used. Some examples: (line 7) *Im Altertum und noch bis in das 19. Jahrhundert... Anschauung weitverbreitet* ('In Antiquity and as late as at the beginning of the 19th century... opinion widely spread'); (lines 8-9) *Nach Ansicht des Aristoteles* ('According to Aristotle'); (line 11) *Noch im 17. Jahrhundert konnte x die Behauptung aufstellen* ('As late as in the 17th century x could propound'); (line 13) *Die spekulative Naturphilosophie* ('Speculative natural philosophy'). In line 15 there is also an instance of quotation marks used for disclaimer: *des 'Erwachens der Organismen' zum Leben* ('the 'awakening of organisms' to life').

of what makes up a sector of the real world around us. But as illustrated at the end of the last section such descriptions do not exclude story-telling about prototypical entities which leads to the use of other tense-forms. And as soon as something is cast in the historical mode proper, such as passages or chapters dealing with the origin of life or with the history of the plant regions of the world, the preterite and the perfect are to be expected and also occur.

A second level of text is constituted by the *history of science level*, dealing with how the facts described at the object level were arrived at. This likewise calls for the use of the preterite and the perfect.

A third level of text consists of sentences and clauses dealing with *textual organization*. References to earlier or later chapters in the book can - and in the handbook in question do - occasion the use of the perfect and the preterite for 'earlier in the book' and the future tense for 'later in the book' although, of course, the present tense could have been used as well.

A level of its own is the *book production level*, represented by the preface where the relations between authors, book, publisher, and readers are in focus.

The handbook from which the empirical material of this article is taken conforms to wide-spread conventions for scientific texts. Therefore, the four reference levels for the use of tense-forms discerned in this article might be taken to represent a fairly general pattern of reference frames for tense-forms in texts of this kind.

The tense-forms themselves do not seem to contribute very much to the semantics of the passages. On the contrary their use is *motivated* by the semantics of the passages. Of course, when there are several tense-forms to choose from, that is, when the semantics of the passage allows a choice, then the specific meaning that goes with a tense form is given more prominence.

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Vorwort zur I. Auflage

- I **D**ie Verfasser dieses Lehrbuchs wirken seit Jahren als Docenten der Botanik an der Universität Bonn zusammen. Sie haben dauernd in wissenschaftlichem Gedankenaustausch gestanden und sich in ihrer Lehraufgabe vielfach unterstützt. Sie versuchen es jetzt gemeinschaftlich, ihre im Lehren gesammelten Erfahrungen in diesem Buche niederzulegen. Den Stoff haben sie so untereinander verteilt, daß
- EDUARD STRASBURGER die Einleitung und die Morphologie, FRITZ NOLL die Physiologie, HEINRICH SCHENCK die Cryptogamen, A. F. W. SCHIMPER die Phanerogamen übernahm. 5
- II Trägt auch jeder Verfasser die wissenschaftliche Verantwortung nur für den von ihm bearbeiteten Teil, so war doch das einheitliche Zusammenwirken Aller durch anhaltende Verständigung gewahrt. Es darf daher das Buch, ungeachtet es mehrere Verfasser zählt, Anspruch auf eine einheitliche Leistung erheben. 10
- III Dieses Lehrbuch ist für die Studierenden der Hochschulen bestimmt und soll vor Allem wissenschaftliches Interesse bei ihnen erwecken, wissenschaftliche Kenntnisse und Erkenntnisse bei ihnen fördern. Zugleich nimmt es aber auch Rücksicht auf die praktischen Anforderungen des Studiums und sucht den Bedürfnissen des Mediciners und Pharmaceuten gerecht zu werden. So wird der Mediciner aus den farbigen Bildern die Kenntnis derjenigen Giftpflanzen erlangen können, die für ihn in Betracht kommen, der Pharmaceut die nötigen Hinweise auf officinelle Pflanzen und Drogen in dem Buche finden. 15 20
- IV Die zahlreichen Abbildungen wurden, wo nicht andere Autoren angegeben sind, von den Verfassern selbst angefertigt.
- V Nicht genug ist das Entgegenkommen des Herrn Verlegers zu rühmen, der die Kosten der farbigen Darstellungen im Texte nicht scheute, und der überhaupt Alles aufgeboden hat, um dem Buche eine vollendete Ausstattung zu geben. 25

Bonn, im Juli 1894.

Die Verfasser

EINLEITUNG

- D**ie Botanik ist die Naturgeschichte des Pflanzenreichs. Neben der Zoologie, der Naturgeschichte des Tierreichs, und der Anthropologie, der Naturgeschichte des Menschen, bildet die Botanik einen Teil der Biologie, der Wissenschaft vom Leben schlechthin. 1
- I** **Allgemeine Betrachtungen über das Leben**¹. Gegenüber den unbelebten Stoffkörpern die Lebewesen – Pflanzen, Tiere und Menschen – ein «kategoriales novum» im Sinne des Philosophen NICOLAI HARTMANN. So wie zwei gasförmige Stoffe, der Sauerstoff und der Wasserstoff, wenn sie in bestimmter Weise zueinander in Beziehung treten, eine völlig neuartige Eigenschaft offenbaren, indem sie zu «flüssigem» Wasser werden, oder wie andere, an und für sich farblose Atome, wenn sie zu bestimmten chemischen Verbindungen zusammentreten, plötzlich gefärbt erscheinen, so müssen wir auch das Leben als eine neue Eigenschaft der Materie betrachten, die nur bei einer ganz bestimmten Ordnung der gleichen Moleküle auftritt, die isoliert oder in einfacheren chemischen Verbindungen für alle Zeiten als tote Substanz vorliegen würden. 5 10
- II** Diese spezifische Ordnung der belebten Materie, die das grundlegende materielle Merkmal des «Lebens» ausmacht, hat morphologische und dynamische Folgen. Morphologisch kommt sie in der Ausbildung deutlich gegenüber ihrer Umwelt abgesetzter Individuen zum Ausdruck, die in der Regel durch eine wohldefinierte Gestalt ausgezeichnet sind. 15
- III** Als dynamisches Ergebnis beobachten wir gleich drei neue Eigenschaften, die der unbelebten Materie im allgemeinen fremd sind: Stoffwechsel, Produktivität und Reizbarkeit. In einem ständigen Stoffwechsel wird aus der Umgebung tote Materie aufgenommen und in das lebendige Ordnungsgefüge eingebaut (Assimilation), während andererseits auf Grund abbauender Prozesse immer wieder tote Stoffwechselschlacken an das Reich des Unbelebten zurückfallen (Dissimilation). Die Ordnung selbst bleibt jedoch unverändert erhalten: sie befindet sich in einem Fließgleichgewicht. Die Produktivität äußert sich in Wachstum und Fortpflanzung. Wachstum tritt in der Regel dann ein, wenn der aufbauende Stoffwechsel die abbauenden Prozesse übertrifft. Bei der Fortpflanzung oder Selbstvermehrung (Idiosynthese) entstehen aus einem Individuum Nachkommen, die in ihren wesentlichen Merkmalen und Eigenschaften mit der Ausgangsform übereinstimmen (Autoreduplikation, identische Reduplikation, Vererbung). Unter Reizbarkeit oder Irritabilität verstehen wir schließlich die Fähigkeit, auf eine Änderung der äußeren und inneren Lebensbedingungen in einer Weise zu reagieren, die sich aus der unmittelbar zugeführten Energie allein nicht erklären läßt, sondern auf Energiereserven zurückgreift, die der Organismus selbst zur Verfügung stellt (Auslösemechanismus). 20 25 30 35
- IV** Wenn auch einzelne dieser Eigenschaften gelegentlich bereits im Bereich des Unbelebten vorkommen können («Gestalt» der Kristalle, «Stoffwechsel» einer Kerzenflamme, autokatalytische «Vermehrung» bestimmter Chemikalien, «Reizbarkeit» einer gespannten Mausefalle), so ist doch ihr gemeinsames Auftreten ausschließlich auf die Lebewesen beschränkt. 40
- V** Das Substrat aller Lebenserscheinungen bei Tieren wie Pflanzen ist das **Protoplasma**, ein hochorganisiertes System zahlreicher verschiedener, teils einfacher, teils sehr verwickelt gebauter chemischer Verbindungen. Unter ihnen sind die Makromoleküle der Eiweißkörper und Nukleinsäuren als Träger der spezifischen Ordnungsstrukturen und ihrer unveränderten Weitergabe von Generation zu Generation von hervorragender Bedeutung. Die Erforschung des Protoplasmas und seines submikroskopischen Feinbaus gehört daher zu den wichtigsten Aufgaben der Biologie; sie erfordert engste Zusammenarbeit zwischen Biologen, Biochemikern und Biophysikern. 45
- VI** Auch die sogenannten Viren, submikroskopisch kleine, filtrierbare Erreger tierischer und pflanzlicher Krankheiten, die seit ihrer Entdeckung in der Diskussion über die Entstehung des Lebens eine große Rolle gespielt haben, enthalten stets Eiweiß und Nukleinsäuren. Wie die Organismen sind sie zur Autoreduplikation befähigt. Da sie jedoch einen eigenen Stoffwechsel vermissen lassen und sich auch nur mit Hilfe und auf Kosten höher organisierter Organismen vermehren können, dürfen die kristallisierbaren Viren dennoch nicht zu den eigentlichen Lebewesen gezählt werden. (Vgl. S. 261 und 353). 50 55

- I** **Ursprung des Lebens** ². Über die Herkunft des Lebens auf unserer Erde können wir nur Vermutungen anstellen. Wir haben begründeten Anlaß zu der Annahme, daß die ersten Lebensspuren auf ihr bereits vor mehreren hundert Millionen Jahren vorhanden gewesen sind. Erwiesen ist ferner die Tatsache, daß die ersten Lebewesen sehr viel einfacher organisiert waren als die große Masse der Organismen, die heute als Träger des Lebens auftreten. 1
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- II** Im Altertum und noch bis in das 19. Jahrhundert hinein war die Anschauung weitverbreitet, daß das Leben sich jederzeit spontan aus Unbelebtem zu entwickeln vermöge. Nach Ansicht des ARISTOTELES (384–322 v. Chr.) sollten nicht nur die Pflanzen, sondern auch Würmer, Fliegenlarven und andere Insekten aus Tau, Schlamm, faulem Mist und Exkrementen durch *Urzeugung* (*generatio spontanea*) hervorgehen. Noch im 17. Jahrhundert konnte einer der berühmtesten damaligen Gelehrten, VAN HELMONT, die Behauptung aufstellen, daß aus Weizenkleie und den Ausdünstungen alter getragener Hemden Mäuse entstehen könnten. Die spekulative Naturphilosophie des ausklingenden 18. und beginnenden 19. Jahrhunderts erblickte in den Versteinerungen den Beginn des «Erwachens der Organismen» zum Leben. 10
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- III** Erst die exakten Versuche von HERMANN HOFFMANN (1819–1891) und LOUIS PASTEUR (1822 bis 1895) haben den wissenschaftlichen Beweis erbracht, daß alles Leben, soweit wir es heute kennen, stets wieder von Leben abstammt – eine Erkenntnis, die übrigens von einigen sorgfältig beobachtenden Naturforschern schon sehr viel früher ausgesprochen worden war. So hat bereits der berühmte englische Anatom WILLIAM HARVEY (1578–1657) die Theorie aufgestellt, daß alle Tiere aus Eiern entstehen: «omnia animalia ex ovo». Später hat der Physiologe W. PREYER diesem Satz die allgemeine Form gegeben: «omne vivum e vivo». Diese Tatsache wird noch heute von manchen Biologen als eines der wichtigsten Grundgesetze der Biologie angesehen. 20
- IV** In neuerer Zeit mehren sich jedoch, besonders in den Kreisen der Biochemiker, die Stimmen, die eine *Urzeugung* des Lebens auf unserem Planeten unter den besonderen Bedingungen, wie sie vor vielen hundert Millionen Jahren geherrscht haben müssen, nicht nur für sehr wahrscheinlich, sondern für die einzige Denkmöglichkeit halten. Sie können sich darauf berufen, daß der bereits auf ANAXAGORAS (um 500–428) zurückgehende Gedanke, das Leben sei ewig und sei in Form von «Ätherkeimen» auf die Erde gelangt, der später von dem schwedischen Physiker SVANTE ARRHENIUS in die Form der *Panspermiehypothese* gekleidet wurde, auf Grund unserer neueren Erfahrungen über die tödlich wirkenden Weltraumstrahlen stark an Glaubwürdigkeit eingebüßt hat. Andererseits hat der amerikanische Chemiker STANLEY L. MILLER gezeigt, daß wichtige Bausteine des organischen Lebens (unter denen die Aminosäuren Glycin und Alanin mit Sicherheit nachgewiesen worden sind) mit Hilfe elektrischer Entladungen in einer sauerstofffreien, künstlichen «Ur-Erdatmosphäre» aus Wasserstoff, Wasserdampf, Ammoniak und einfachen Kohlenwasserstoffen erzeugt werden können. Der Entwicklungsschritt von einer Aminosäure zum Protoplasma ist freilich immer noch sehr groß; denn Aminosäuren sind noch lange kein Protein, und reines Eiweiß ist – wie wir noch ausführlich begründen werden – erst recht noch lange kein Protoplasma. 25
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I Die vorstehenden Erörterungen haben die Kräfte aufgezeigt, mittels derer die Pflanzenzellen, sei es durch Quellung, sei es durch Osmose, das zu ihrem normalen Leben notwendige Wasser erlangen, sofern sie mit ihm direkte Berührung haben. Ein solcher unmittelbarer Kontakt kommt aber eigentlich nur für die Oberfläche submerser Wasserpflanzen sowie für gewisse Epiphyten, die im Besitz von Saughaaren sind und mit diesen das Regenwasser absorbieren (s. S. 84), in Frage. Auch die Parenchymzellen, die den wasserleitenden Gefäßen anliegen, sind hier zu nennen. Bei den eigentlichen Absorptionsorganen der höheren Landpflanzen aber, bei den Wurzeln,

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liegen im Erdboden schon insofern etwas verwickeltere Verhältnisse vor, als das Wasser im Boden nur teilweise in freier Form zur Verfügung steht. Das Bodenwasser stellt ja stets eine verdünnte Salzlösung dar, die selbst einen gewissen osmotischen Wert entwickelt. Außerdem wird ein Teil des vorhandenen Wassers auch stets von den Bodenteilchen mehr oder weniger hartnäckig gebunden und kann dem Boden nur gegen erhebliche Widerstände entrissen werden. Wie Fig. 300 zeigt, schmiegen sich die absorbierenden Wurzelhaare eng den Partikelchen des Bodens an. Jedes dieser Bodenteilchen besitzt durch Quellung oder Adsorption (s. S. 209) eine Wasserhülle um sich. Die Räume zwischen diesen Wasserhüllen enthalten teils Luft, die – wie später erörtert werden wird – für die Atmung der Wurzelzellen unbedingt erforderlich ist und deren Fehlen im Sumpfboden meist schlimme Folgen für das Pflanzenwachstum hat, teils sind sie kapillar von Wasser erfüllt, das für die Bedürfnisse der Pflanze von besonderer Bedeutung ist. Durch Kapillarwirkung kann nämlich hierdurch auch Wasser, das nicht unmittelbar mit einer Pflanzenzelle in Berührung steht, auf mehr oder weniger große Strecken im Boden nachgesogen werden. Physikalisch-chemische Zusammensetzung und besondere Struktur eines Bodens müssen daher von entscheidender Bedeutung für seinen Wassergehalt und dessen Nutzungsmöglichkeit durch die Pflanze sein (s. S. 207). Sandboden

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hält z.B. nach einem Regen geringere Wassermengen fest als ein ton- oder humusreicher, quellfähiger Boden, in dem jedoch ein größerer Prozentsatz von Wasser in einer für die Pflanze nicht mehr nutzbaren Weise gebunden wird.

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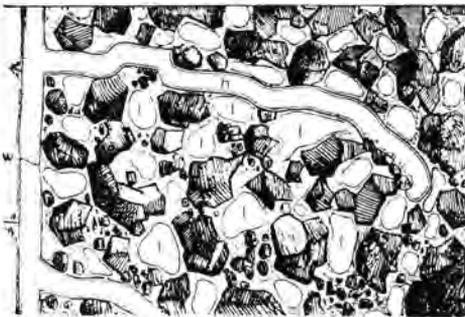


Fig. 300. Wurzelhaare im Boden. w Wurzelkörper, h Wurzelhaar, l luftgefüllte Hohlräume, von Wasser umgeben. (Schematisch nach SACHS).

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II Im allgemeinen ist die eigene Saugkraft unserer normalen Kulturböden auf Grund ihrer Adsorptions- und Quellungskräfte und des osmotischen Wertes der Bodenlösung ziemlich gering (< 5 Atm.). In typischen Salz- und Wüstenböden kann dies natürlich anders sein (ungarische Alkalisteppes 30 Atm., algerische Wüste > 100 Atm.!). Das osmotische Saugvermögen der Wurzelhaarzellen kann also dem Erdboden stets nur gegen einen gewissen Widerstand Wasser entziehen, so daß man sich nicht wundern darf, daß je nach Standort und Pflanzenart ganz verschiedene osmotische Werte in den Wurzelzellen gefunden worden sind (z.B. Phaseolus ca. 2-3,5 Atm., Pelargonium ca. 5 Atm., Halophyten > 20 Atm., Wüstenpflanzen > 100 Atm.).

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III Saugkräfte in einer Seitenwurzel von *Vicia faba* (Absorptionszone). (Nach Ursprung.)

Zellschicht	Saugkraft (Atm.)
Epidermis	0,7
Erste Rindenschicht	1,4
Dritte „	1,5
Vierte „	2,1
Fünfte „	2,8
Sechste „	3,0
Endodermis	1,7
Perizykel	0,8
Gefäßparenchym	0,9

Wenn nun eine Wurzelhaarzelle unter den eben genannten Voraussetzungen von außen Wasser aufgenommen hat, so können ihr die innen an sie angrenzenden Parenchymzellen der Wurzelrinde ihrerseits Wasser entziehen, solange ihre eigenen osmotischen Saugkräfte größer sind als die der Haarzelle: Die Zelle mit der höheren Saugkraft wird zunächst Wasser aus der gequollenen Zellwand aufnehmen. Die Zellwand ihrerseits wird durch ihre Quellungskräfte diesen Verlust aus dem Wasserbestand der Nachbarzelle, die eine schwächere Saugkraft besitzt, zu decken suchen, so daß in einem Gewebe die Zelle mit höherer Saugkraft der Zelle mit geringerer Saugkraft Wasser bis zum Ausgleich der Kräfte entzieht.

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IV Man hat in der Tat gefunden, daß in den Rindenzellen der Wurzel bis zur Endodermis ein deutliches Saugkraftgefälle besteht; die inneren Rindenzellen besitzen, wie der obere Teil der nebenstehenden Tabelle zeigt, höhere Saugkräfte als die äußeren. So ist es verständlich, daß sich nicht nur einzelne Parenchymzellen, sondern auch größere Gewebeteile von Zelle zu Zelle durch rein osmotische Kräfte in den Besitz des lebensnotwendigen Wassers setzen können. Erst an der Endodermis scheint dieses Gefälle unterbrochen zu sein, so daß für den Einstrom des Wassers in den Zentralzylinder und speziell in die Gefäße evtl. noch andere als rein osmotische Kräfte eine Rolle spielen müssen. Davon wird in den nächsten Abschnitten noch eingehender die Rede sein (s. S. 203).

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GERMAN TENSES, TENSE LOGICS, CONTEXT CHANGE, AND THE TEMPORAL INTERPRETATION OF TEXTS

Joachim Ballweg

To the memory of Thomas T. Ballmer

Abstract

The first part of my paper will present an outline of a theory of German tenses and temporal adverbs. In the framework of a language $ADETAL\ 2(V)$, of *Propositional Logic enriched by tense operators and temporal adverbials*, truth-conditions will be stated relative to given models out of a family of doubly-indexed models in the Reichenbach-Åqvist-tradition. In the second part, I shall try to tackle the question of how to choose the appropriate model (or class of models) for the temporal interpretation of sentences in contexts. This will lead, on the one hand, to the integration of *pragmatics*, viz. *Gricean* reasonings, on the other hand, it will add a dynamic perspective of *model change*.

The third part ties everything together in an attempt to analyze the temporal structure of a piece of text.¹

1. Truth-conditions for German tenses

Let us start with the presentation of our language $ADETAL\ 2(V)$.² As usual, we specify the syntax first:

1.1. Syntax

A) Symbols

SB	=	{a, a ¹ , a ² , ..., b, b ¹ , b ² , ...}
J	=	{ \neg , \wedge }
TO	=	TO1 \cup TO2
TO1	=	{Pres, Pret, Fut}
TO2	=	{Perf}
TAFO	=	{bis ...}
TADV	=	{gestern, heute, da, dann, ...}

B) Recursive definition of well-formed formulae

$$\text{WFF} = \text{WFF}^0 \cup \text{WFF}^{t1} \cup \text{WFF}^{t2}$$

- If $\alpha \in \text{SB}$, $\alpha \in \text{WFF}^0$
 - If $\alpha \in \text{WFF}$, $(\neg \alpha) \in \text{WFF}$
 - If $\alpha, \beta \in \text{WFF}$, $(\alpha \wedge \beta) \in \text{WFF}$
 - If $\alpha \in \text{TO2}$, $\beta \in \text{WFF}^0$, $\alpha(\beta) \in \text{WFF}^{t2}$
 - If $\alpha \in \text{TO1}$, $\beta \in \text{WFF}^0 \cup \text{WFF}^{t2}$, then $(\beta) \in \text{WFF}^{t1}$
 - If $\alpha \in \text{TAF0}$, $\beta \in \text{WFF}^{t1}$, $\alpha(\beta) \in \text{TADV}$
 - If $\alpha \in \text{TADV}$, $\beta \in \text{WFF}$, $\alpha(\beta) \in \text{WFF}$
- Nothing else is a WFF.

C) Comments and Remarks

Syntactically, ADETAL 2(V) is a language of propositional logic enriched with tense operators and temporal adverbials. The set of tense operators, taking formulae into tensed formulae, is TO, which is to be $\text{TO1} \cup \text{TO2}$, where TO1 is to be {Pres, Pret, Fut}, TO2 is to be {Perf}. This split mirrors in the syntactical rules, as all elements of TO operate on untensed formulae to yield tensed ones, and, moreover, the operators in TO1 operate on formulae already tensed by Perf! The idea behind this construction is to render the compound tenses of German, viz. (Present-)Perfect, Preterit-Perfect and Future-Perfect, by compound formulae in the language of logical reconstruction. Simple formulae of ADETAL 2(V) correspond to German sentencoids with the main verb in the infinitive, viz. *p*: *wir sein klettern* 'we be free-climbing', perfectivized formulae correspond to sentencoids with the main verb in the infinitive of the perfect, viz.

Perf(*p*): *wir sein klettern gewesen*
we have been free-climbing

Finally, the Operators of TO1 take these into 'normal' German sentences with the corresponding tense forms:

Pres(*p*): *Wir sind klettern.*
We are free-climbing.

Pret(*p*): *Wir waren klettern.*
We were free-climbing.

Fut(*p*): *Wir werden klettern sein.*
We will be free-climbing.

Pres(Perf(*p*)): *Wir sind klettern gewesen.*
We have been free-climbing.

Pret(Perf(*p*)): *Wir waren klettern gewesen.*
We had been free-climbing.

Fut(Perf(p)): *Wir werden klettern gewesen sein.*
 We will have been free-climbing.

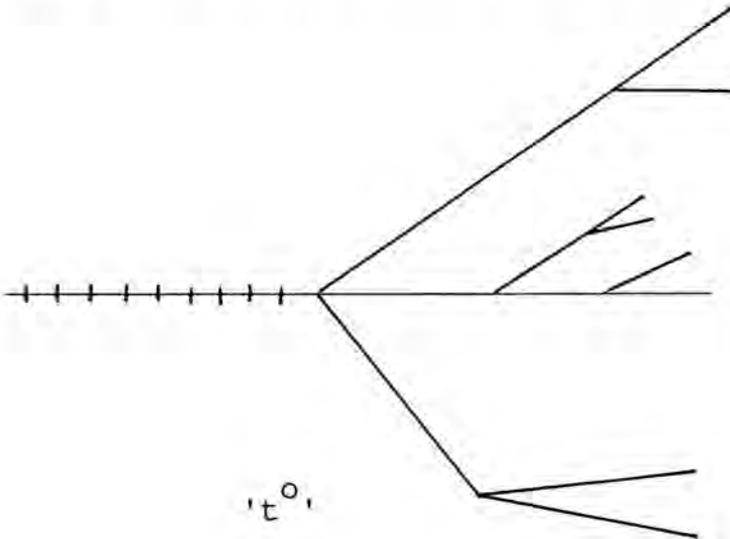
Besides the basic temporal adverbs in TADV we have compound adverbials built up from elements of WFF and TAFO (temporal adverb forming)-expressions.

1.2 Semantics of ADETAL 2(V)

The semantic universe of our language is to be a set of possible worlds, given as functions from time intervals to functions from SB into truth values. To make this fit our descriptive needs, we superimpose some structure:

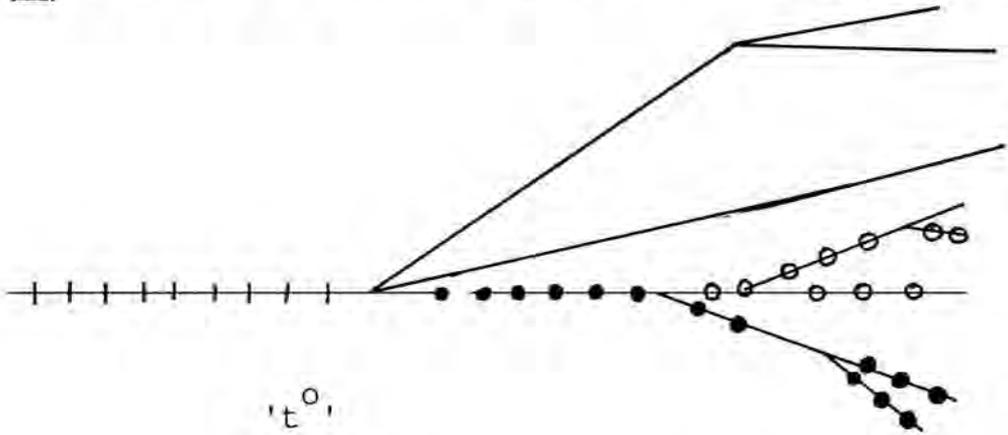
- First, we postulate that our universe of possible worlds has the structure of a *tree*.
- Second, for each model defined relative to our tree of possible worlds, we stipulate a designated world, the *real* one, intuitively, and two designated intervals, in the tradition of Reichenbach and adopting a perspective of Åqvist's³, we see these intervals as the *time of reference* and the *time from where* the former has been obtained. The original *time of reference* and *time from where* will be given by another designated interval, the *time of speech*.

Once we have singled out a real world w_0 at the speech time (t^0 henceforth), we also can designate the real past of our world w_0 . Graphically, we have the following picture:



The lines represent 'worlds' in the sense of temporal world-segments, and the line

++++ indicates the 'real world' and its past up to t^0 . The branches emerging are to be understood as the possible futures of the real world with respect to t^0 . Among these, we can again designate some as the *prima-facie-futures*, i.e. the courses the world is more (or even most) likely to take. So we get a picture like this:



where +++++ represents the real world up to t^0 , the dotted lines represent the possible futures, and the line with the full dots the *prima-facie-futures* of the designated world. For the sake of convenience, we call the union of the real world up to t^0 with all its futures

$\Omega \cdot w_0(t^0)$, and the restriction of $\Omega \cdot w_0(t^0)$ to the *prima-facie-futures* $\Omega \cdot w_0(t^0) \downarrow$

Relative to the sketched semantic background, we can now give truth-conditions for tensed formulae.

The general idea about the function of tense-operators is that they introduce restrictions on the relative positions of the time of reference and the time from where in the universe structured as above, and that they, *pace* Reichenbach, be set up as functions from formulae, worlds and pairs of time intervals to truth values. Let us start with the truth-conditions for the present tense. Consider the following sentences:

- (1) *Die Sonne scheint.*
The sun shines.
- (2) *Der Kaminfeger kommt.*
The chimney-sweep comes.
- (3) *Der dreißigjährige Krieg bricht aus.*
The war of 30 years breaks loose.

Only in (1), it seems, do we have a strict restriction that the time of reference should at least overlap the time of speech, which serves as time from where. (2) is very naturally understood as an announcement that the chimney-sweep will come, so the time of reference must be in the future, and in (3) we simply know that the event happened long ago, so the time of reference must be in the past. The moral to be drawn is of course that the present tense imposes no restriction on the time of reference! So an interpretation function g for our operator Pres has to be:

$g(\text{Pres}(\alpha), w_o, t^f, t^o) = 1$ iff for a world w such that $w \in \Omega^{w_o(t_o)}$, $g(\alpha, w, t^f, t^o) = 1$.
(With 1 for true, 0 for false.)

In the case of α being a simple sentence we stipulate that this last clause reduces to $w(t^f)(\alpha) = 1$ for at least one interval t' which overlaps t^f , as worlds in our sense are functions from time intervals to functions from basic sentences to truth values!

In other words, in a model characterized by the intervals t^f and t^o , there is no restriction for the present! Note that this must not be understood as saying that t^o doesn't matter, as the domain of interpretation $\Omega^{w_o(t^o)}$ is construed with regard to t^o !

This semantics for the present tense is very weak, but we should keep in mind that we still have time-adverbials whose role is exactly to furnish more information about the time of reference, e.g. in (2a) *Morgen kommt der Kaminfeger*, the interpretation of *morgen* would restrict t^f to subintervals of the day after the day of speech, and in (3a) *1618 bricht der dreißigjährige Krieg aus*, the interpretation of *1618* restricts t^f to subintervals of the year 1618.

And even in the original sentences (2) and (3), we can find, by Gricean Reasoning, appropriate information about the reference time, which in the case of (2), would be roughly: to understand (2), which is in the present tense, information about t^f is necessary. As none is provided, a cooperative speaker must consider it recoverable. As a t^f in the past would be in contradiction with the postulate 'Be relevant!', and as a t^f in the immediate present of the speech situation makes the sentence obviously wrong, t^f will be after t^o , so (2) is probably an announcement about a future event. In the case of (3), basic historical knowledge will at least lead to a t^f in the past, if not to 1618.⁵

The interpretation of the Preterit is much simpler, as the tense itself induces a stronger restriction, namely that t^f be in the past of t^o :

$g(\text{Pret}(\alpha), w_o, t^f, t^o) = 1$ iff there is a t which overlaps t^f , such that $w_o(t)(\alpha)$ is true, and t^f lies before t^o . In other words, the Preterit states that the event expressed by α be in the past of t^o (if a temporal interpretation is at all sensible).

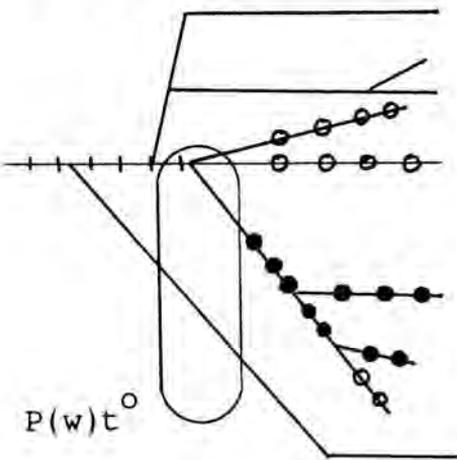
We defer the discussion of the Future and turn to the semantics of the Perf-Operator. Doing so, we should keep in mind that a formula with a Perf-Operator corresponds to a German sentencoid with an infinitive perfect. The proposed interpretation function goes like this:

$g(\text{Perf}(\alpha), w', t', t) = 1$ iff for at least one t'' before t' , $g(\alpha, w', t'', t) = 1$

If we compare this with the definition of Pret, we see that the parallel is that both Operators place the event expressed by α at an interval overlapping a *time of reference* before a *time from where*. The difference is, that the time from where for the Perf is 'dangling'. This solution unfolds its discrete charm when we analyse sentences in the (present-)perfect or preterite-perfect: the higher operator furnishes an interval for the dangling time from where, viz. its time of reference!

1.3. The Future

Let us now see how we can set up truth-conditions for an operator corresponding to the *werden*-constructions and capturing their semantic behaviour. In order to do that, we reconsider our universe of possible worlds:



As above, $+++++$ represents the real world up to t^0 , the dotted lines $-\circ-\circ-\circ-\circ-$ its 'possible futures', and the lines with full dots $\bullet-\bullet-\bullet-\bullet-$ the 'prima-facie-futures'; what is new is $P(w)t^0$. This is, intuitively speaking, the set of all worlds w at t^0 which fulfil all basic sentences p of the set P . The idea of this construction is to represent knowledge of a speaker about the world as possibly partial knowledge, i.e. a speaker knows all sentences of P to be true, but this is not a full characterization of w_0 !⁶ On the basis of this knowledge, a speaker can extrapolate either in a presentic perspective, about the possibility of other sentences being true, or in a forward perspective about the possibility of sentences being true in the future, i.e. in a world in Ω^* !

It is our claim that the *werden*-construction does exactly the job of such an extrapolation operator, which leads us to postulate the following truth-conditions:

$g(\text{Fut}(\alpha), w_0, t^f, t^0) = 1$ iff $t^0 \leq t^f$ and for at least one world $w \in P(w)t^0 \cup \Omega^*$, $g(\alpha, w, t^f, t^0) = 1$.

What this amounts to is that a sentence with *werden* + infinitive of the main verb is true, if the embedded sentence is true in a world w at t^f which is either out

of $P(w)t^0$, i.e. a world out of the 'information set' P at t^0 , or out of $w_0(t^0)$

Ω , i.e. a possible future of w_0 at t^0 . This solution captures a presentic possibility, e.g.

- (4) *"Ich würde ja nicht abreisen", sage ich, "wenn nicht feststehen würde, daß das Kind gerettet ist, das wirst du mir glauben."* (Frisch, *Homo Faber*, 175)
 "I would not leave", says I, "if it would not be clear that the child is saved, you will believe that".

as well as it does a future possibility, e.g.

- (5) *..., und eine halbe Stunde später ... sagte meine Mutter zu Leo: "du wirst es einmal besser machen als dieser dumme Junge, nicht wahr!"* (Böll, *Ansichten eines Clowns*, 36)
 ..., and half an hour later, my mother said to Leo: "you will once do better than this stupid boy, isn't it!"

As our analysis does not treat the future as ambiguous between a modal and a temporal reading, it comes equally well to grips with cases where it is by no means clear whether the possibility in question is presentic or futuric, and it even predicts they should occur, as e.g.

- (6) *Dein Mann geht sonst um und so weiter, he will be a ghost, und das wirst du nicht wollen.* (Strittmatter, *Ole Bienkopp*, 19)
 Otherwise, your man will haunt us, and so on, he will be a ghost, and you will not want that.

2. The Dynamics of Temporal Interpretation

So far, we have only given truth-conditions for tensed formulae *relative to a fixed model*. These, of course, do not suffice to interpret sequences of tensed statements, as the question 'How to find the appropriate 'chain' of models?' is at the core of a temporal interpretation of a text, and no explicit solution of that question is given so far. But in our treatment of compound tenses we have used an idea which could furnish a solution to that problem. If we look into it again, we see that the compositional treatment of these tenses was achieved by taking the *reference time* of the TO1-operators as the *time from where* for the interpretation of Perf, which introduced a *second reference time* in the past of the original one. Now this step can be rephrased in a dynamic perspective of model change in the following way:

Let $M \begin{array}{l} t^x \\ \text{---} \\ t^y \end{array} \left| \begin{array}{l} = = = = \\ <w, t> \end{array} \right. \text{stand for: is true relative to a model with } \textit{time from where } t^y$

and *time of reference* t^x at a world w at time t .

Let $M \left(\begin{array}{c} t^x \\ t^y \end{array} \right) \xrightarrow{t^z} [C]$ stand for "the model obtained from $M \xrightarrow{t^x} t^y$ by taking *the original*

time of reference t^x as the *time from where*, and introducing a *new time of reference* t^z according to condition [C]!"

In the case of simple sentences, elements of SB, the truth-condition is:

$$M \xrightarrow{t^y} \left. \begin{array}{l} t^x \\ \text{====} \alpha \text{ iff } w(t), (\alpha) = 1, \text{ where } t \text{ overlaps } t^x \\ <w^0, t> \end{array} \right\}$$

In our new perspective, this means that the truth-condition for simple (and moreover, for untensed compound) formulae is defined without any restriction as to the relative position of *time of reference* and *time from where*, and without any restriction on w !

Let us now rephrase the semantics of Pres in the dynamic perspective. Let us regard the sequences

(7) *Der Senat in Rom war besorgt.*
The senate of Rome was in sorrow.

Cäsar überschreitet den Rubikon.
Caesar crosses the Rubicon.

(8) *Im 9. Jahrhundert lebten Franken am Niederrhein. Ausgrabungen zeigen das deutlich.*
In the 9th century, Franks lived by the Lower Rhine. This is shown clearly by archeological finds.

In the Caesar-sequence, the sentence with Pres seems to stick to the model given by the context. By the way, even the Caesar-sentence alone would, as everybody at least roughly knows when Caesar lived, force a model with $t^f < t^0$ on the interpreter in order to make sense!

In the second case, however, the sentence in the present tense seems to jump back to a time including the time of speech. But this, as far as I can see, is triggered by our knowledge of the world - archeology was not a flourishing art in the 9th century!

So the semantically *dangling* reference time for Pres can often be spelled out pragmatically, e.g. by Gricean reasoning.

The upshot and moral of this discussion is: the first option for the interpretation of a sentence-in-context in the present tense is to interpret it at the model given by the context. If this strategy, as in the second example, fails, the second option is to jump back to the speech interval as the time of reference.

A definition of Pres along this lines is:

$$\left. \begin{array}{l}
 \begin{array}{l}
 t^x \\
 M \text{---} \\
 t^y
 \end{array} \left| \begin{array}{l}
 ===== \\
 <w^o, t>
 \end{array} \right. \text{Pres}(\alpha) \text{ iff either } \begin{array}{l}
 t^x \\
 M \text{---} \\
 t^y
 \end{array} \left| \begin{array}{l}
 ===== \\
 <w^o, t>
 \end{array} \right. \alpha \\
 \\
 \text{or else } M \left(\frac{t^x}{t^y} \right) \frac{t^o}{t^x} \left| \begin{array}{l}
 ===== \\
 <w', t>
 \end{array} \right. \alpha
 \end{array} \right\} \text{for some } w' \text{ out of } \Omega^{w^o, (t^o)}.$$

This definition of the present tense explains the fact, that at the beginning of a text or a conversation, sentences in the present tense without time adverbials are normally interpreted as relating to t^o , as no other time of reference is there. However, there are cases where this is not so, e.g.

- (9) *Es ist kalt. Wir schreiben den Winter 1811.*
 It is cold. We have the winter of 1811.

Unlike in the original analysis, the present tense is no longer treated as a temporal passepartout, but as a tense of extreme context-boundness. This seems a much more natural way of grasping its combinability with all sorts of temporal adverbials.

Let us now turn to the other tenses and start with the preterit. Intuitively, if a text begins with a statement in the preterit, the model is fixed in such a way, that the relative position of the *time of reference* and the *time from where*

of the 'original' $M \text{---} \frac{t^x}{t^o}$ is *appropriate* for the interpretation. If a statement in the

preterit occurs in the course of a text, either the model reached conforms to the preterit-interpretation or it is changed accordingly:

$$\begin{array}{l}
 t^x \\
 M \text{---} \\
 t^y
 \end{array} \left| \begin{array}{l}
 ===== \\
 <w^o, t>
 \end{array} \right. \text{Pret}(\alpha) \text{ iff}$$

- either $t^x < t^o$, and

$$\begin{array}{l}
 t^x \\
 M \text{---} \\
 t^y
 \end{array} \left| \begin{array}{l}
 ===== \\
 <w^o, t>
 \end{array} \right. \alpha$$

- or else $t^x \nless t^o$, and

$$M \left(\frac{t^x}{t^y} \right) \frac{t^z}{t^x} \left[t^z < t^o \right] \left| \begin{array}{l}
 ===== \\
 <w^o, t>
 \end{array} \right. \alpha.$$

The upshot of this definition is, that a statement in the preterit either 'meets' an appropriate model and is there interpreted (provided the interpretation makes sense), or 'meets' an inappropriate model and changes that into an appropriate one by means of its specific condition for the time of reference!

The new definition of Fut is now straightforward:

$$M \frac{t^x}{t^y} \Big|_{\langle w^o, t \rangle} = \text{Fut}(\alpha) \text{ iff}$$

$$\text{- either } t^o \leq t^x, \text{ and } M \left(\frac{t^x}{t^y} \right) \Big|_{\langle w^o, t \rangle} = \alpha \text{ for } t \text{ overlapping}$$

$$t^x \text{ and some world out of } \Omega_w(t^o) \cup P(w_o), t^o,$$

$$\text{- or else } M \left(\frac{t^x}{t^y} \right) \frac{t^z}{t^x} [t^o \leq t^z] \Big|_{\langle w^o, t \rangle} = \alpha \text{ for } t \text{ overlapping } t^z \text{ and some world } w^o$$

$$\text{out of } \Omega_w(t^o) \cup P(w_o), t^o.$$

This amounts to the future's being interpreted either at an appropriate context with the *time from where preceding or equalling the time of reference*, or creating such a context.

Our operator Perf, whose definition was, albeit implicitly, already designed for context change, now gets the following definition:

$$M \frac{t^x}{t^y} \Big|_{\langle w^o, t \rangle} = \text{Perf}(\alpha) \text{ iff } M \left(\frac{t^x}{t^y} \right) \frac{t^z}{t^x} [t^z < t^x] \Big|_{\langle w^o, t \rangle} = \alpha$$

t^y , t^x and their relative position, as well as w^o , are furnished by the interpretation of the respective TO1 in whose scope the Perf occurs!

In the spirit of context-changing tense-logics as developed so far, we can now give truth-conditions of our temporal frame adverbials of ADETAL 2(V):

$$M\left(\frac{t^x}{t^y}\right) \Big|_{\langle w', t \rangle} \text{==== } \textit{gestern}(\alpha) \text{ iff } M\left(\frac{t^x}{t^y}\right) \frac{t^z}{t^x} \Big|_{[t^z \subset \text{the day before the day containing } t^x]} \\ t^0 \Big|_{\langle w', t \rangle} \text{==== } \alpha.$$

This definition shows that for the interpretation of adverbials we must take into account more than the 'old' time of reference to capture the fact that some adverbials 'anchor' at the time of speech, some at the time of reference, and some allow for flexible anchoring.⁸

Gestern has been analyzed above as dependent on the time of speech. Let us now turn to *da* and *dann* as examples of context-dependent adverbials:

$$M\frac{t^x}{t^y} \Big|_{\langle w^0, t \rangle} \text{==== } \textit{da}(\alpha) \text{ iff } M\left(\frac{t^x}{t^y}\right) \frac{t}{t^x} \Big|_{\langle w^0, t' \rangle} \text{==== } \alpha.$$

The idea behind this definition is, that *da* introduces the 'old' truth-interval as a new reference time. This analysis explains, *inter alia*, the use of *da* in sequences of 'elaboration', as e.g. in jokes: (10) *Geht der Tünnes ins Museum, da trifft er den Schäl und ...*⁹ 'Tünnes goes to the museum, [] meets Schäl and ...)

Let us now give, to end this section, the truth-conditions for *dann*:

$$M\frac{t^x}{t^y} \Big|_{\langle w^0, t \rangle} \text{==== } \textit{dann}(\alpha) \text{ iff } M\left(\frac{t^x}{t^y}\right) \frac{t^z}{t^x} \Big|_{[t^x < t^z \wedge t^x \cup t^z = \emptyset]} \text{==== } \alpha.$$

Dann, under this analysis, moves the time of reference on, 'keeps things moving'.¹⁰

Finally, the TAFO *bis* gets the following sketchy interpretation:

$$M\frac{t^x}{t^y} \Big|_{\langle w^0, t \rangle} \text{==== } (\textit{bis}(\beta))(\alpha) \text{ iff } M\frac{t^x}{t^y} \Big|_{\langle w^0, t \rangle} \text{==== } \alpha, \text{ and } M\left(\frac{t^x}{t^y}\right) \frac{t^z}{t^x} \Big|_{\langle w^0, t' \rangle} \text{==== } \beta, \text{ where}$$

$t^x < t^z$, and $t \cup t'$ is convex (i.e. there is no gap between t and t')

Thus, *bis* takes the time of the truth of β , and specifies, that the time of the truth of α ends at the beginning of β 's time of truth; moreover, it moves the time of reference forward.¹¹

3. *Huckleberry Finn*, or: As times go by

Let me now, in order to show how the machine works, give a sketch of an analysis of a passage from *Huck Finn* (in German translation); concentrating on the 'chain of models':

- (11) *So fuhr ich also mit dem Wagen nach der Stadt. Auf halbem Wege kommt mir 'n anderer Wagen entgegen, und natürlich sitzt kein anderer als Tom Sawyer drin. Ich hielt an und wartete, bis er rankam. Dann ruf'ich: Stillgestanden! Da hält er auch an und sperrt das Maul wie 'n Scheunentor auf, und dann schluckt er zwei- oder dreimal wie einer, der 'n rauhen Hals hat, und sagt: Ich hab dir nie was zuleid getan; das weißt du doch. Warum kommst du zurück und erschreckst mich? - Ich brauch' nicht zurückzukommen, sagte ich, weil ich überhaupt nicht davongegangen war!*

As a reverence to Mark Twain, and for the convenience of Anglo-Saxon natives:

So I started for town, in the wagon, and when I was half-way I see a wagon coming, and sure enough it was Tom Sawyer, and I stopped and waited till he come along.

I says, 'Hold on!' and it stopped alongside, and his mouth opened like a trunk, and staid so; and he swallowed two or three times like a person that's got a dry throat, and then says: 'I hain't ever done you no harm. You know that. So, then, what you want to come back and ha'nt me for?' I says: 'I hain't come back - I hain't been gone.'

Let us, for the sake of the following discussion, assume, that the first sentence 'meets' no appropriate model, but the "original" M-! So we get

$$M \frac{t^0}{t^0} \left| \begin{array}{l} = = = = \text{Pret (Ich mit dem Wagen in die Stadt fahren)} \\ <w^0, t^0> \end{array} \right.$$

iff

$$M \left(\frac{t^0}{t^0} \right) \frac{t^z}{t^0} \left| \begin{array}{l} [t^z < t^0] \\ <w^0, t^z> \end{array} \right| = = = = (\text{Ich mit dem Wagen in die Stadt fahren}):$$

$$M \left(\frac{t^0}{t^0} \right) \frac{t^z}{t^0} \left| \begin{array}{l} = = = = \text{Pres (Auf halbem Wege mir ein Wagen entgegengekommen} \\ <w^0, t^z> \text{ natürlich kein anderer als Tom Sawyer drinsitzen)} = S^2 \end{array} \right.$$

iff

$$M \left(\frac{t^0}{t^0} \right) \frac{t^z}{t^0} \Big|_{\langle w^0, t^0 \rangle} = S2.$$

Here, we see how our analysis of Pres nicely captures the fact, that Pres 'sticks' to the model it meets. This, by the way, justifies the wide scope of Pres, as

$$M \frac{t^r}{t^w} \Big|_{\langle w^0, t \rangle} = \text{Pres} (\alpha \wedge \beta) \implies M \frac{t^r}{t^w} \Big|_{\langle w^0, t^r \rangle} = \alpha \text{ and } M \frac{t^r}{t^w} \Big|_{\langle w^0, t^{r'} \rangle} = \beta$$

(where $t \supseteq t', t \supseteq t''$)!

For the next sentence, this policy of wide scope for the tense operator Pret does not seem applicable. On the contrary, the intuitively correct structure seems to be: (Pret (*ich anhalten*) \wedge (Pret (*ich warten*) bis (Pret (*er ankommen*))))). The fact that we prefer this structure over an analysis where Pret has wider scope is not wired in our reconstruction, as it has to do with pragmatic considerations, with our knowledge of the world etc.

So the Gricean 'Be orderly!' can trigger an implicature to the effect that the order of non-simultaneous events or states is mirrored in the order of the sentences relating them; if so, the time of the truth must move on! Any attempt to analyse, for instance, *und* as moving the time of reference, as *und dann*, so to speak, seems a wild manoeuvre calling strictly for Occams Razor!¹²

Our analysis of the text will now proceed as follows. Let us recall, that the

'current model' was $M \left(\frac{t^0}{t^0} \right) \frac{t^z}{t^0}$ with $t^z < t^0$. As this is an appropriate model for Pret,

we can go on:

$$M \left(\frac{t^0}{t^0} \right) \frac{t^z}{t^0} \Big|_{\langle w^0, t^2 \rangle} = \text{Pret} (\textit{Ich anhalten}), \text{ (where } t^2 \text{ after } t^1 \text{ is pragmatically plausible),}$$

$$M \left(\frac{t^0}{t^0} \right) \frac{t^z}{t^0} \Big|_{\langle w^0, t^3 \rangle} = \text{Pret} (\textit{Ich warten (bis (Pret (er ankommen))))} \text{ (where pragmatic}$$

considerations lead to the new time of truth $t^3, t^2 < t^3$)¹³.

By our definition of *bis*, this last formula gets analyzed as

$$M\left(\frac{t^0}{t^0}\right) \frac{t^z}{t^0} \left| \begin{array}{l} \text{==== Pret } (\alpha), \text{ and } M\left(\frac{t^0}{t^0}\right) \frac{t^z}{t^0} \left| \begin{array}{l} \text{==== Pret } (\beta) \\ \langle w^0, t^4 \rangle \end{array} \right. \\ \langle w^0, t^3 \rangle \end{array} \right.$$

where $t^3 < t^4$, and $t^3 \cup t^4$ is convex.

The *dann* at the beginning of the next sentence brings about a new model:

$$M\left(\frac{t^0}{t^0}\right) \frac{t^z}{t^0} \text{==== } \textit{dann} \text{ (Pres (ich ruf...)) iff} \\ \langle w^0, t^4 \rangle$$

$$M\left(\left(\frac{t^0}{t^0}\right) \frac{t^z}{t^0}\right) \frac{t^a}{t^z} [t^z < t^a, t^z \cap t^a = \emptyset] \text{==== Pres (ich ruf...)} \\ \langle w^0, t^5 \rangle$$

The next sentence starts with *da*, which leads to

$$M\left(\left(\frac{t^0}{t^0}\right) \frac{t^z}{t^0}\right) \frac{t^a}{t^z} \left| \begin{array}{l} \text{==== } \textit{da} \text{ Pres (er anhalten ...)} \text{ iff} \\ \langle w^0, t^5 \rangle \end{array} \right.$$

$$M\left(\left(\left(\frac{t^x}{t^y}\right) \frac{t^z}{t^x}\right) \frac{t^a}{t^z}\right) \frac{t^5}{t^a} \left| \begin{array}{l} \text{==== Pres (er anhalten...)} \\ \langle w^0, t^6 \rangle \end{array} \right.$$

We refrain from the labour of going on through the rest of the text, as no more new insights would emerge from a further interpretation. To summarize our analysis, we just sketch how the order of the events is brought out by it:

	time from where	ref. time	truth time
e1 = <i>Ich fuhr ...</i>	t^0	$t^z < t^0$	$t < t^0$
e2 = <i>kommt ein Wagen</i>	t^0	t^z	t^1 , (pragmatically probably in t)
e3 = <i>T.S. sitzt drin</i>	t^0	t^z	t^1
e4 = <i>Ich hielt an</i>	t^0	t^z	t^2 , pragmatically, $t^1 < t^2$ is plausible
e5 = <i>ich wartete</i>	t^0	t^z	t^3 , pragmatically $t^2 < t^3$ is plausible
e6 = <i>bis er rankam</i>	t^0	t^z	t^4 immediately after t^3
e7 = <i>dann ruf ich</i>	t^z	$t^a > t^z$	t^5 after t^4
e8 = <i>da hält er auch an</i>	t^5	$t^5 \circ t^a$	$t^6 \circ t^5$

We should stress, that only a part of the order of events is brought out by our semantical machinery, as in many cases, the relations have to be guessed on the base of pragmatic principles. But this is no shortcoming of our system: it rather underlines the fact that the temporal structures of texts are not fully determined semantically, and that even elaborate tense-logics must leave room for pragmatic steps towards a 'full' interpretation.

4. Concluding remarks

We started with the sketch of a Reichenbachian tense logic, where truthconditions for tense-operators were formulated relative to fixed models with *times of reference* and *times from where*, the *time of speech* being the *ultimate time from where*.

This system is, we saw, unable to work in an analysis of texts, as it disregards completely the mechanisms of the choice of an appropriate model for a sentence in context.

So we generalized the idea of going from a given pair of temporal indices to a new one which was already present in our interpretation of the infinitive perfect. Exploiting formal tools developed mainly by Åqvist, Günthner and Rohrer, as well as ideas and intuitions from the DRT paradigm introduced by Kamp¹⁴ we set up a 'Dynamic Tense Logic', where the tense operators and temporal adverbials introduce the appropriate models for the interpretation of the sentences they operate on.

An analysis of a short piece of text hopefully gave some evidence in favour of such a system, and it made clear, on the other hand, that there is still a need for pragmatic strategies to give satisfactory interpretations. The temporal structure of texts in German simply is not fully determined by tenses and temporal adverbs!

As most readers will have seen, this dynamic tense logic is, on the one hand, still a Reichenbachian system; on the other hand, however, it shares some intuitions and ideas with the treatment of tenses and temporal adverbials in DRT, being worked out by Kamp & Rohrer in Stuttgart. Given the growing interest of linguists in Reichenbachian systems of tense logic,¹⁵ the dynamic turn given here can hopefully help to clarify their relations to DRT-analyses worked out by computer-linguists. The water to bridge between these paradigms may be troubled, but after all, it is not as deep as it seemed to be at first sight.

Notes

1. The focus on textual problems set up by the organizers of the colloquium necessitated a thorough revision of my Reichenbachian description of the German tense system towards the Dynamic Tense Logic given in part two. Fortunately, I could draw a lot of suggestions from seminars on tense in French, English and German, where Hans Kamp and Christian Rohrer presented their DRT-analyses, and I am deeply indebted to them.
2. See Ballweg (1988: 119 ff.) and Ballweg (1989).
3. See Reichenbach (1947: 51) and Åqvist/Günthner (1978).
4. Compare the construction of 'historical moments' in McArthur (1976: 45 ff.).
5. Detailed discussions of such semantic-pragmatic analyses of the Present are to be found in Ballweg (1984), Grewendorf (1984), Heringer (1983). A critical survey is Lenerz (1986).
6. This construction traces back to the 'information sets' in Luce and Raiffa (1957). Their usefulness for the present purpose was pointed out to me by Lennart Åqvist.
7. The idea of constructing temporal operators such that they introduce new models originated with Åqvist (1976) and was refined in Åqvist/Günthner (1978) and Åqvist/Günthner-Rohrer (1977 and 1978).
8. See Smith (1980) and Ballweg (1988: 155 ff.).
9. This observation is due to Hans Kamp.
10. There is a striking similarity between, on the one hand, the difference between *da* and *dann*, and, on the other hand, the French *Imparfait* and *Passé Simple* as analyzed by Kamp and Rohrer, cf. *Jean allait à l'hôtel. Il rencontra Pierre.*, which corresponds to *Jean ging zum Hotel. Da traf er Pierre*, versus: *Jean alla à l'hôtel. Il rencontra Pierre.*, which corresponds to: *Jean ging zum Hotel. Dann traf er Pierre.*
This insight is the upshot of a discussion in the Kamp-Rohrer-seminar, WS 1989/90.
11. The treatment of compound tenses sketched here is broadly discussed in Ballweg (1988: 101 ff., and 1989).
12. See Cresswell (1977: 15 ff.).

13. As the Pret in these sentences simply 'sticks' to the appropriate model, we refrain from a further analysis!
14. See notes 7, 9, 10 above.
15. See e.g. the contributions in Ehrich/Vater and Abraham/Janssen.

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NEGATION, PROBABILITY, AND TEMPORAL BOUNDEDNESS: DISCOURSE FUNCTIONS OF NEGATIVE TENSES IN SWAHILI NARRATIVE

Ellen Contini-Morava

Abstract

This paper challenges the common assumption that negated predicates must be excluded from the definition of 'narrative' because they cannot be sequentially ordered along a time line. It is argued that the way negated predicates are integrated into discourse follows from their general pragmatic function, which is to forestall a possible expectation on the part of the hearer that the event being negated might actually occur. Given this general pragmatic function and the Gricean maxim of relevance, a negated predicate can be interpreted as 'referring' to a specific period of narrative time indirectly: the time to which a negated predicate 'refers' is a point or period of time during which the event being negated might have been expected to occur. However not all negated events have equal probability of occurring; also their probability of occurring may be more or less limited in time, depending on context. Tense-aspect-modality morphology makes an important contribution toward a speaker's assessment of how likely an event is to occur and how long its opportunity to occur lasts. These points are illustrated with data from Swahili, which like other Bantu languages has a distinct set of 'tenses' used only in the negative.

0. Introduction: negated predicates and narrative

The notion of 'narrative' is commonly defined as a series of clauses denoting actually occurring events that are sequentially ordered along a time axis, as in the following quotation from Labov (1972):

We define narrative as one method of recapitulating past experience by matching a verbal sequence of clauses to the sequence of events which *actually occurred* [emphasis added]. (Labov 1972: 359-60)

There is a relationship between the definition of 'narrative' in terms of sequences of actually occurring events and the discourse notion of 'foregrounding', as argued by Hopper (1979). Hopper states that

the difference between the sentences in the foreground (the 'main line' events) and the ones in the background (the 'shunted' events) has to do with sequentiality. The foregrounded events succeed one another in the narrative in the same order as their succession in the real world; it is in other words an iconic order. (Hopper 1979: 214)

Later in the same paper Hopper restricts the definition of narrative only to foregrounded events:

Strictly speaking, only foregrounded clauses are actually NARRATED. Backgrounded clauses do not themselves narrate, but instead they support, amplify, or COMMENT ON the narration. In a narration, the author is *asserting the occurrence* of events [italics added]. (Hopper 1979: 215)

A similar definition of narrative in terms of actual occurrence, foregrounding and sequentiality may be found in Dry (1983):

In what follows I will focus on sentences on a time line, since these are sentences that may constitute the foreground of a narrative... [Situations on a time line] are 'definite'... i.e. they are presented as actually occurring in the narrative world, as opposed to being merely talked of, expected, or hypothesized. (Dry 1983: 21)

According to these definitions, negated predicates cannot be part of a narrative because they do not refer to actually occurring events; for the same reasons they cannot be foregrounded¹.

Another basis by which negated events have been excluded from narrative comes from studies that deal with the question of what kinds of events can move narrative time forward. Several writers use Vendler's (1967: 102-3) well-known subclassification of predicates into states, activities, achievements and accomplishments, and suggest that only some of these establish a new orientation point by which the event to be mentioned next in the discourse may be located in time. In particular, it is argued that states do not normally establish a new narrative 'present', but are usually interpreted as overlapping with the reference time established earlier in the discourse (Partee 1984: 256; Dowty 1986: 44). The connection between this argument and negation is the further commonly held assumption that negated predicates can only denote states (Thomason and Stalnaker 1973, quoted in Horn 1989: 55), or at least that they refer to states of affairs which, being negated, refer to a potentially infinite number of points in time (Givón 1975 [1979: 135]).

In other words, however one arrives at it, the result of these various assumptions about the nature of narrative and the nature of negation is that negated predicates are excluded from narrative, either because they do not refer to actual occurrences, or because they, like states, are not sufficiently bounded in time to establish narrative sequentiality.

Having by now led the reader to believe that I am about to argue that negated predicates should be included in the definition of narrative, let me hasten to deny this intention. What I want to point out here is that, since the majority of studies about the temporal integration of events into discourse have focussed on narrative, the exclusion of negated predicates from narrative by definition has kept people from asking exactly how they *are* related to the time line of a narrative². That is the question I will be concerned with below. In section 1 I discuss the general pragmatic principles by which speakers assign time reference to negated occurrences. Section 2 gives a brief overview of the negative tense-aspect-modality system of

Swahili. In Sections 3 and 4 I illustrate various ways in which discourse context may affect the inference of temporal boundedness, stativity and backgrounding of negated predicates, using examples from Swahili narratives. In Section 5 I outline the distinction between meaning and inference in the (sign-based) theory of language on which this paper is based.

1. Negation and time reference

My general argument will depend on the assumption that the way in which negated predicates are integrated into the time-line of a narrative follows from their general pragmatic function in discourse. This function, pointed out among others by Labov (1972: 380-3), García (1975: 7), and Givón (1975 [1979: 92]), is to forestall a possible expectation on the part of the hearer that the events being negated might actually have occurred. This pragmatic function depends on the Gricean (1975: 46) maxim of relevance: since for any given point in time there is an infinite number of events that fail to occur, the only reason a speaker would bother to mention one of these non-occurring events would be that there is some reason to believe that it could have occurred. Given this pragmatic function, even though it is literally true that a negated predicate ranges over an infinite number of points in time, in fact speakers regularly interpret negated predicates in discourse as 'referring' to specific points or periods of narrative time. This is done indirectly: the 'time reference' of a negated predicate is a time (a) when the event being negated has at least some probability of actually occurring, and (b) when the event's failure to occur has some relevance to the discourse context. However it is obvious that not all events have equal probabilities of occurrence at any given point in a discourse. Also the likelihood of an event's occurring may have different degrees of localization in time: for some events the opportunity to occur may only last for a moment; for others the chance of occurring may be extended over a considerable period, or continue indefinitely. In order to decide how likely it is that a given event might occur at a particular point in a narrative and how long this likelihood lasts, a speaker must pay attention to a combination of linguistic signals, including the lexical meaning of the negated verb, its tense-aspect-modality marking, accompanying time adverbials and the like, as well as commonsense pragmatic knowledge about normal or expected relationships between events in discourse. I will illustrate these points with data from Swahili³.

2. The negative tense-aspect-modality markers of Swahili

Like other Bantu languages, Swahili has a formally distinct set of tense-aspect-modality (TAM) markers used only in the negative. In Contini-Morava (1989: 171-4) I argue that these markers are also semantically distinct from those used in the affirmative. Whereas the affirmative markers encode temporal sequentiality, interdependence of one event on another, and foregrounding/backgrounding, the negative markers provide information about two related semantic domains: degree of probability of the affirmative, and whether or not the event being negated is

temporally bounded. (Of course, they also signal that the event in question fails to occur.) Since they refer to boundedness rather than temporal ordering, these markers are not strictly speaking 'tenses'.

Before discussing how the notions of probability of the affirmative and temporal boundedness are related, let me briefly explain the analysis of the Swahili negative tense-aspect-modality markers on which this paper will rely. The analysis, proposed in Contini-Morava (1989), appears in (1) below.

- (1) Table 1. *The Swahili negative 'tenses'* (from Contini-Morava 1989)

OCCURRENCE NEGATED	
UNSPECIFIED FOR TIME LIMITATIONS -i	LIMITED IN TIME: AFFIRMATIVE MORE PROBABLE -ja- AFFIRMATIVE LESS PROBABLE -ku-

There are three negative tense-aspect-modality markers, *-i*, *-ja-*, and *-ku-*. They are mutually exclusive (i.e. no more than one may be affixed to a verb stem at one time), but *-i* is a suffix whereas *-ja-* and *-ku-* are prefixes to the verb stem. All three obligatorily co-occur with a negative prefix, which is the first element in the negative verb⁴.

The above analysis is intended to represent the semantic content of the Swahili negative TAM markers *-i*, *-ja-* and *-ku-*. Like most, perhaps all, natural languages, Swahili makes no morphological distinction between 'internal' negation (Aristotle's 'predicate term negation') and 'external' negation (Aristotle's 'predicate denial'). Negation may be interpreted as having either wide or narrow scope depending on context. Therefore the analysis is intentionally vague about the extent of the 'occurrence' (or 'affirmative') to which the negative TAM markers refer. It may include either the proposition expressed by the sentence in which the negative verb appears, a specific part of the sentence, or even a presupposition associated with the sentence. (For extended discussion of the debate over the semantics and pragmatics of internal/external negation, see Horn 1989, chapter 6.)

According to the semantic analysis presented in Table 1, *-i*, *-ja-* and *-ku-* share reference to a negated occurrence. Within this domain, *-i* is differentiated from *-ja-* and *-ku-* in that *-ja-* and *-ku-* describe the negated occurrence as being in effect for a limited time period, whereas *-i* is unspecified as to time limitation. What differentiates *-ja-* from *-ku-* is an assessment of the degree of probability that the event being negated might occur: *-ja-* expresses a higher degree of probability and *-ku-* a lower degree. According to this analysis, all that *-i* conveys semantically is the information that the occurrence to which it refers fails to take place. However since it belongs to a system in which it is opposed to *-ja-* and *-ku-*, *-i* tends to take on the areas not covered by *-ja-* and *-ku-*. Thus *-i* is often interpreted as referring to a negated occurrence that persists indefinitely, i.e. one that is *not* limited in time. Similarly, the use of *-i* often suggests a relatively low probability of the affirmative. I will illustrate these contrasts in the examples to follow.

3. The relationship between negation, temporal boundedness and probability of the affirmative

As I mentioned earlier, in the negative there is a strong relationship between the notion of temporal boundedness and that of affirmative probability. This is because if one claims that an event is negated for a limited period of time, it is natural to infer that at other times not included in that period the event in question could occur. This follows from Grice's (1975: 46) maxim of quantity: why mention a time limitation if the event is equally likely (or unlikely) to occur at all times? It would be perverse and misleading for me to say 'I didn't go to work last week' if I don't have a job at all. The converse also holds: if I *fail* to specify a time limitation, i.e. if I fail to use one of the markers that specifically signals this information, I also allow the inference that the event is no more likely to occur at one time than at any other, hence that it has an overall low likelihood of occurring.

In fact, however, the situation is slightly more complicated than this. There are two ways in which a negated event can be temporally bounded. The first is the one I have just been describing, namely that the *negation itself* is limited in time. This implies that at times other than the one being referred to, the event may be expected to occur. So the example 'I didn't go to work last week' is felicitous if one assumes that my failure to go to work was restricted to last week. In other words at times other than last week I usually do expect to go to work. The other way a negated event can be temporally bounded is if its *opportunity to occur* is limited in time. That is, at other times the opportunity for this event to occur does not arise. I illustrate this second type of boundedness in (2) below.

(2) Opportunity to occur restricted in time:

Akaondoka akenda zake msitu na nyika hata zikatimia siku saba, hata siku ya saba akafika katika mji mmoja mkubwa. Na yeye kwa kuwa alikuwa na mashauri yake moyoni ha-KU-ingia mjini, akafikia katika kibanda cha kizee mmoja mwanamke. Yule mwanamke ha-KU-kasiri akamkaribisha, akamfanyizia na chakula. [AB 35]

He left and went on his way through forest and bush until seven days passed, then on the seventh day he arrived at a big city. And since he had a plan in his mind he did not enter the city, he went to the hut of an old woman. The woman did not take offense [but] she welcomed him, and even made him some food.

Here the expectation that the protagonist might enter the city, i.e. the opportunity for that event to occur, arises at the time he first gets to the city. The same is true of the opportunity for the old woman to take offense at this stranger coming to her door asking for lodging. Once we have been told what the protagonist actually did instead of entering the city, and what the old woman did instead of becoming offended, we no longer continue to expect these events to occur⁵.

Example (3) illustrates the other kind of temporal boundedness I referred to earlier, namely the case in which it is the negation, rather than the opportunity to occur, that is temporary.

(3) Negation restricted in time:

Watu mjini wakaona kitu katika hewa, wasikia na kengele zinalia, wakastaajabu maana hawa-JA-ona kitu kama hiki. [AB 5]

The people in the city saw something in the air, [and] heard bells ringing, and they were amazed for they had never seen (-ja-) a thing like this.

Here we are first told that the people are seeing something, and then the action of seeing is negated, using one of the TAM markers that signal temporal boundedness. We infer that the negation applies to all times up to the point when the people first noticed the strange object flying in the air.

The distinction in meaning between -ja- and -ku- in Swahili, which has to do with degree of probability of the affirmative, is commonly exploited to convey the two kinds of temporal boundedness I have been discussing. -Ja-, which conveys a higher probability of occurrence, is more suited to messages of temporary negation, where the speaker wants to suggest that the event is likely to occur at times other than the period of negation. -Ku-, with a lower probability of occurrence, is more suited to messages of temporary opportunity, where the question of the negated event occurring at other times is not at issue. To see this difference in continuing opportunity, compare (3) with (4) below:

(4) *Walipokwenda kutazama kazi ya Hemedi wakakuta vitambaa vizima havi-KU-katwa. [AB 75]*

When they went to see the work of Hemedi they found the cloths whole, they had not been cut (-ku-).

This example comes from a story in which the Sultan is trying to find out which of two young men is his real son. As a test, he gives each of them some cloth and tells them to make a cloak out of it. The false prince happens to be the son of a tailor, so he makes a fine cloak. But Hemedi, the real prince, doesn't know how to sew, so he does nothing at all. Since the Sultan has given the youths a deadline to complete their cloaks, the question of cutting the cloth does not arise after this deadline. Knowing that Hemedi doesn't know how to sew, we do not expect him to cut the cloths later if he has not done so already. So in (4) the opportunity for cutting to occur does not extend beyond the time limit.

I have argued that the difference in meaning between -ja- and -ku- lends itself to the messages of temporary negation vs. temporary opportunity to occur. However this distinction is an *inference* from the meanings of -ja- and -ku-, not explicitly signalled by them. In some cases they simply refer to different degrees of likelihood within a (restricted) temporal period. I will show some examples of contrast between degrees of likelihood in the next section, but first I would like to illustrate the difference between temporal boundedness and lack of boundedness. This is shown in (5).

- (5) *Zuhura akieleza habari za mazishi, matanga, wafiwa na wahisani. Fulani alikuwa macho makavu, hata ha-JA-lia; fulani mwengine alivaa kanga za bibo, zimempendeza; jamani fulani kawa kizee, hata haon-I; na yule Safia naye, ndiyo nini kumpiga vijembe mwenziwe mbele za watu?* [Ppt 59]

Zuhura was telling the news about funerals and mournings, bereaved and benefactors. So-and-so was dry-eyed, didn't [even] cry (-ja-); so-and-so wore a fantastic dress, it looked great; man, so-and-so had really gotten old, couldn't even see (-i); and what about that Safia, how dare she make snide remarks to her friend right in front of people?

In (5) there are two negated events, crying and seeing. However only the first is restricted in time. The opportunity for the person referred to to cry would presumably have been limited to the time of the funeral being discussed. The use of *-ja-* in this case emphasizes the speaker's surprise at the person's undemonstrativeness; the word 'even' was added to the English translation in order to convey this affective connotation. However the other negated verb, 'see', is not similarly restricted in time. If the person being referred to has become so old that he or she can no longer see, this condition may be expected to persist indefinitely⁶.

4. Negation, stativity, and foregrounding/backgrounding

Having shown how different contexts lead to the inference of different degrees of time-boundedness of negative predicates, I would now like to turn to some of the issues I raised at the beginning of this paper, namely the claim made by some semanticists that all negative predicates refer to states, and that they are invariably backgrounded. What I want to argue is that both stativity and backgrounding are matters of degree rather than absolute properties of predicates. First, states. The examples in (6) below both contain instances of the same verb, *-jua*, which means 'to know'. I have given this verb different English glosses for reasons to be explained presently.

- (6) Action-like vs. state-like states:

a. *Wakaenda wakamwuliza mama yao, mama yao akawaambia ya kama, Kazi ya baba yenu ni kufua majembe. Wakaenda wakajifunza kazi hiyo lakini hawa-KU-ijua, wakaharibu vyuma vya watu tu, wakafukuzwa.* [AB 123]

[So] they went [and] asked their mother, [and] their mother told them, Your father's trade was making hoes. [So] they went [and] studied that vocation but they didn't learn it (-ku-), they just ruined people's tools, [so] they were kicked out.

b. *Sultani akawaambia wale vijana, Tazameni wanangu, nasikia ya kuwa ninyi mwaelewa na kazi ya kushona. Basi napenda mnishonee joho kila mtu kwa ufundi wake. Fikirini akawaza moyoni ya kuwa kushona ni kitu gani, ni mchezo tu kwangu. Nitashona joho hata watu wastaajabu. Lakini yule Hemedi ameshangaa, maana haju-I.* [AB 75]

The Sultan told the youths, Look my sons, I hear that you know the art of sewing. So I would like each of you to sew me a cloak according to his ability. Fikirini thought to himself, sewing is nothing, it's a cinch for me. I'll make a cloak that will amaze people. But Hemedi was dumbfounded, because he didn't know [how] (-i).

As far as I know, verbs of knowing are always cited as examples of states by linguists. However the differences in the negative markers in the two examples above leads to a difference in the temporal boundedness of the two negated verbs. The one in example (6a) refers to a failure to know that follows upon a period of studying to learn a trade. Once the studying is over, and the young men have been dismissed from their apprenticeship, the opportunity to know this trade has expired. The question of knowing is no longer relevant after this point. On the other hand in (6b), from the same story as example (4) cited earlier, the failure of prince Hemedi to know how to sew is not restricted in time: it is a permanent characteristic of his. This temporal indefiniteness makes the state of 'knowing' more state-like in (6b) than it was in (6a). This is why I translated the first with 'learn' rather than 'know'.

Examples (7a) and (7b) involve a similar contrast, this time with a verb of perception, *-ona*, which means 'to see':

(7) Event-like vs. state-like event:

a. *Na kule nyuma Sultani alipotazama, bandarini merikebu haipo, akafanya wazimu jinsi alivyompenda binti yake. Akatoa merikebu zake ziende katika dunia yote kumtafuta binti yake; hazi-KU-mwona, zikarudi.* [AB 151]

And back there when the Sultan looked, the ship was gone from the port, and he was crazy [with worry] out of love for his daughter. He brought out his ships and sent them all over the world to look for his daughter; they didn't see her (-ku-), [so] they returned.

b. *Jongoo akakubali akamwazima macho yake, naye akapewa miguu ya Nyoka. Basi Nyoka akatoka akaenda kutazama ngoma. Na Jongoo akawa amekaa pale pale asiende mahali maana haoni-I.* [AB 139]

[So] the Millipede agreed and lent [the Snake] his eyes, and he was given the legs of the Snake. So the Snake went to see the dance. And the Millipede stayed right there without going anywhere, because he couldn't see (-i).

Verbs of perception actually do not have a uniform categorization - some regard them as states and others as events. What I wanted to show here is that the same verb can be more or less event-like depending on whether the accompanying negative TAM marker signals temporal restrictedness or not. In (7a) the opportunity to see the Sultan's daughter expires when the searchers return home, hence seeing in this example has a more event-like quality. In (7b) on the other hand the failure of the Millipede to see is not temporally circumscribed - it lasts as long as he does not have eyes. (In fact, in the end the Snake cheats the Millipede and never gives the eyes back, as the reader may already have guessed.) So this failure to see is more state-like than the one in (7a).

Now for foregrounding/backgrounding. Of course, if one defines foregrounding strictly in terms of sequentiality, as Hopper (1979, quoted at the beginning of this paper) does, negated events could not qualify as foregrounded, since they are hard, if not impossible, to place in temporal sequence. However it is not clear that grounding can be equated with sequentiality. Not all sequential events are foregrounded, nor are all foregrounded events sequential. Moreover if 'foregrounding' means nothing more than sequentiality, why use the term 'foreground' at all? The term 'foreground' suggests prominence, relative importance, centrality to a narrative, and from this point of view negated events can be ranked.

Examples (8a) and (8b) below each has two negated verbs that 'refer' to identical periods of time. However in each case one of them is more important to the narrative than the other.

(8) Relatively foregrounded vs. relatively backgrounded negation:

a. *Kumbel pango hili ni pango alilokuwa akikaa, na kuficha vyombo vyake yule wa Unguja. Lakini kwa kuwa mmoja wa usiku, na mwingine wa mchana hawa-KU-juana, maana hawaonan-I. Wakakaa hali hii kwa muda wa miaka saba.* [AB 100]

Lo! this was the cave where the [thief] from Zanzibar was living and hiding his loot. But since one was a night-thief and the other was a daytime-thief they didn't meet each other, (-ku-), because they weren't seeing each other (-i). [And so] they lived in this situation for seven years.

b. *Kurwa alisema, 'Doto, babu! nilipokuwa nikirudi, njiani niliona watu wanajenga banda kama wanjizatiti kwa ngoma leo jioni. Basi kama unataka kwenda twaa hizi pesa ukatumie.' Doto ha-KU-jibu cho chote wala ha-IA-geuka kumtazama.* [KD 20]

Kurwa said, 'Hey Doto! on my way home, on the road I saw some people building a shed as if they were getting ready for a party this evening. So if you want to go, take this money and use it.' Doto didn't answer (-ku-) anything and didn't [even] turn around (-ja-) to look at her.

(8a) comes from a story about two thieves. One steals in the daytime and the other at night. It happens that they both hide their stolen goods in the same cave, but as example (8a) says, they fail to meet because they fail to see each other. Since both the failure of seeing and the failure of meeting apply to the same seven-year time period, why did the author of the narrative mark these verbs with different TAM markers? Here the choice of TAM markers is motivated by a difference in degree of foregrounding between the two negative verbs, which is appropriately inferred from the contrast in meaning between -ku- and -i. The expectation that the thieves might meet is set up in the first sentence of the passage, where it is explained that they were using the same cave to hide their booty. This expectation is then forestalled by the verb marked with -ku-, which signals both temporal boundedness and some contrast with expectation of the affirmative. Once we have been given the information that the thieves failed to meet, and the reminder that they were active at different times of the day, the further explanation that they failed to see each other is almost redundant. This is why the verb of seeing is

marked with *-i*, which is neutral to both temporal boundedness and degree of affirmative expectation. Further evidence that the failure of the thieves to meet is more central to the narrative than their failure to see each other is the fact that the negation of seeing occurs in an explanatory clause. In fact the failure to meet is so important that the speaker elaborates with two explanatory clauses, including the first clause in the sentence.

Example (8b) also contains two negative verbs that 'refer to' the same period of time, since both describe potential responses to the protagonist's direct address. But the author has differentiated between the negative verbs by signalling that the failure of turning to look (marked by *-ja-*) contrasts more strongly with one's expectations than the failure to answer (marked by *-ku-*). In this case the difference in prominence attributed to the two negative verbs is motivated by conventions of politeness, which dictate that an offer should be acknowledged at least with a non-verbal response, if not with a verbal one. The failure to turn around is more remarkable in this context because it constitutes a minimal acknowledgment of being addressed and its omission in this context is distinctly rude.

Note that the choice between *-ja-* and *-ku-* in example (8b) cannot be explained in terms of continuing opportunity to occur vs. lack of such opportunity (in contrast with examples 3 and 4 discussed in Section 3 above). There is nothing in the context to suggest that the event marked by *-ja-* (turning around) is expected to happen later whereas the one marked by *-ku-* (answering) is not. In fact, in the continuation of the story the speaker persists until she finally persuades Doto to accept the money and go to the party. However no further mention is made of Doto either replying or turning around (though she may well have done both in order to accept the offer); it is simply stated that she agreed and took the money.

As a final example of 'contemporaneous' negative verbs that differ in centrality to the narrative, rather than in continuing opportunity to occur, consider the following:

- (9) *Hapo tena walikwenda kwenye chumba cha kulia. Wakati huo zilikuwepo sahani za njugumawe na vikombe vya chai, na vipande vya mikate ya bofulo. Baada ya kumaliza dua Maryam alikaa na kwa njaa aliyokuwa nayo ha-JA-weza kutambua kuwa chakula kilikuwa na chumvi nyingi, akaimaliza sahani na kunywa chai ambayo ha-KU-weza kujua ilikuwa ya mkandaa au ya maziwa, bali aliigubia yote na kushukuru. [PP 31]*

Then they went again to the dining room. This time there were plates of peanuts and cups of tea, and pieces of bread. After the prayer Maryam sat down and because of the hunger she had she couldn't (*-ja-*) notice that the food was too salty, she finished the plate and drank the tea which she couldn't (*-ku-*) tell whether it was plain or with milk, instead she gulped down everything and was content.

This example is especially interesting because the negated verbs are repetitions of the same lexical item, *-weza* 'be able', in apparently parallel circumstances, yet they differ in TAM marking. In this context, too, it seems that the reason has to do with degree of contrast with expectation rather than with continued opportunity to occur beyond the time in question. The example comes from a story

about a country girl's first day at a boarding school in the big city. The story chronicles the heroine's difficult adjustment to the unfamiliar routine of the school. For example, she finds the first meal so unappetizing that she gives her food away to another girl. However by dinnertime, as described in (9), she is so hungry that she eats all the food without even being able to notice its taste, nor does she notice the taste of her drink. Since the heroine's aversion to the institutional food has already come up earlier in the story, whereas nothing has been said before about drink, her inability to notice the taste of the food contrasts more sharply with our expectations based on her earlier behavior than does her failure to notice the drink. On the other hand, there is no particular reason to expect her to begin noticing the taste of either food or drink once the dinner is over.

Examples (8b) and (9) thus illustrate both the graded nature of backgrounding, as applied to negated events, and the contrast in meaning between *-ja-* and *-ku-*. The connection between degrees of contrast with expectation (the basis for the opposition between *-ja-* and *-ku-*) and degrees of foregrounding/backgrounding has to do with relative salience in comparison with other events in the discourse. All else being equal, an event that contrasts strongly with one's expectations is more likely to attract attention, hence be regarded as central, than an event that contrasts less strongly with one's expectations.

5. Meaning vs. inference

In (10) below I have summarized the most frequent temporal interpretations of the Swahili negative TAM markers:

(10)		
signal	<u>meaning</u>	<u>inference</u>
<i>-ja-</i>	TIME LIMITED, AFFIRMATIVE MORE EXPECTED	high contrast with expectation, continued opportunity for affirmative beyond time limit, or high a priori likelihood of affirmative within time limit
<i>-ku-</i>	TIME LIMITED, AFFIRMATIVE LESS EXPECTED	some contrast with expectation, but opportunity for affirmative to occur does not extend beyond time limit
<i>-i</i>	UNSPECIFIED FOR TIME LIMIT OR EXPECTATION OF AFFIRMATIVE	low contrast with expectation, negative situation could continue indefinitely; generalized, 'adjectival' or state-like negation as opposed to context-bound, 'event'-like negation

[From Contini-Morava 1989]

It should be noted that the interpretations in the right hand column are *inferences* based not only on the individual meanings of the TAM markers, but also on the oppositions between them. For example, the question whether the expectation that a negated event may occur extends beyond a certain time limit, or whether both the negation and the opportunity for the event to occur fall within the same time limit, is not explicitly resolved by the meanings of the TAM markers themselves. What *-ja-* and *-ku-* explicitly signal is a difference in degree of expectation of the affirmative, together with a claim that the negated occurrence is temporally bounded. This difference is consistent with a contrast between continuing opportunity to occur *vs.* limited opportunity to occur, and therefore these are frequent inferences from the meanings of *-ja-* and *-ku-* respectively (and this is why *-ja-* is typically described as the 'not yet tense' in traditional grammars of Swahili, cf. Ashton 1944: 72). However these meanings are also consistent with other inferences, for example, relative surprise at the failure of an event to occur, irrespective of the question of its continuing opportunity. That *-ja-* and *-ku-* can also suggest this contrast is shown in example (8b) and (9) in the last section.

Similarly, the inferences from the meaning of *-i* are much 'richer' than the content of *-i* itself, which signals nothing explicit about either temporal boundedness or degree of expectation of the affirmative. These inferences are based not so much on the semantic content of *-i* as on the fact that it belongs to a closed system of signs in which it is opposed to *-ja-* and *-ku-*. A speaker's choice of *-i* may therefore be interpreted as a rejection of the inferences commonly associated with the other members of the opposition.

The distinction that I have drawn between meaning and inference depends on the assumption that linguistic signs can be defined in terms of a common core of meaning that remains constant across contexts. In this view the meaning of a sign by itself is more abstract than any individual interpretation it may be given in a particular context. The specific contextual interpretations of signs result from the interaction between their meanings, those of accompanying signs in the discourse, and pragmatic principles. This assumption is shared by such 'sign-based' theories of language as the Columbia school (cf. Diver 1975; Kirsner 1979; Tobin 1989; Reid forthcoming) and the Jakobsonian school (cf. Jakobson 1936; Waugh 1976; van Schooneveld 1978; Waugh and Rudy forthcoming). Such an approach differs sharply from traditional views of linguistic signs as inherently polysemous (a recent example is 'prototype theory' as developed by Lakoff 1987). Space does not permit extended discussion of invariant meaning *vs.* polysemy here (see Contini-Morava 1989: 33-44 for fuller discussion), but since the issue came up at the conference in whose proceedings the present paper appears I would like to say a few words about it.

The weaknesses of a polysemy approach are most apparent in the analysis of closed systems of oppositions such as those typical of grammatical morphology. Where a system of oppositions is both obligatory (cf. Boas 1911; Jakobson 1959) and closed, the choice of one member of the opposition entails rejection of the others in a much stronger way than, say, the choice among various lexical items. Therefore in such a closed system the boundaries between the meanings in the system are likely to be strongly reinforced. However approaches that treat meanings as indefinitely large collections of senses that share no common core of in-

variant content offer no principled way of delimiting the range of meaning of a sign, and therefore of explaining why a speaker would choose one sign rather than another. In fact a polysemy approach makes it impossible not only to define the meaning of a form, but also to decide whether one has a single form at all, as opposed to a collection of homonyms. A system of communication in which both signals and meanings are indeterminate seems inefficient at best.

5. Conclusion

In conclusion, I have suggested that linguists concerned with the temporal relationships between events in narrative have not paid enough attention to negated predicates, because they have assumed a priori that negated predicates cannot fit on a time line. Some have dismissed negated predicates as background; others have uniformly classified them as states. I have argued that negated predicates *can* be connected to a time line, via the general pragmatic function of negation in discourse, which is to forestall a possible expectation of the affirmative. Specific inferences about temporal contours of negated predicates come from accompanying verb morphology and temporal expectations set up in the discourse context. I have also argued that uniform categorization of negated predicates as 'background' or 'states' is oversimplistic: both backgrounding and stativity are matters of degree.

It is also important to emphasize that the discourse functions of grammatical morphology can best be investigated against the background of an explicit analysis of the semantic content of that morphology. Such an analysis is necessarily language-specific, as is the morphology itself. This is not to deny the usefulness of cross-linguistic comparisons; however such comparisons will be most productive if based on a clear understanding of the semantic oppositions encoded into the grammars of the languages being compared.

In closing I would like to quote a Swahili proverb that seems especially pertinent to the present topic (and also contains two examples of the negative TAM suffix *-i*): *Haiwi haiwi huwa* 'it doesn't happen, it doesn't happen, [but eventually] it happens'.

Notes

1. In fairness to Labov I should note that although negatives are apparently excluded from the definition of 'narrative' given in his 1971 work (cited at the beginning of this paper), this is not the only sense in which he uses the term 'narrative' in that paper. In fact he uses this term ambiguously, with both a stricter and a looser interpretation. In the strict sense, narrative includes only those clauses that denote actual events in temporal sequence (what Labov calls 'complicating action'). In the looser sense Labov uses 'narrative' to refer to the whole speech event in which such clauses are embedded, which also includes orienting and evaluative information that makes the complicating action relevant to the speaker's communicative and interactional goals. Negated predicates are only excluded from the stricter

definition of narrative; within the broader interpretation Labov describes them as a type of evaluation (see pp. 380-387). I would like to thank Anna Fuchs (p.c.) for reminding me of this point.

2. For example, in the literature on the formal semantics of tense in discourse authors typically illustrate their analyses with invented discourse fragments, such as the famous 'donkey sentences' introduced by Geach (1962) (see for example Kamp 1981; Partee 1984). These illustrative fragments rarely if ever contain negative predicates, and even when they do, the negative predicates are either classified as states without further discussion or not explicitly discussed at all. Another example is a recent collection of papers devoted to temporal structure in sentence and discourse (Lo Cascio and Vet 1986), in which not one of the authors explains how negated predicates relate to the various theoretical frameworks proposed.
3. In the course of this paper I will use terms such as 'likelihood', 'opportunity', 'chance', or 'expectation' to describe the probability that an event being negated might occur. No theoretical significance should be attached to this variation in terminology. Specific degrees of probability of occurrence (such as those suggested by the contrast between 'chance' and 'likelihood'), or degree of involvement of the addressee (as suggested by the word 'expectation') vary according to context. Although these English words differ in meaning, they have a common reference to greater than zero probability of occurrence, and this is all I intend by their use.
4. The structure of the Swahili negative verb is as follows:
 Neg.Pfx. + Subj.Pfx. + (TAMpfx.) + (Obj.Pfx.) + Vstem + TAMSfx.
 For example:
 a. *ha - tu - ja - sem - a*
 Neg.Pfx.-Subj.1pl.-TAMpfx.-Vstem'say'-TAMSfx.'indic.'
 'we have not [yet] said'
 b. *ha - tu - sem - i*
 Neg.Pfx.-Subj.1pl.-Vstem'say'-TAMSfx
 'we do not say/are not saying'
 The TAM prefixes *-ja-* and *-ku-* co-occur with the indicative TAM suffix *-a*; the TAM suffix *-i* substitutes for *-a* and cannot co-occur with either *-ja-* or *-ku-*. For further discussion of these co-occurrence restrictions, see Contini-Morava (1989: 51-9).
5. Actually, this is only strictly true of the second negated verb in this example. In the case of failing to enter the city, the explanatory clause 'since he had a plan in his mind' suggests that the hero does intend to enter the city eventually, i.e. that he is only deferring his entry for reasons of his own. However this inference comes from the explanatory clause and not from the negated predicate itself. If the explanatory clause were deleted, the question of entering the city later in the story would be left open.
6. Note that the English modal 'couldn't' is not literally present in the Swahili. I added it to the translation because it makes more sense in English than the plain indicative 'didn't see'. The past tense in the English translation is also an 'exuberance' (cf. Becker 1986: 330): Swahili *-i* does not convey information about an ordering relationship between event time and the moment

of speaking. It would also have been possible to translate *haon-I* as 's/he cannot see', indicating that the failure to see persists at the moment of speaking. The reason I used the past tense in the translation is that this verb is embedded in an account of past events and the past tense sounds more natural in this context in English.

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FRAME AND REFERENCE TIME IN COMPLEX SENTENCES

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Abstract

Complex sentence tokens differ as to whether and how one clause is relevant to the temporal interpretation of the other. The purpose of this paper is to demonstrate such differences between complex sentences (tokens and types). In 1. some basic notions are discussed; it is argued that the Reichenbachian time of reference comprises at least three different notions, and that the main function of finite tenses is to set the temporal frame of the episode described in the sentence/clause, in cooperation with frame adverbials, whereas the temporal ordering between that episode and some other specific episode or time ('reference time') is expressed or simply inferred by other means. 2. is concerned with the relations between temporal clauses and their matrix clauses. The following sections discuss the 'anchoring' possibilities for non-temporal subordinate clauses and their matrix clauses.*

1. Some basic concepts

I assume that processing or understanding a sentence or text includes building up a picture or representation of the temporal relations between the episodes described and/or their approximate location on the time axis. I use the term 'episode' indiscriminately for events - accomplishments and achievements -, i.e. bounded episodes, and states or activities, i.e. unbounded episodes.¹ That is, for each sentence in a discourse, the episode(s) it describes will have to be located as lying partly or totally within a specified time interval or at least as standing in a specific temporal relation to some other episode. And following Rohrer (1986) among others, I assume that in order to describe how this is done, the Reichenbachian point of reference (Reichenbach 1947) has to be split up into at least three different notions.

1.1. Frame of reference and finite tenses

First, there is what I shall call the (temporal) frame of reference of a sentence (or text), i.e. a specific time interval that completely or partly includes the episode(s) described in the sentence (text). The frame of reference, which corresponds roughly to Rohrer's temporal location point (Rohrer 1986: 85) and Bäuerle's (1979) 'Betrachtzeit' ('time looked upon'), is specified by the tenses in cooperation with temporal frame adverbials like *yesterday*, *next year*, *1988*. But adverbials differ considerably in the ways they 'pick out' the intervals referred to:² they may refer

absolutely as 1988 or relative to a contextual parameter, i.e. deictically (rather: indexically) or anaphorically as in *yesterday* and *a year later*; they may define a lower and/or an upper bound rather accurately as in the above mentioned examples or leave one or the other more or less open as in *after 1988* and *before 1988*; in the latter case, the semantically missing time 'ante quem' or 'post quem' may be pragmatically inferred from the context. The frame of reference may even be very vaguely defined as by adverbials like *soon* or *a moment ago*. At any rate, however, the frame of reference must be a proper subinterval of the whole time line - otherwise it would not function as a means to locate the described episode temporally.

Thus the past tense relatively to the speech time restricts the possible frames of reference to intervals falling within the 'past', i.e. the time lying distally before the speech time³. For pragmatic reasons, the actual frame of reference will normally have to be explicitly specified by an adverbial, unless there are other contextual clues to narrow down the very broad, general frame of reference licensed by the tense, viz. the 'whole' past.

And relative to the speech time the future tense specifies the time interval beginning with the speech time as a general frame of reference, i.e. the interval of which the actual frame of reference must be a subinterval. This again will either be a distal subinterval specified in the context ('definite future'); or it is understood as a nondistal subinterval of an appropriate length with respect to the episode(s) it is taken to contain ('indefinite future'); cf. *Anna wird morgen ankommen* 'Anna will arrive tomorrow' vs. *Es wird regnen* 'It will/is going to rain'.

In my opinion however, the present tense does not define a frame of its own or restrict the possible frames of reference - at least not in the same sense as the other tenses. But it may in contradistinction to the other tenses use the speech event itself as a kind of default reference point around which the episode described must be located if it is not located with respect to a frame or some other reference point specified in the context of utterance.⁴

1.2. Time of evaluation

Secondly, we have the reference point understood as an evaluation point, i.e. a given time which is taken as a kind of starting point in order to compute the time referred to by a contextrelative temporal expression (tense or time adverbial). Thus understood, a reference point is semantically demanded by the temporal expression itself - it is an index, an argument of functions from time intervals to time intervals: in order to know which part of the time axis is referred to by a certain occurrence of the past or future tense, we have to use the speech time as a starting point. And in order to compute the frame established by e.g. the adverbials *soeben* 'just' and *am nächsten Tag* 'the next day' we have to get a specific time from which to count backward and forward, respectively. Depending on the nature of the expression to be evaluated, the evaluation point may be identified as the speech time (cf. *yesterday*), as an interval referred to by a time adverbial or as the time of an event described in the context; thus, the adverbial *two weeks later* in (1a) may be evaluated with respect to the time referred to by the adverbial *on May*

21th, whereas *a moment later* in (1b) takes the event time of the preceding sentence as its evaluation time.

- (1a) Anna left for Rome *on May 21th*. *Two weeks later*, she was back in Amsterdam again.
(1b) Anna left the room and came back again *a moment later*.

1.3. Inferred reference time vs. time of evaluation

Thirdly, there is the inferred point of reference, that is the point of reference understood as the time of an episode introduced explicitly in the context or given in the situation which the episode described in the sentence is taken to overlap or closely follow, depending on the exact nature of the episodes involved, i.e. their boundedness or unboundedness, among other things. (For this rather vaguely defined relation I use the term *overlap**; see below.) As I see it, reference points of this kind normally are not semantically demanded like the evaluation time of context-relative temporal expressions, but rather pragmatically inferred; the reference point in this case is not the argument of a function from time intervals to time intervals, but argument of a specific relation between episodes, the other argument being the episode described in the sentence itself. The difference becomes clear in so called extended flashbacks, as noticed by Kamp & Rohrer (1983) and Rohrer (1986):

- (2) John reached the top about noon. He had got up at half past five, had prepared his lunch, had set off and had passed the base camp before seven o'clock.

The non-finite *perfect tense*, i.e. the tense expressed by the periphrastic construction *have* + past participle, may be viewed as a contextrelative temporal expression, as a kind of relative (nondistal) past, which specifies an interval ending with some given time as a frame containing the episode(s) described.⁵ Alternatively, following Löbner (1988) and Herweg (1989), constructions in the perfect may be viewed as denoting a specific kind of relative state - the state resulting from the event denoted by the main verb - which must be located around a reference point. In the most trivial case, it is the state holding at any time *t* for which it is true that a main verb episode occurred before *t*. In the following, I shall refer to such states by the term 'perfect state'. In (2), then, the episode time of the first sentence clearly serves as the demanded reference point in the sense of 1.2., i.e. as the evaluation time of the past perfect sentences/verb phrases. On the other hand, the events described in these sentences/verb phrases are understood as temporally ordered in a way corresponding to their linear ordering, i.e. the event time of each of the verb phrases *had got up...*, *had prepared...*, *had set off* and *had passed...* serves as an inferred reference point of the following sentence, in the second sense of this term.

Rohrer (1986) and Kamp & Rohrer (1983) accordingly distinguished 'reference point' in this second sense from 'temporal perspective point' - the time from which the episodes are 'seen'. But as I am not quite comfortable with their temporal

perspective point, I shall continue to speak of a reference point in both cases, when necessary specifying the exact nature of the reference point.

1.4. Temporal anchoring

As for the term anchoring, I shall say that a sentence or clause (S_2) is *temporally anchored* in some other sentence/clause (S_1) in the same text if an episode described in the latter (S_1) serves as a reference point for an episode described or a temporal expression contained in the former (S_2). Depending on the kind of 'thing' being anchored, one may distinguish between *tense*, *adverbial* and *episode anchoring*. And it follows from the inherent ambiguity of the notion 'reference point' that double or even multiple anchoring can occur. The third sentence/verb phrase of (2), for instance, uses the speech time for the interpretation of the finite past tense, thus establishing the 'past' as the general frame of reference; it is anchored in the first sentence for the interpretation of the non-finite perfect tense (whether the episode time or the frame of reference of the first sentence is taken as evaluation point of the perfect), thus placing the described episode, the preparation of lunch, before John's reaching the top (at noon); and it is episode anchored in the immediately preceding sentence inasmuch as the preparation of lunch must be taken to overlap* (here: closely follow) John's getting up.

It should be stressed that two sentences or clauses may be *temporally linked* together - temporally connected - without one being anchored in the other. This is the case if the specific temporal frame of one sentence is a proper part of the frame of the other or if they share the same frame without there being specified or inferred any ordering relation between the episodes in question.

For instance, the four clauses in (3) are temporally linked together by a common frame of reference, but no one is anchored in any other.

(3) Last year, Ann and Pete married, Doris and Hans divorced, I got a new job, and in April we went to Amsterdam.

1.5. Overlapping*

The relation overlap* introduced above (1.3.) may be defined as follows:

(4) An episode e_2 overlaps* another episode e_1 iff e_2 temporally overlaps or closely follows e_1 .⁶

It should be noted that for unbounded episodes, the relations overlap and overlap* are coextensive, i.e. ' e_2 overlaps e_1 ' and ' e_2 overlaps* e_1 ' are equivalent expressions, for obvious reasons: In order for e_2 to be located after e_1 without overlapping it, e_2 must have a definite beginning and e_1 a definite end; that is, both must be conceived of as bounded - initially and finally, respectively -, i.e. as events. Conversely, let us assume that the episode of an imperfective sentence⁷ in a certain context for some reason must be taken to succeed its reference time without over-

lapping it; in that case the sentence in question necessarily takes on a perfective (inchoative) meaning, describing an episode bounded to the left, i.e. with a starting point. This is the case in the example discussed by Hinrichs (1986) and Partee (1984):

- (5) Jameson entered the room, shut the door carefully, and switched off the light. It was pitch dark around him, because the Venetian blinds were closed.

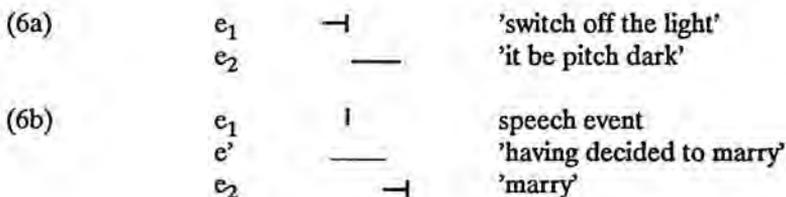
Both clauses in the second sentence are inherently imperfective, but whereas the episode 'the Venetian blinds be closed' may very well overlap or even include the reference point introduced by the event 'switch off the light', this event clearly marks the beginning of the episode 'it be pitch dark around him', thus turning it into a (left) bounded episode. If on the other hand a perfective sentence S_2 is episode-anchored in another perfective sentence S_1 , as illustrated by the clauses in the first sentence of (5), the episodes (events) described will normally be taken to succeed each other closely rather than overlap, unless e_2 is a subevent of e_1 .⁸ In any case, however, the conditions of the overlapping* relation are fulfilled.

As for the notion of close precedence/succession involved in the definition of overlap*, it should be interpreted rather pragmatically, like e.g. the meaning of the time adverb *then*. But the relation must be taken to hold in at least the following two cases:

- (6a) e_2 follows e_1 closely if (the end-point of) e_1 marks the beginning of e_2 , i.e. if e_2 is bound to the left by e_1 , as illustrated in the second sentence of (5); cf. Fig. 1.
- (6b) e_2 follows e_1 closely if e_2 is an event and e_1 completely precedes e_2 , but overlaps an episode e' which is bounded to the right by e_2 and constitutes a kind of natural forerunner or necessary precondition for e_2 - if not simply a phase of e_2 itself.

According to (4) and (6b) the event denoted by the present tense utterance *Anna und Peter heiraten* 'Anna and Peter marry/are going to marry' may be said to overlap* the speech time although Anna and Peter are not getting married at that time. The present tense is well motivated only if at speech time, Anna and Peter have already decided to marry; and having decided to marry is a characteristic state anterior to the act of marrying; cf. Fig. 1.

Figure 1.



1.6. Anchoring possibilities in complex sentences: overview

Complex sentences may be classified as to whether and how one clause is relevant to the temporal interpretation of the other, i.e. according to the linking and anchoring relations between the constituent clauses. (I use the term 'constituent clause' as a cover-term for matrix or main and subordinate clause.) Confining ourselves to the anchoring relations, there are the following logical possibilities:

- (i) the main clause is anchored in the subordinate clause;
- (ii) the subordinate clause is anchored in the main clause;
- (iii) neither is anchored in the other.

Although in a certain sense belonging to type (i), sentences containing temporal clauses make a group of their own in that the temporal clause plays the role of a temporal adverbial with respect to its matrix clause.⁹

I shall first discuss some interesting linking aspects of temporal clauses and then go on to illustrate the above mentioned anchoring relations within other sentence types.

2. Relations between matrix and subordinate temporal clause

Temporal subordinations explicitly relate the episode(s) or perfect state(s) described in the matrix clause to the episode(s) or perfect state(s) described in the subordinate temporal clause, the exact nature of that relation being determined by the meaning of the subjunction in question. Thus, the temporal clause like a frame adverbial serves to locate the episode(s) described in the matrix clause temporally, albeit relative to another episode or other episodes and not directly with respect to the time axis. In a certain sense, then, one might say that the main clause episode(s) or perfect state(s) are anchored in the subordinate clause episode(s) or perfect state(s). But the anchoring is part of what is explicitly expressed in the sentence and not only inferred from the context. The German temporal subordinations *als* and *wenn*, for instance, like Engl. *when* locate the matrix clause episode(s) or perfect state(s) as overlapping* the subordinate clause episode(s) or perfect state(s)^{1,10} that is, the relation which these temporal subordinations explicitly predicate of main and subordinate clause episodes is the same as the relation taken to hold between an episode and its inferred reference point as defined in 1.3. *Bevor* 'before' and *nachdem* 'after', on the other hand, have the main clause episod(es) completely precede and succeed the subordinate clause episode(s), respectively.

As shown in details by e.g. Herweg (1989), some subordinations put more or less severe restrictions on the so called aspectual nature (the aktionsart) of the constituent clauses, especially the subordinate clause, and may accordingly force a perfective interpretation upon imperfective clauses, and vice versa (cf. 1.5. above) - a matter that I cannot go into here. More interesting in the present context are the constraints temporal subordinations may put on the temporal frame of the sentence and, on the whole, the importance of a common frame.

Rohrer observes that "a temporal clause always has the same 'Zeitstufe' (pa, pr or fu) and the same temporal perspective as its main clause" (1986: 92). That

is, whereas the matrix clause depends on the subordinate clause for a reference point (locating a perfect state or an episode), the general temporal frame ('Zeitstufe') encompassing the temporally linked episodes or perfect states is expressed by the main clause tense, normally using the speech time itself as a primary reference point; cf. (7). Here the future tense in the main clause sets the non-distal future as the frame of reference, and the subjunction *wenn* locates the main clause episode as overlapping* - in this case closely following - the subordinate clause episode which itself remains unlocated within the reference frame.¹¹

- (7) *Wenn (Sobald) du zurückkommst, werde ich dir was erzählen*
'When (As soon as) you come back, I'll tell you something.'

The common frame of reference may be further specified outside the complex sentence, as in (8)-(10); here the adverbial in the first sentence defines a temporal frame which is implicitly taken over by the second, complex sentence (i.e. the latter is temporally linked to but not anchored in the former, cf. 1.4.).

- (8a) Am 12. April gibt das Philharmonische Orchester ein Bruckner-Konzert. *Wenn (Sobald) seine Romantische Symphonie gespielt wird, gehe ich raus/ werde ich rausgehen.*

'On April 12th, the Philharmonic Orchester gives/will give a Bruckner concert. *When (As soon as) his Romantic symphony is played, I'll go outside/leave.*'

- (8b) Am 12. April gab das Philharmonische Orchester ein Bruckner-Konzert. *Als (Sobald) seine Romantische Symphonie gespielt wurde, ging ich raus.*

'On April 12th the Philharmonic Orchester gave a Bruckner concert. *When (As soon as) his Romantic symphony was played, I left.*'

- (9a) Am 12. April gibt das Philharmonische Orchester ein Bruckner-Konzert. *Ich werde rausgehen, bevor seine Romantische Symphonie gespielt wird.*

'On April 12th, the Philharmonic Orchester gives/will give a Bruckner concert. *I'll leave before his Romantic symphony is played.*'

- (9b) Am 12. April gab das Philharmonische Orchester ein Bruckner-Konzert. *Ich ging raus/bin rausgegangen, bevor seine Romantische Symphonie gespielt wurde.*

'On April 12th, the Philharmonic Orchester gave a Bruckner concert. *I left before his Romantic symphony was played.*'

- (10) Im Winter wurde ein Reihe Konzerte gegeben. *Wenn Bruckner gespielt wurde, blieb ich weg, sonst bin ich meistens hingegangen.*

'During the winter a series of Bruckner concerts were given. *When Bruckner was played, I stayed away, otherwise I used to go.*'

The subjunction itself may constraint the possible frames of reference in various respect. *Als*, for instance, demands a frame in the past, and furthermore presupposes

that exactly one subordinate clause episode occurs within that time; cf. (8b). *Wenn*, on the other hand, does not constrain the location of the frame directly, but presupposes that the frame is big enough to accommodate more than one subordinate clause episode or perfect state, as in (10), unless it is located in the future, as in (7), (8a). (In Fabricius-Hansen & Sæbø 1983 it is argued that the 'particularizing' futurate reading of temporal *wenn* shown in (7)-(8a) should probably be considered secondary to or derived from the generalizing reading found in (10)).

(11)-(13) show that complex sentences do not have to be linked to preceding sentences for a more restricted temporal frame: they may on the contrary contain a specification of their own, either in the subordinate clause as in (11a)-(13a) or in the matrix clause as in (11b)-(13b). In (11a), for instance, the underlined adverbial *heute abend* contained in the *wenn*-clause obviously specifies a frame for the subordinate and for the main clause episode as well; the same holds for the adverbial belonging to the main clause and preceding the subordinate clause in (11b); and correspondingly for the sentence pairs (12a-b) and (13a-b).

- (11a) *Wenn (Sobald) wir heute abend im Zelt sitzen und darauf warten, daß es im Topf zu kochen anfängt, werde ich von meinem Verwandten Ivitaq erzählen.*
 'When (As soon as) we this evening sit/are sitting in the tent and wait(ing) for the pot to boil, I'll tell about my relative Ivitaq.'
- (11b) *Heute abend, wenn (sobald) wir im Zelt sitzen und darauf warten, daß es im Topf zu kochen anfängt, werde ich von meinem Verwandten Ivitaq erzählen.*
 'This evening, when (as soon as) we sit/are sitting in the tent and wait(ing) for the pot to boil, I'll tell about my relative Ivitaq.'
- (12a) *Als wir gestern abend im Zelt saßen und darauf warteten, daß es im Topf zu kochen anfang, erzählte ich von meinem Verwandten Ivitaq.*
 'When we yesterday evening sat/were sitting in the tent and wait(ing) for the pot to boil, I told about my relative Ivitaq.'
- (12b) *Gestern abend, als wir im Zelt saßen und darauf warteten, daß es im Topf zu kochen anfang, erzählte ich von meinem Verwandten Ivitaq.*
 'Yesterday evening, when we sat/were sitting in the tent and wait(ing) for the pot to boil, I told about my relative Ivitaq.'
- (13a) *Die Machtverschiebungen müssen unter verlustreichen Auseinandersetzungen wieder rückgängig gemacht werden, wenn später alle Großmächte über die neuen Waffen verfügen.*
 'The power displacements must/will have to be neutralized under serious controversies, when later on all super powers have the new weapons at their disposal.'
- (13b) *Die Machtverschiebungen müssen später, wenn alle Großmächte über die neuen Waffen verfügen, unter verlustreichen Auseinandersetzungen wieder*

rückgängig gemacht werden.

'The power displacements must/will have to be neutralized under serious controversies later on, when all super powers have the new weapons at their disposal.'

There is, however, a rather marked difference between the two alternatives. When the frame adverbial occurs within the temporal clause, as in (11a)-(13a), the framing of the episode pair belongs to the presupposed or background information, whereas the temporal relation between the episodes in question is focused, i.e. part of what is actually claimed. When the frame adverbial occurs in the main clause as in (11b)-(13b), it is the other way round: It is explicitly claimed that the main clause episode falls within the specified frame, whereas its specific temporal relation to the subordinate clause episode figures as a kind of supplementary information, somehow comparable to a non-restrictive relative clause.

The relationship between temporal clauses with a matrix clause adverbial specifying the frame of reference, on one hand, and relative clauses on the other hand is also shown by the fact that, apparently, a frame adverbial contained in the main clause must precede the subordinate clause in order to set a common frame; otherwise it will - or at least may - be taken to specify a frame for the main clause alone; and in that case, the subordinate clause may no longer be interpretable as a normal temporal clause. The result will be a more or less odd sentence, as in (11c), (12c), unless the subjunction, being inherently ambiguous between temporal and non-temporal readings like wenn,¹² switches to an non-temporal, e.g. conditional, reading as in (13c) vs. (13a, b).

(11c) ?Wenn (?Sobald) wir im Zelt sitzen und darauf warten, daß es im Topf zu kochen anfängt, werde ich heute abend von meinem Verwandten Ivitaq erzählen.

?When (?As soon as) we sit/ are sitting in the tent and wait(ing) for the pot to boil, I'll tell about my relative Ivitaq this evening.'

(12c) ?Als wir im Zelt saßen und darauf warteten, daß es im Topf zu kochen anfang, erzählte ich gestern abend von meinem Verwandten Ivitaq.

?When we sat/ were sitting in the tent and wait(ing) for the pot to boil, I told about my relative Ivitaq yesterday evening.'

(13c) Wenn alle Großmächte über die neuen Waffen verfügen, müssen die Machtverschiebungen später unter verlustreichen Auseinandersetzungen wieder rückgängig gemacht werden.

'If (*When) all super powers have the new weapons at their disposal, the power displacements must/ will have to be neutralized under serious controversies later on.'

Similarly, although *nachdem* probably should not be considered inherently ambiguous, it nevertheless takes on a causal rather than a temporal meaning in (14), where the condition of a common temporal frame is not fulfilled (cf. Herweg 1989). The reason seems to be that the ordering relation between the subordinate and main

clause episode which is normally introduced by the subjunction itself, is in this case already established indirectly through the temporal relation between the different frames expressed by the tenses and frame adverbials in the respective clauses: 'yesterday' is anterior to 'tomorrow', and the same relation of course holds for the bounded episodes located within those intervals.

- (14) *Nachdem* du mir (gestern) geholfen hast, werde ich dir (morgen) helfen.
After you helped me (yesterday), I shall help you (tomorrow).

So we may conclude that a temporal frame common to subordinate and main clause is a precondition for a truly and exclusively temporal reading of so called temporal subjunctions,¹³ without a common frame, the subjunction cannot link the episodes directly. The general frame of reference is expressed by the tense of the matrix clause which the tense of the subordinate clause has to conform with ('consecutio temporum'). A more specific frame may be expressed adverbially within the subordinate clause, or within the matrix clause provided that the adverbial precedes the subordinate clause. Within the common frame of reference the subjunction locates the main clause episode(s) or perfect state(s) relative to the subordinate clause episode(s) or state(s) in a specific manner which is part of the meaning of the subjunction. The subordinate clause episode itself is inherently unlocated, i.e. indefinite, not connected to any specific point(s) within the given frame.

3. Matrix clause anchoring in a nontemporal subordinate clause

The episode time of a nontemporal subordinate clause may serve as a reference point for its matrix clause, i.e. as an evaluation point for a contextrelative (anaphorically used) temporal adverbial or non-finite tense in the main clause or as a point of time which the main clause episode or perfect state is taken to overlap*. Thus the adverbial *von diesem Augenblick an* 'from that moment on' in (15a) is evaluated with respect to the time of the episode described in the conditional clause ('adverbial anchoring' according to 1.4.); and in (16a)-(17a) the main clause episode is taken to overlap* the episode described in the subordinate clause - the speaker/Ann probably will leave/has left the concert while the Romantic Symphony is/was being played or maybe announced ('episode anchoring' according to 1.4.).

- (15a) Man kann getrost annehmen, daß, *falls/wenn* Beizmenne diese Frage gestellt hat, von diesem Augenblick an keinerlei Vertrauen mehr zwischen ihm und Katharina entstehen konnte.
 'One may safely assume that *if* Beizmenne asked that question, there could from that moment on be no trust between him and Katharina.'
- (16a) Am 12. April gehe ich in ein Bruckner-Konzert. Aber *falls/wenn* seine Romantische Symphonie gespielt wird, gehe ich wieder raus.

'On April 12th I'll go to a Bruckner concert. But *if* his Romantic Symphony is played, I'll leave again.'

- (17a) Am 12. April ist Anna in ein Bruckner-Konzert gegangen. *Falls/wenn* seine Romantische Symphonie gespielt wurde, ist sie sicher wieder rausgegangen.
'On April 12th Anna went to a Bruckner concert. *If* his Romantic Symphony was played, she probably left again.'

The specific temporal relation between the two clauses, however, is not part of the meaning of the sentence as such, in contradistinction to what is the case with temporal clauses. The two clauses are not processed in one turn, as a single sentence, so to speak; rather, each clause is processed separately and fully, the main clause using the event introduced and located during the processing of the subordinate clause as a temporal anchor in exactly the same way as a simple, independent sentence may anchor temporally in a preceding simple sentence. In other words, the main clause episode or perfect state for pragmatic reasons, as part of the interpretation of the whole text, is taken to overlap* the subordinate clause event unless the latter is used as a time from which to compute the reference of a main clause frame adverbial, as in (15a). (16a) and (17a), for instance, where *wenn* is used conditionally, may be interpreted like (16b) and (17b), i.e. as if followed by a temporal clause that corresponds to the conditional clause and links the main and subordinate clause episodes explicitly as arguments of the overlap* relation. It should however be stressed that the sentence must not necessarily be interpreted in that way; alternatively, the matrix clause may be linked to the preceding independent sentence as falling within the frame denoted by the time adverbial, but without being related temporally to the subordinate clause episode: Anna may in fact have left as soon as she saw the program, before the concert even began.

- (16b) Am 12. April gehe ich in ein Bruckner-Konzert. Aber *falls/wenn* seine Romantische Symphonie gespielt wird, gehe ich wieder raus, wenn sie gespielt wird.

'On April 12th I'll go to a Bruckner concert. But *if* his Romantic Symphony is played, I'll leave again when it is played.'

- (17b) Am 12. April ist Anna in ein Bruckner-Konzert gegangen. *Falls/Wenn* seine Romantische Symphonie gespielt wurde, ist sie sicher wieder rausgegangen, *als sie gespielt wurde*.

'On April 12th Anna went to a Bruckner concert. *If* his Romantic Symphony was played, she probably left again when it was played.'

The assumed anchoring relation between the two clauses (16a)-(17a) reminds strongly of nontemporal anaphoric linking between main and subordinate clause in complex sentences; cf. (18a) and the coreference between *seine Romantische Symphonie* and *sie* 'it' in (16a)-(17a).

- (18a) Falls/Wenn/Da Anna; nicht antwortet, ist sie; nicht zu Hause.
'If /When/As Anna; doesn't answer, she; isn't at home.'

And the question naturally arises whether the matrix clause allows temporal anchoring in a subordinate clause which it precedes rather than follows; i.e., to what extent does temporal anchoring obey the binding condition violated in (18b) that an anaphor (a pronoun) cannot be coreferential with a noun phrase which it precedes and c-commands (Grewendorf 1988: 129 ff.)?

- (18b) *Sie; ist nicht zu Hause, falls/wenn/weil Anna; nicht antwortet.
*'She; isn't at home if/when/as Anna; doesn't answer.'

In this respect, adverbial anchoring seems to behave like normal anaphoric anchoring, as might be expected: in *diesem Augenblick* in (15b) can hardly be anchored directly in the subordinate conditional clause event although the two clauses might very well have a common anchor in the precedent text.

- (15b) Man kann getrost annehmen, daß von diesem Augenblick an keinerlei Vertrauen mehr zwischen Beizmenne und Katharina entstehen konnte, *wenn* er diese Frage gestellt hat.
'One may safely assume that from that moment on there could be no trust between Beizmenne and Katharina, *if* he did ask that question.'

Corresponding restrictions seem to hold for tense and adverbial anchoring in relative clauses as observed by Declerck (1990: 105), who states that "the situation-TO [Time of Orientation] of a relative clause" may bind "the situation-TO of the matrix (rather than the other way round)... only if the relative clause precedes the matrix". Thus, the (past) perfect and the underlined adverbial of the matrix in (19a) are both evaluated with respect to the episode time of the subordinate relative clause; but according to Declerck, (19b) does not allow a corresponding interpretation.

- (19a) The copy that was destroyed today *had only been made* a couple of hours earlier.
(19b) A copy *had been made a couple of hours earlier* which was destroyed today.

Implicit episode anchoring, on the other hand, might seem to work quite well even if the linear ordering of subordinate and main clause is changed, as shown in (16c)-(17c). At least, the two texts hardly differ from the corresponding (b)-examples with respect to their possible temporal interpretation. But then again, even the latter allow for the main clause episode to remain unanchored within the given frame.

- (16c) Am 12. April gehe ich in ein Bruckner-Konzert. Ich gehe aber wieder raus, *wenn/falls* seine Romantische Symphonie gespielt wird.
'On April 12th I'll go to a Bruckner concert. But I'll leave again if his Romantic Symphony is played.'

- (17c) Am 12. April ist Anna in ein Bruckner-Konzert gegangen. Sie ist sicher wieder rausgegangen, *wenn/falls* seine Romantische Symphonie gespielt wurde.
'On April 12th I'll go to a Bruckner concert. She probably left again if his Romantic Symphony was played.'

The main clause episode of (20b), on the other hand, does not take the relative clause episode as its reference point, i.e. is not interpreted as overlapping* that episode, as easily or automatically as is the case with (20a); (20b) in fact seems rather odd.

- (20a) Meine Schwester, die gestern nach längerer Abwesenheit zurückkehrte, *war sehr krank* und *wurde* ins Krankenhaus *gebracht*.
'My sister, who returned yesterday after having been away for a long time, *was very ill* and *was brought* to the hospital.'
- (20b) Meine Schwester *war sehr krank* und *wurde* ins Krankenhaus *gebracht*, die gestern nach längerer Abwesenheit zurückkehrte.
'My sister *was very ill* and *was brought* to the hospital, who returned yesterday after having been away for a long time.'

In (21) and (22) it is rather difficult to decide which episode is anchored in which - if there is any anchoring relation at all - and whether the linear ordering of the clauses makes any difference in this respect.

- (21a) Obwohl Carina sie davon abzuhalten versuchte, verließ Anna wütend die Party.
'Although Carina tried to dissuade her, Anna furiously left the party.'
- (21a) Anna verließ wütend die Party, obwohl Carina sie davon abzuhalten versuchte.
'Anna furiously left the party, although Carina tried to dissuade her.'
- (22a) Wenn/Falls du im Wochenende wegfährst, bekommst du 100 Mark.
'If you go away in the week-end, you'll get 100 Mark.'
- (22b) Du bekommst 100 Mark, wenn/falls du im Wochenende wegfährst.
'You'll get 100 Mark if you go away in the week-end.'

We may conclude, then, that tense and adverbial anchoring in a nontemporal subordinate clause seem to demand that the subordinate clause precedes the part of the matrix clause that contains the tense and/or adverbial to be anchored; in that respect, temporal anchoring within complex sentences containing a nontemporal subordinate clause would seem to obey the general binding conditions holding for anaphors in complex sentences: the 'binder' of an anaphor may not occur in a position where it is preceded and c-commanded by the anaphor. Consequently, this anchoring pattern must be expected to occur only rarely with subordinate clause types that normally succeed their matrix clause, as e.g. complement clauses (cf.

Declerck 1990: 105), but to be more frequent with subordinate clause types like conditionals (in a broad sense) which very often precede their matrix clause.

As for episode anchoring, it seems to be allowed when tense and adverbial anchoring is allowed; but it is not quite clear whether it is also constrained in the same way or whether the matrix clause episode may in fact anchor in the episode of a following nontemporal subordinate clause. In the above mentioned (b)-sentences - and even in some of the (a)-cases - other interpretations seem possible too; and the different kinds of subordinate clauses may differ in this respect. The uncertainty obviously has to do with the implicit and very pragmatic nature of episode anchoring. At any rate, however, episode anchoring in a non-temporal subordinate clause apparently presupposes a temporal frame of reference common to subordinate and matrix clause, just like the temporal linking of the main clause and a subordinate temporal clause. Finally, it should be stressed that if episode anchoring could be shown to occur under conditions where adverbial anchoring is impossible, it definitely should not be subsumed under 'normal' anaphora.

4. Subordinate clause anchoring in the matrix clause

This kind of anchoring is typically found in complement and relative clauses (cf. Rohrer 1986), as illustrated in (23)-(25):

- (23) Vielleicht hatte der Internatsleiter auch erfahren, *daß* ich neulich für eine ganze Markt Warschauer Brot *gekauft* hatte.
'Perhaps the director of the boarding school had found out *that* I a short while ago had bought Warsaw bread for a whole mark.'
- (24) Ich werde den Bescheid dem geben, *der* neben mir steht und der ihn sofort weitergeben wird/*weitergibt*.
'I shall pass the message to him *who* is standing/will be standing beside me and who immediately will pass it on.'
- (25) Eines Tages spürten wir, *daß* wir eine Stelle *erreicht* hatten, wo das Meer sehr tief war, tiefer als anderswo.
One day we felt *that* we *had reached* a place where the sea was very deep, deeper than at other places.

The underlined adverbs in (23) and (24) - and the perfect tense in the complement clause of (23) - will be 'counted' from the event time of the matrix clause; the state described in the first relative clause of (24) can be understood as overlapping the future main clause event, i.e. as 'who at that time will be standing beside me', but also allows anchoring in the speech time itself, i.e. 'who is now standing beside me'; and in (25), the perfect state described in the complement clause (the *daß*-clause) must be taken to overlap the episode time of the main clause, i.e. the time of perceiving; that is, the perfect tense is evaluated with respect to the time of perceiving and thus locates the event of reaching the place in question before that time;

and the relative clause again is anchored in its own matrix clause, describing a state overlapping the reaching-event (at least); cf. Fig. 2.

Figure 2.



In (23) and (25) - and maybe also in (24) - the anchor is what Kamp and Rohrer¹⁴ call the temporal perspective point, i.e. the time from which the episodes in question are 'seen' in the sense in which the described episodes are 'seen' from the speech time in utterances that take the actual speech time as primary reference point. This kind of anchoring is very characteristic of so called indirect discourse in a very broad sense, i.e. subordinate clauses embedded directly or indirectly under utterance verbs, perception verbs, and verbs expressing propositional attitudes of any kind; in other words: verbs that presuppose a speaking, perceiving, thinking etc. subject, thus creating a kind of secondary origo or deictic center. The literature on tense in indirect discourse is rather extensive, so I shall not expand further on that topic.¹⁵ It should, however, be noticed that subordinate clause anchoring in the matrix clause is by no means confined to complement and relative clauses. Thus, in (26)-(28) the matrix clause episode or frame of reference serves as the reference point of the nontemporal adverbial clause (adverbial, tense and episode anchoring, respectively).¹⁶ And as might be expected, this kind of anchoring is possible whether the matrix clause precedes the subordinate clause or the other way round. In any case, the normal structural conditions for anaphorical binding are fulfilled (cf. 3).

- (26a) Anna muß um fünf Uhr nach Hause, *da* wir ein paar Stunden später in Urlaub fahren.
 'Anna has to come home at five o'clock *because* we (will) leave for our holiday a couple of hours later.'
- (26b) *Da* wir ein paar Stunden später in Urlaub fahren, muß Anna um fünf Uhr nach Hause.
 '*Because* we (will) leave for our holiday a couple of hours later, Anna has to come home at five o'clock.'
- (27a) Heute wurde Anna schon um sechs Uhr wach, *obwohl* sie schlecht geschlafen hatte.
 'This morning Anna woke up at six o'clock *although* she had not slept well.'

- (27b) *Obwohl sie schlecht geschlafen hatte, wurde Anna heute morgen schon um sechs Uhr wach.*
'Although she had not slept well, Anna woke up at six o'clock this morning.'
- (28a) *Ich werde heute abend kochen, falls ich zu Hause bin.*
'I'll cook this evening if I'm home.'
- (28b) *Falls ich zu Hause bin, werde ich heute abend kochen.*
'If I'm home, I'll cook this evening.'

Conversely, complement and relative clauses, even in apparently indirect discourse, may very well anchor outside the main clause, whether they take the primary speech time or an event introduced in the previous discourse as their reference point. Thus, in (29) the tenses and a time adverbial of the subordinate (complement or relative) clause are anchored in the speech time, i.e. used deictically.

- (29) *Meine Frau erzählte mir neulich, daß du (vor einem halben Jahr) wieder geheiratet hast, und zwar jemanden, der vierzehn Jahre jünger ist als du.*
'My wife told me some time ago that you (have) married again (six months ago) and [that you (have) married] someone who is fourteen years younger than yourself.'

And (30) - from Rohrer (1986) and translated by Declerck (1990: 106) - illustrates the possibility of anchoring a complement clause in a preceding independent sentence. Evidently, the episodes described in the last sentence - 'be tired' and 'take a sleeping pill' - must be taken to overlap and precede the time of Albertine's arrival, respectively, i.e. the episode mentioned in the first sentence of the text.

- (30) *Albertine arrived at the hotel towards midnight. Marcel was not yet asleep, but he did not feel like seeing her. When, the next morning, Albertine wanted to know why he had not opened the door he said that he was tired and that he had taken a sleeping pill which was going to work within five minutes.*

These two examples at the same time illustrate the last type of matrix clause - subordinate clause relation mentioned above (1.6.), viz. the mutual independence of the clauses as regards their temporal interpretation.

5. Temporal independence between main and subordinate clause

There is no need to go into details as regards the absence of anchoring relations between the two clauses. As illustrated in (29)-(30), it is compatible with complement and relative clauses although indirect discourse will be allowed to anchor outside the reported event only under very specific conditions.¹⁷ On the whole, mutually independent clauses may be expected to occur more or most frequently in e.g. causal,

concessive, and conditional constructions like (31)-(33) in which so-called *consecutio temporum* cannot be found to hold.¹⁸

- (31) *Falls/Wenn* wir heute abend im Zelt sitzen und darauf warten, daß es im Topf zu kochen anfängt, dann werde ich vielleicht in ein paar Tagen von meinem Verwandten Ivitaq erzählen.
'If we sit/are sitting in the tent this evening and wait(ing) for the pot to boil, then I shall perhaps tell about my relative Ivitaq in a couple of days.'
- (32) Er ist ausgezeichnet worden, *weil* er schon in jungen Jahren Hervorragendes geleistet hat.
'He has been rewarded *because* he distinguished himself in his youth.'
- (33) Auch Herr Meier war gestern anwesend, *obwohl* er eigentlich sehr ungesellig ist.
'Even Mr. Meier was there yesterday *although* he is in fact rather unsocial.'

6. Summary and final remarks

The main questions discussed above may be summarized as follows:

- How can a specific frame of reference common to the main and the subordinate clause be expressed within the complex sentence itself?
- When does a relative tense or time adverbial in one clause demand or allow anchoring in the episode time of the other clause, i.e. being evaluated with respect to that time?
- When may the episode described in one clause use the episode of the other clause as its reference point, i.e. be taken to overlap* this episode?

I have not tried to answer these questions exhaustively. In order to do that, one would have to go systematically through a series of adequate test cases varying with respect to

- subordinate clause type;
- linear ordering of matrix and subordinate clause;
- occurrence of a frame adverbial in one or the other clause;
- occurrence of a contextrelative adverbial in one or the other clause;
- occurrence of a relative tense in one or the other clause.

And this again would demand a more comprehensive empirical investigation than I have had the opportunity to conduct in this field. Thus the observations presented above and summarized below should be understood as hypotheses and suggestions for further research rather than as conclusive results.

In order for the episodes described in a subordinate clause and its matrix to enter into a direct temporal relation, whether explicitly or implicitly, they must be located within the same temporal frame of reference, which is expressed by finite tenses in possible cooperation with certain time adverbials ('frame adverbials'). That is, if the two clauses have nonoverlapping frames of reference of their own,

the episodes in question cannot be linked to each other temporally in any direct way.

As regards complex sentences containing a subordinate temporal clause, we have seen that

- the matrix or subordinate clause episodes (or perfect states) are temporally linked to each other explicitly, the relation holding between them being denoted by the subjunction itself and thus varying according to the meaning of the subjunction;
- a specific frame of reference common to both clauses may be expressed by an adverbial in the subordinate clause, even if it follows rather than precedes the matrix clause; or by an adverbial contained in the matrix clause, provided that it precedes the subordinate clause (like the antecedent of a relative clause).

For complex sentences containing a nontemporal adverbial, e.g. a conditional or causal clause, we have found that a matrix clause adverbial may be taken to denote a common frame regardless of the linear ordering of the two clauses. But it must not necessarily be interpreted as such, because the clause episodes do not in principle demand a common frame. The location of the matrix episode may belong exclusively to the second argument, i.e. the consequence of the - conditional, causal etc. - relations expressed by the subjunction. Likewise, a subordinate clause adverbial may be interpreted as a common frame, but not necessarily so: the location it expresses may be part of the first argument, the cause or condition argument, of the relation denoted by the subjunction. In fact, it seems to depend very much on the subjunction itself and the nature of the episodes involved whether the broad or narrow scope interpretation of a frame adverbial in either clause will be preferred. At any rate, however, the former is ruled out if the general frames of reference expressed by the tenses in the two clauses do not overlap.

Contextrelative adverbials in nontemporal adverbial clauses may anchor in a preceding or a following matrix clause, whereas matrix clause adverbials can only anchor in a preceding subordinate clause. In this respect, then, anchoring of time adverbials corresponds to normal anaphoric binding. And it differs from the apparently more pragmatic linking of episodes by way of a common specific frame of reference which seems to be possible even if the matrix clause precedes the subordinate clause containing the relevant frame adverbial (cf. above).

Episode anchoring within complex sentences, by which an 'unframed' episode of one clause is taken to overlap* the episode described in the other clause, is also of a rather implicit, delusive nature. At least, it cannot conclusively be shown to obey similar structural constraints as adverbial or tense anchoring.

As for complement and relative clauses, the questions raised above have been touched upon too lightly (mainly in 4.) to need summarizing.

Notes

- * I wish to thank my referees for useful comments on earlier drafts of this paper.
- 1. Bounded episodes are conceived of as having a definite beginning and/or a definite end, i.e. they involve a definite change of state in the sense of Dowty (1979: 163 ff.).

2. Cf. e.g. Fabricius-Hansen (1986: Chap. III), Smith (1980: 360).
3. An interval lies distally before/after some other interval iff the two intervals neither overlap nor border on each other; cf. Löbner (1988).
4. Cf. Fabricius-Hansen (1986: Chap. II. 4.2), Ballweg (1988: Chap. 2.2.5). One may view the frame of reference as a set of time intervals (rather than points) one of which has to be the time of the episode described. In that case, the present tense, when used deictically, defines a frame of reference whose members all overlap each other, viz. the set of time intervals including the time of speech. The frames of reference established by the future and the past tense, however, will contain nonoverlapping intervals inasmuch as they consist of all subintervals of the intervals following and preceding the speech time, respectively.
5. For details see Fabricius-Hansen (1986), Ballweg (1988).
6. Thus defined, the overlapping* relation seems to correspond to the relation Declerck calls sloppy simultaneity: "It appears, then, that the tense forms expressing simultaneity can be used in cases where there is 'sloppy' rather than strict simultaneity. In these cases the speaker disregards the fact that the two situations do not really overlap but concentrates on the fact that they follow each other closely and that there is some logical relation between them. The use of a tense form expressing simultaneity then means that the speaker treats the two situations as belonging to the same 'occasion' and hence as falling within the same time interval." (Declerck 1990: 28)
7. I use the terms 'imperfective' and 'perfective' for the aktionsarten (aspects) often called atelic and telic, respectively; imperfective sentences denote unbounded episodes unless the context makes a reinterpretation necessary, and conversely for perfective sentences; cf. Fabricius-Hansen 1986: Chap. IV. 4. and V.).
8. Cf. the interpretation principles described by Fabricius-Hansen (1986: 362 ff.), Declerck (1990: 85 ff.).
9. Cf. Fabricius-Hansen & Sæbø (1983), Ballweg (1988: 166 ff.), Rohrer (1986).
10. Cf. Fabricius-Hansen & Sæbø (1983).
11. The sentence thus has the following truth conditions (in its non-iterative reading): (a) There is an interval T beginning with the speech time which contains exactly one time t such that 'you' come at t; (b) for any t' identical to t there is a time t'' overlapping* t' such that 'I' tell 'you' something at t''. Here, (a) is probably a presupposition.
12. Cf. Fabricius-Hansen & Sæbø (1983), Metchkova-Atanassowa (1983).
13. Similarly Declerck (1990: 96).
14. Rohrer (1985), Kamp & Rohrer (1983).
15. Cf. for instance Coulmas (1986); for German also Fabricius-Hansen (1989), Pütz (1989).
16. It should, however, be stressed that the anchor of indirect discourse seems to have a different standing from the main clause anchor of adverbial clauses like (26a)-(28b). This is seen from the fact that in many languages (e.g. Russian), the anchor of subordinate indirect discourse takes over the function of the primary time of reference, viz. the speech time, causing tense marking as in direct discourse, whereas in non-indirect subordinate clauses such

switching is not allowed. German, in this respects, behaves facultatively like Russian, cf. Fabricius-Hansen (1989).

17. Cf. Fabricius-Hansen (1989).
18. Cf. Gelhaus (1974), Rohrer (1986).

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TOWARD A THEORY OF TENSE-ASPECT IN NARRATIVE DISCOURSE

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Abstract

This paper presents the broad outline of a theory of tense and aspect in narrative texts. The theory is founded on the concept of markedness and rests on two fundamental assumptions: (1) that narrative constitutes a marked category of linguistic performance whose grammar differs in certain respects from that of ordinary interactive discourse; (2) that adult linguistic competence includes, as one of its components, a 'narrative norm', an internalized set of shared conventions and assumptions about what constitutes a well-formed story. The narrative norm is defined in terms of markedness values for a set of properties, operative at different levels of the linguistic system, which collectively define its unmarked tense: the Perfective Past, or Preterit. A major claim this paper makes is that when in a narrative the Present tense - or any tense other than the Preterit - is chosen, the narrator's objective (conscious or unconscious) is to *neutralize* one or more of the properties that collectively define the Preterit as the unmarked tense of narration, and in turn establish the norms for narrative discourse. To depart from the Preterit is to depart from narration, understood as an activity through which the unordered raw data of experience, real or imagined, are retrospectively converted into language and in the process configured into a meaningful construct: a story. This paper focuses on the crucial role of tense in process of narrativization and in very definition of narrative textuality.

1. Introduction

In recent years a major project of text-oriented linguistics has been an investigation into the linguistic foundations of narrative. The goal of this project is to arrive at an understanding of the strategies used by storytellers to construct verbal icons of experience, both real and imagined. The present paper forms part of this broad based enterprise, and represents one facet of an inquiry I have been engaged in over the past several years into the linguistic structure of narrative, an inquiry focused on the grammatical categories of TENSE and ASPECT. The major findings of this research are elaborated in a book entitled *Tense and Narrativity* (= Fleischman 1990).

In the book I propose a functional theory of tense-aspect¹ in narrative discourse. The theory is based on the concept of MARKEDNESS and is designed to account for the variety of functions tense and aspect are called upon to perform in the linguistic economy of a narration, in particular functions *other* than their basic grammatical functions in ordinary language. A broad outline of this theory

will be presented here, illustrated by examples from narrative fiction in French. The choice of examples from literature should not, however, be interpreted to mean that the theory is restricted to literary or written narration; to the contrary, it applies equally to the natural narrations that punctuate our everyday conversational exchanges. Like most linguists who have ventured into the domain of literary/poetic discourse, I am convinced that insight into the structure and organization of 'artificial' narrative forms must be based on a thorough analysis of the workings of 'natural' narration.² If my examples are drawn from literature, this is because the institution of writing and the special pragmatic status of fiction (see Adams 1985) license certain uses of tense-aspect that are not found in natural-language narrations. Artificial narrative forms, and narrative *fiction* in particular, exploit the resources of tense-aspect systems in particular ways that their natural-language counterparts do not and can thus provide a more compelling illustration of the basic tenets of my theory.

2. An approach to tense in narrative based on markedness

The theory of tense in narrative that I wish to propose is based on the concept of markedness and is founded by two major propositions. The first is that '*narration*' constitutes a marked category of linguistic performance whose grammar differs in certain respects from the grammar of ordinary interactive language. This claim is not an original one; it has been advanced by narratologists of various stripes, in particular those concerned with such phenomena as Free Indirect Discourse, the Historical Present, and what narrativist historiographers refer to as 'narrative statements'. These particular phenomena - and there are others one might cite in this connection³ - occur exclusively in narrative discourse, and provide evidence of its marked status. In the example of Free Indirect Discourse given in (1):

- (1) *Now was his last chance to see her; his plane left tomorrow.*

we observe past tenses collocating with present and future time adverbs; this is only possible in narrative, and some would argue only in literary fiction. The example of Historical Present given in (2) likewise occurs only in narrative discourse, in this case from a natural narrative elicited recently in San Francisco in response to the question "Where were you during the earthquake?"

- (2) *So I'm sitting in my office when all of a sudden the whole damn building starts to shake.*

Finally, consider the examples in (3) of the 'narrative statements' that constitute a hallmark of historiographic discourse (examples from Danto 1965):

- (3a) *Piero da Vinci begat a universal genius.*
(3b) *And so, at Sarajevo, the first shot of the First World War was fired.*

Clearly, these statements could not have been uttered at the moment of Leonardo's

birth or by an observer who happened to witness the assassination of Archduke Ferdinand on June 28, 1914. As the italicized portions suggest, these statements are informed by a 'retrospective intelligibility' which marks them as linguistic products of a configurational act through which experiential data are organized into narratives. Accordingly, statements of this type are consistently, across languages, reported by a Perfective (PFV) tense of the PAST.

The point of these examples is merely to illustrate the claim that certain kinds of utterances occur *only* in narrative language and thus provide support for the view that narrative constitutes a marked linguistic context.

The issue of markedness, which has been of concern primarily to linguists oriented toward literature, is not simply a theoretical issue to be debated for its own sake. It is central to the theory I develop to account for tense usage in narrative, a theory based on markedness and specifically on the proposition, originally proposed by Andersen (1972) with respect to phonological oppositions, that *in a context that is itself marked, the normal markedness values of an opposition may be reversed*. How does this notion apply to tense oppositions?

Most linguists would concur that in languages with a basic PAST/NONPAST opposition, in the *unmarked context* of ordinary (i.e., nonnarrative) language, the PRESENT is the *unmarked tense*, with respect to which the PAST is marked. And if we accept the idea that narrative constitutes a marked linguistic context, then according to the markedness-reversal hypothesis we should not be surprised to see an exchange of markedness values within the 'special' tense system of narrative. A major thrust of *Tense and Narrativity* is to demonstrate the operation of this hypothesis, in particular the proposition that *in a narrative context* the PRESENT tense - or any tense-aspect category other than the PAST (i.e., the *PFV PAST*⁴)- is 'marked' with respect to one or more of a set of properties that together define the PAST as the unmarked tense of narration. This hypothesis entails a particular view of the category PAST: as defined by the markedness framework, PAST is no longer construed as a simple unanalyzable piece of grammatical information, but rather as a 'cluster concept' involving multiple oppositional properties operative at different levels of the linguistic system - the REFERENTIAL, the TEXTUAL, the EXPRESSIVE, and the METALINGUISTIC.

3. The locus of tense within a functional model of language

My analysis of tense in narrative rests on a functional model of language according to which utterances can realize meanings in four interdependent components of the linguistic system, here referred to as the REFERENTIAL, the TEXTUAL, the EXPRESSIVE, and the METALINGUISTIC. This model is an adaptation of a three-level model proposed in Traugott (1982), itself a variation on a similar model put forth by Halliday & Hasan (1976). What I have added to their models is the METALINGUISTIC component.⁵

Briefly, the REFERENTIAL component is concerned with the propositional content of utterances, in particular with truth-conditional relations, referential meanings, and grammatical meanings, including the so-called 'basic' meanings or functions of tense and aspect.

The TEXTUAL or DISCOURSE component is the locus of a language's resources for creating and organizing discourse that is internally coherent and coheres with its situation context, and for signaling other information pertinent to the structure and organization of the text itself, such as topic-focus relations or foreground and background.

The EXPRESSIVE component includes linguistic devices relating to the social, affective, and conative functions of language: in particular, its resources for expressing personal attitudes toward what is being talked about, toward the discourse itself, and toward the participants in the speech-situation. The EXPRESSIVE component is the locus of speaker *evaluations*, whose importance in natural narrative has been brought out by Labov and which has been invoked with regard to tense, specifically tense switching, by Schiffrin (1981), Silva-Corvalán (1983), and in my own 1985 paper on Old French.

Finally, the METALINGUISTIC component houses a language's resources for talking about itself, since it is only *through* language that we can make statements *about* language. Included under the metalinguistic rubric are meanings or functions that signal a particular style, register, genre, or type of discourse. The French *passé simple*, for example, has a METALINGUISTIC function, which some now take to be its primary function, of signaling a particular type of discourse: formal written narration that is detached from its producer and emptied of subjectivity (cf. among many commentators on this category of French grammar, Benveniste 1959, Waugh & Monville-Burston 1986). For languages with explicit narrative morphology, at least one function of this morphology is obviously METALINGUISTIC: it identifies a discourse as narrative. Among the various tense functions located in the METALINGUISTIC component, one of the most striking, discussed below, is what I will refer to as the 'anti-narrative' function of the PRESENT tense.

Both Traugott and Halliday & Hasan situate the contribution of tense-aspect to the linguistic message in the REFERENTIAL component. But this assignment accounts only for the primary, or basic meanings of these categories, i.e., for tense as a grammaticalized marker of deictic temporal relations, and aspect as means of profiling situations as to their boundedness or completion. One of the principal claims I wish to make here is that the functions of tense-aspect categories *in narrative* are not limited to these basic REFERENTIAL meanings; rather, tense and aspect do as much if not more of their work in the two PRAGMATIC components (TEXTUAL and EXPRESSIVE) and in the METALINGUISTIC component; moreover, the functions of tense-aspect that are exclusive to narrative are specifically NON-REFERENTIAL functions.

4. The 'narrative norm'

As stated above, my theory of tense in narrative is founded on two basic premises, the first being the essential markedness of narrative language. The second is the notion that the linguistic competence of normal adults includes, as one of its components, a narrative norm, i.e., an internalized set of shared conventions and assumptions about what constitutes a well-formed story. In the Western narrative tradition (broadly construed), the major tenets of this norm are:

(a) that narratives refer to *specific* experiences that occurred in some *past* world (real or imagined), and are accordingly normally reported in tenses of the PAST;

(b) that while narratives contain both sequentially ordered events and non-sequential collateral material (descriptions, narrator commentary), it is the *events* that constitute the backbone of a narration;

(c) that the unmarked order of presentation in narrative is one in which the order of narrative units (clauses) in a text parallels the order in which events are assumed to have occurred in the world modelled by that text. This default ordering principle is referred to as 'iconic sequence'; and

(d) that all narrations are informed by a particular mode of reporting information, which establishes the narrator's perspective on, relationship to, or involvement with the agents and events of the story. I propose the metaphor of a 'narrating persona' to refer to this relationship, which may change over the course of a narration. In other words, over the course of their narrations, narrators can, and often do, adopt different stances toward their material, or different narrating personae, and these shifts are signalled by changes in the language of the text. In the unmarked instance, the reporting mode is a dispassionate, objective chronicling of events in which the narrator assumes what I call the persona of the 'historian'.

Having adumbrated these basic tenets of normative narration, I hasten to point out that *they are all commonly infringed* - particularly in literary fiction, but also in natural narration. Yet the rhetorical and stylistic effects produced by the infringements are possible only *because* a narrative norm is in place. That is, the fact that artificial narratives, in particular, exhibit such features as flashbacks, prolepses, or other violations of chronology, or repeat the same events more than once (infringements of principle (c)); the fact that certain texts foreground description rather than events (infringing principle (b)), or play themselves out through a highly evaluated discourse that makes no attempt to conceal the narrator's subjectivity (which runs counter to principle (d)) - the fact that narratives commonly exhibit these marked features does not invalidate the notion of a narrative norm or prototype. To the contrary, without a *norm* - understood as a set of unmarked values for particular properties - the *marked* values could not produce the effects they do on listeners and readers.

Let us return now to the first of the four tenets, the crucial role of PAST tense in narration, and consider how this tense functions to define the prototypical narrative sentence.

5. Past tense and the narrative norm

I will assume tacit acceptance of the claim put forth above that the unmarked tense of narrative language is the PAST, specifically the PFV 'event' PAST (see n.4). But, as stated above, I do not construe this tense as a simple unanalyzable piece of grammatical information, but rather as a cluster concept involving a set of oppositional properties operative at the four levels of the linguistic system outlined above. Herring (1986) describes narrative discourse in terms of the unmarked values it carries for a set of properties which collectively define its unmarked *tense*: the

Table 1. *Markedness Oppositions for the Past and Present Tenses in Ordinary (Nonnarrative) Language*

LEVEL OF THE LINGUISTIC SYSTEM	REFERENTIAL		TEXTUAL		EXPRESSIVE			META-LINGUISTIC		
Properties	Time Aspect	Semelfactivity	Sequenc- tiality	Grounding	Reality Status	Perceived Distance	Objectivity	Discourse Mode		
PRETERIT (M)	+ past + PFV	+ semelfactive	+ linked events	+ fore- ground ²	- realis ¹	+ distant	+ objective	+ diegesis		
P R E S E N T (U)	plus- interp.	+ past + PFV ³	+ semelfactive	+ linked events ⁴	+ fore- ground	- realis	- distant	- objective	+ diegesis	
	Zero- interp.	0 past (atemporal)	0 PFV	- semelfactive	0 linked events	0 fore- ground	0 realis	0 distant	0 objective	0 diegesis
	Minus- interp.	- past - PFV	± semelfactive ⁵	- linked events	- fore- ground	+ realis	- distant	- objective	- diegesis	

(A plus sign indicates the presence of the "mark" in question, a minus sign its absence, and "0" the non-pertinence of the mark)

1. The [-realis] value of the PRET holds only for the context of non-narrative language; in narrative the values are reversed and the present is [+realis].
2. Though in ordinary language the PRET (PFV P) is a foregrounding tense (*vis-à-vis* the PR), in a narrative context it is [-foreground] since it is the expected (unmarked) tense for reporting events. This criterion for determining foreground departs from the conventional view in discourse studies which holds 'events', and therefore the PFV P, to be the foreground of a narrative.
3. The aspectual feature [+PFV] and the feature [+semelfactive] distinguish the PR_a from the PR_v; the latter is [-PFV] and [+semelfactive].
4. 'Sequentiality' is variable for the reason that a series of events reported in the diegetic PR_a is not universally felt to convey the same sense of sequential cohesion as if the events had been reported in the PRET; for French in particular it has been argued that sequentiality is conveyed only by the *passé simple*.
5. The minus-interpretation of the English SIMPLE PR is habitual action, i.e. [-semelfactive].

(PFV) PAST (the relevant properties are highlighted):

The prototypical *past-tense* narrative is concerned with *events*, rather than static description; the events are narrated not in random order but in a *sequence* which is *iconic* with the temporal order in which they actually occurred. Moreover, the completion of one event is implied by the inception of the event that follows, a fact which may give rise to an interpretation of aspectual *perfectivity* for the PAST tense, where no other aspectual value is specifically indicated.... The prototypical narrative is *factual* and *time-bound*, in that it chronicles a *unique sequence of events* which took place at a specific point (or over a specific bounded interval) in time. There is also a sense in which the ideal narrator is *objective*, maintaining a *distance* between him or herself and the events narrated in order to relate them as they actually occurred, in *linear order*, and with a *minimum of personal evaluation* or digression. *It is this complex of features which, in the absence of indications to the contrary, the 'narrative PAST tense' typically evokes.*

Though not intended as a definition, this description yields a profile of the prototypical sentence of narration, represented in Table 1 in the row labeled PRETERIT. The properties listed there are the 'marks' of this tense, grouped according to the functional-semantic component in which they operate.

Sentences of 'diegesis'⁶ typically have *past* time reference and *perfective* aspect; they offer a retrospectively *distanced*, *objective* perspective on events that are presented as *realis*, as *semelfactive*, and as *sequentially ordered*, from which we infer (via *post hoc propter hoc*) that they are also *causally linked*. One of the principal claims I wish to make here is that when in a narrative the PRESENT tense - or any tense other than the PRETERIT - is chosen, the narrator's objective (which is presumably unconscious, at least in natural narration) is to *neutralize* one or more of these properties that collectively define the PRETERIT as the unmarked tense of narration, and in turn establish the norms for narrative discourse.

The remainder of Table 1 contrasts the PRESENT and the PRETERIT with respect to this set of properties. The + values indicated are those that hold for nonnarrative language, where PRETERIT is marked and PRESENT unmarked.⁷

6. Markedness and the present tense

As suggested at various points in Jakobson's writings, the unmarked term of an opposition can receive 3 possible interpretations.⁸

According to the *zero-interpretation*, which is the broadest and most general, the presence or absence of a mark *x* is irrelevant; Jakobson calls this "non-signalization of *x*." For the PRESENT tense, this zero-interpretation is the basic meaning of 'timelessness' or 'a-temporality'.⁹ In the sentences in (4), the PRESENT is used not because it refers to a given time period but, to the contrary, because it is the only tense that can be used with minimal reference to time (cf. Dahl 1985).

- (4) Two and two *are* four.
A good man *is* hard to find.

An unmarked category in its zero-interpretation is often used precisely when the objective is to make no active reference to the mark.

The *minus-interpretation* signals the absence of the feature associated with the marked category - what Jakobson referred to as "signalization of non-x." For the PRESENT tense, the minus-interpretation is the speaker's present or 'present co-temporal with now', as in the sentences in (5):

- (5) I have a splitting headache.
What time is it?

Only the minus-interpretation involves a positive reference to present time.

Finally, the unmarked term of an opposition may also have a *plus-interpretation*, which is fostered by a specific context. The plus-interpretation is the one that could also be signalled by the marked term. For the PRESENT tense this is the meaning of 'past time' that surfaces specifically - and exclusively - in narrative contexts, as in (2), repeated here as (6):

- (6) *I'm sitting* in my office when all of a sudden the whole damn building starts to shake!

But although both PAST and PRESENT can be used to refer to past events, the two are not therefore equivalent. Given the availability of forms specifically marked for pastness which could report a past situation more directly, the choice of a PRESENT always involves some special information. Use of the PRESENT tense in narrative enables particular TEXTUAL or EXPRESSIVE effects precisely because the meanings 'simultaneity with now' (the minus-interpretation) or 'non-specification of temporality' (the zero-interpretation) are always open. In the case of the Historical Present, which I subsume under the broader heading of diegetic presents (cf. n.6), it is the play between the reading 'simultaneity with now' offered by the *tense* itself in its minus-interpretation and the explicit rejection of this reading in the rest of the *discourse* - the temporality of narrative is always past - that fosters the common perception that events are taking place before the speaker's eyes.

The REFERENTIAL, TEXTUAL, and METALINGUISTIC properties which the PRESENT in its plus-interpretation shares with the PRETERIT (see Table 1 again) collectively define a variety of diegetic PRESENT that I will refer to as the diegetic 'action' PRESENT, i.e., the variety of PRESENT used to report *events*, as in the second clause of (6).¹⁰ The properties of this PRESENT include, in addition to occurrence in diegesis proper: past time reference, perfective aspect, reference to unique situations, the ability to foreground, and, as a contextual implicature, sequentiality (qualifications regarding the properties of foregrounding and sequentiality are indicated in the notes to Table 1). Where the diegetic PRESENT differs from the PRETERIT is primarily with regard to properties located in the EXPRESSIVE component. 'Lack of distance' and 'lack of objectivity' are features characteristic

not of narration but verbalizations of experience in which the activities of seeing and speaking are synchronized, e.g. sportscasts or eyewitness news coverage - what Casparis (1975) has labeled 'current reports'. In narration the rule is 'live first, tell later' (or for vicarious narrations 'observe first, tell later'), whereas in current report genres speakers verbalize what they see as they see it, appropriately in the PRESENT tense. These two features of the minus-interpretation of the PRESENT, 'lack of distance' and 'lack of objectivity', derive from the cognitive limitations inherent in trying to verbalize what one sees or experiences while it is happening. But unlike other features of the minus interpretation, these two are not overridden in a narrative context. They remain with a minus value, and it is in part *because* they are nonnegotiable that narrators will choose the marked PRESENT tense (-marked in a narrative context) over the unmarked PRETERIT to accomplish particular TEXTUAL and EXPRESSIVE goals.

The features listed in Table 1 in the row labelled 'minus-interpretation' collectively define the 'present co-temporal with now'. With one exception they can be redefined in 'positive' terms which express more transparently the nuances that emerge in the interplay between plus- and minus-interpretations that is always a possibility whenever the PRESENT tense is used in narration. These positive readings are given in Table 2:

Table 2. *Markedness Values for the 'Present Cotemporal with Now'*

	R E F E R E N T I A L			T E X T U A L		E X P R E S S I V E			M E T A - L I N G U I S T I C
Properties	Time	Aspect	Semelfac- tivity	Sequen- tiality	Grounding	Reality Status	Perceived Distance	Objectivity	Discourse Mode
Minus interp.	- past	- PFV	± semel- factive	-linked events	-foreground	+realis	-distant	-objective	-diegesis
Positively defined	now	IPFV dura- tive	repeatable, habitual events	detached events; suspended event line	foreground	here- and-now	immediate	subjective; evaluated	description; mimesis (i.e. speech)

Thus redefined, [-past] translates as 'now', [-PFV] as IPFV, and [-semelfactive] as iterative or habitual; non-linked events are those that *detach* themselves from the event line, breaking or *suspending* it, while the most 'realis' events, epistemologically as well as linguistically, are those that take place *here-and-now*. Likewise in the expressive component, 'lack of distance' translates as *immediacy*, while a 'lack of objectivity' in reporting translates as *subjectivity*, yielding a text in which the contents of a story world are highly *evaluated*. Finally, on the metalinguistic level, sentences of a narrative text that are *not diegetic* will be either sentences of description, of directly reported speech, or of narrator commentary, which is also a type of direct speech (cf. n.6).

As shown in Table 1, the diegetic PRESENT, which occurs specifically in a narrative context, privileges a number of 'marks' which the PRESENT shares with the PRETERIT. However, the stylistic effects that listeners or readers commonly perceive in narratives that make use of the diegetic PRESENT derive not from the plus-interpretation but from meanings contributed by the tense in its minus-interpretation or zero-interpretation, i.e., from meanings which the PRESENT *does not* share with the PRETERIT. The reasoning behind this statement should be apparent: narrators will choose the PRESENT - or any other marked tense - to obtain meanings that the PRETERIT cannot offer. For example, the 'atemporality' of the PRESENT in its zero-interpretation makes it possible to detach events from a particular historical moment and endow them with a sense of timelessness. This lack of active reference to time, together with the 'non-semelfactive' feature of the PRESENT, motivates use of this tense for genres in which events are for one reason or another regarded as non-unique. Among these genres are jokes, tall tales, and myths, which in addition privilege the 'irrealis' feature that the PRESENT acquires *in narrative* through a markedness reversal.

As for meanings contributed by the minus-interpretation (see Table 2), it should now be apparent that the 'eyewitness' perspective of current reports derives from a combination of tense and aspect features expressing 'simultaneity with now'. The descriptive capacity of the PRESENT (an implicature of its IPFV aspect), together with its optional non-sequential feature, motivates use of this tense to isolate or detach situations from the routine queue for a close-up view, while the ability of the PRESENT to interrupt or suspend the narrative event-line makes possible the suspense that typically accompanies peaks of narrative tension,¹¹ which in natural narration are frequently reported in the PRESENT tense. The fact that the PRESENT is the unmarked tense of the *mimetic* rather than the diegetic mode, the tense of *speech*, motivates its use to transform routine narration into 'performed stories' (see Wolfson 1979), thereby emphasizing, above and beyond the information value of a story, its value as entertainment, as a piece of verbal artistry. Finally, the *immediacy* and *subjectivity* of the PRESENT motivate its use for 'internal evaluation' (cf. Schiffrin 1981, Silva-Corvalán 1983, Fleischman 1986a), as well as for Interior Monologue, which purports to be a direct representation, unmediated by a narrator's language, of the un verbalized thoughts of fictional characters.

Tables similar to Table 1 could be drawn up to contrast the PRETERIT with the other marked tenses of narrative, notably the PERFECT, the IMPERFECT, and the PRESENT-tense counterpart of the latter, the 'visualizing' PRESENT (cf. n.10).

7. Tense in texts

Having outlined the basic tenets of my theory, which characterizes narrative discourse in terms of markedness values for a set of properties that collectively define its unmarked tense, the PFV PAST, I propose now to illustrate the link between tense and narrativity by looking at some of the exceptions that prove the rule, i.e., at storytelling genres that violate some or all of the basic tenets of normative narration set forth in §4 above, and which, accordingly, choose not the PAST but the PRESENT as the primary grammatical vehicle of the discourse. The texts I will refer to would now all fall under the heading of fiction,¹² inasmuch as natural narratives are never PRESENT-based. Though natural narrators commonly switch in and out of the PRESENT tense (cf. Wolfson 1979, Schiffrin 1981, Silva-Corvalán 1983), the PRESENT is never the unmarked or base tense of conversational storytelling.

The genres I consider in this connection in my book make seemingly strange bedfellows: from the standpoint of literary criticism or literary history there is little in common between early Romance epic poetry, in particular the Old French *chansons de geste*; the popular ballad texts of 14th- and 15th-century Spain known collectively as the *romancero*; modern present-tense fiction, in particular by Virginia Woolf; and the postmodern French novels of the 1950's and 60's that have come to be known as the *nouveaux romans* (New Novels). The only thing these genres appear to have in common is their reliance on the PRESENT as the unmarked tense of the discourse. As schematized in Table 3 below, if the PAST tense serves as the grammatical vehicle for the activity of *narration* - understood as a retrospective discourse whose data source is *memory*, the memory of a speaker for whom the past has become an objective knowledge, to be reported in the diegetic mode of the historian -, then the PRESENT tense provides a grammatical vehicle for a different activity and a different type of discourse: a discourse not of memory but of *perception*, spoken not by an historian who remembers but by a *performer*, who purports to re-enact what he sees as he sees it, to offer a mimetic *representation* of words and events rather than a narration.

Table 3. *Correlates of PAST and PRESENT tenses*

Tense	Data Source	Narrating Persona	Mode of Reporting	Associated Activity
PAST	Memory	Historian	Diegetic	NARRATION: I speak what has become an objective knowledge
PRESENT	Perception	Performer	Mimetic	OBSERVATION-REPRESENTATION: I speak what I see (as I see it)

Thus I would argue that in texts that privilege the PRESENT tense, a major function of this tense is *metalinguistic*: to announce a discourse that is not narrative, but

anti-narrative, constituting itself in opposition to the norms of narrative discourse. Just as a text that begins "This guy walks into a bar and says to the bartender..." will immediately be construed by listeners to be a joke, while the same anecdote begun in the PAST tense will be construed as a narration of real events, so too fiction that relies entirely or predominantly on the PRESENT tense thereby announces itself as something other than *bona fide* narration: what I would call storytelling "against the grain."

Space limitations preclude offering a demonstration of my claims about tense and narrativity with textual data from the various genres to which I have referred; accordingly, I will try to make the case with reference to the two genres seemingly furthest from one another as literary forms: the premodern French epic and the postmodern *nouveaux romans*.

8. Present-tense fiction

Primary epic poetry confronts us with a special kind of storytelling in which narrativity, in the sense of a linear presentation of events informed by temporal and causal logic, is subordinated to other dimensions of a genre which is at once story, song, performance, and ritual. Participants in epic storytelling events are generally familiar with the stories, thus chronology can be fragmented or reversed - it can even contradict itself. The same scenes and events are frequently repeated with variations (cf. Fleischman 1986b). Time in the epic has been characterized as moving in circular patterns rather than advancing in a straight line.

Linguists who study narrative generally agree that the backbone of a narration consists of the units of information that *move narrative time forward*, i.e., the sequence of ordered events (cf. Labov 1972, Dry 1983). But in the Old French *chansons de geste* the movement from one strophe, or *laisse*, to another often does not correspond to a progression in story time. In many *laisse*s the only 'events' are speech-events, given the tendency in epic for information to be reported dramatically through quoted speech - monologue and dialogue. Even in *laisse*s like the one from *The Song of Roland* given in (7) below, that contain a significant amount of 'action' in rigorous sequence, narrative time is halted rather than advanced; movement in this *laisse*, in which all verbs but the last are in the PRESENT tense, is rather akin to marching in place:

- (7) The count STRIKES him so powerfully,
he SPLITS his helmet in two through the nosepiece,
CUTS THROUGH the nose, the mouth, the teeth,
down through the trunk and the halberk of Eastern mail,
[through] the two silver bows of that golden saddle
and deep into the horse's back.
He killed them both,... (*Roland*, 1644-50)

In this rendering of the conventional 'epic blow', we observe the path of Roland's sword as it cuts through the pagan's helmet, his nose, mouth, teeth, body, his silver saddle, and ultimately through his horse. Only after this sequence of acts is *de-*

scribed in the PRESENT is the 'macro-event' which subsumes them all *chronicled* in the PASSÉ SIMPLE: "he killed them both." The chronicle line is the only one that advances narrative time; otherwise the action is *visualized*, as if under a slow-motion camera, broken down into its component elements, and only at the end set unobtrusively into the documentary record of the past. Passages describing the epic blow, like those describing many of the ritualized gestures of epic action, are not intended to advance story time but to reveal the qualities of an agent. Whence the choice of an IPFV descriptive tense rather than the narrativizing, historicizing PS.

Epic is also a genre in which the events of story-worlds become detached from their historical origins and enter a kind of timeless realm where the historical past and present come together. The *chanson de geste*, as one critic has remarked, "was conceived not as an historical account of things past, but as a re-enactment of events in the present" (Hatcher 1946), their symbolic aspect underscored by the PRESENT tense, which seems to "divest them of their temporal contingencies" (Grunmann-Gaudet 1980). Another commentator characterizes the genre as "a commemorative *dramatization* of the founding events of a national past" (Goldin 1978), a drama in which historical agents and events shed their ephemeral pastness and enter the timeless realm of legend, a drama re-enacted with each performance through the timeless PRESENT tense.

A discourse that is timeless, in the sense of collapsing the experiential past, present, and future, relies appropriately on a tense which can avoid a commitment to explicit temporality and to profiling events as completed, as over. This tense is the PRESENT. Its IPFV aspect allows¹³ situations to be presented as not yet completed; yet unlike the IMPERFECT, which likewise presents situations as non-completed, the PRESENT makes no explicit reference to pastness. Though I would argue that the meaning of PRESENT tense that is privileged in epic is the 'timeless' meaning, associated with the zero-interpretation, it is the meaning of 'presentness', associated with the minus-interpretation, that is responsible for the effect of vividness commonly perceived in uses of PRESENT tense in narration, particularly in epic.

It has often been observed that epic poets speak as if they were on the scene of events, giving a hypothetical eyewitness account of a spectacle taking place before their eyes. Although the relationship of epic singers to their material is in principle one of retrospection rather than simultaneity, of memory rather than perception, their reporting technique is closer to the current report formula. Like a sportscast, *The Song of Roland* moves back and forth between PRESENT and PAST, as the singer shifts between a *performative* mode of descriptive *visualization* and an *historical* or documentary mode of chronistic reporting. In a thought-provoking paper comparing storytelling techniques in Old French and Old Ukrainian epics, Burbelo (1986) refers to the unmarked mode of reporting information in epic universally as "dynamic description," a linguistic compromise between the dynamic movement of narration and the stasis of description. As seen in our example from *Roland*, action reported in the PRESENT tense is action that is visualized, as in pictorial or cinematic narration.

In my view, the discourse of Old French epics cannot properly be characterized as narration. It is rather what Goldin (1978) has called "a circumspection." The

primary building blocks of narrative - events - are typically fragmented into their constituent acts, which are not narrated but described. Epic poets sing what they see, bringing a legendary past to life in dramatic performance where it becomes imbricated with the listeners' present. The reporting mode of the historian is subordinated to that of the performer and on-the-scene-observer, whose repetitive, achronological, disjunctive brand of storytelling is played out predominantly through the PRESENT tense.

Skipping ahead several centuries, we observe in the French New Novels a similar, if this time conscious, attempt to break with certain of the basic tenets of normative narration such as a linear chronology, temporally and causally linked events, semelfactive events, and a contrast between events and description, with an understood priority of the events. In several of these respects the New Novels return to a textual practice observed in vernacular epics, notwithstanding fundamental differences between the two genres in ideology, compositional technique, and cultural and pragmatic context.

In texts like Robbe-Grillet's *Jealousy*, Michel Butor's *Second Thoughts* (the English title of *La Modification*), or Claude Simon's *The Flanders Road*, there is essentially no timeline, no linear sequence of events. Attempts to discern a narrative line are doomed to failure, for "narrative time" in these texts does not advance. As Robbe-Grillet observes in one of his theoretical essays (1965), "insofar as the modern novel is concerned most often with *mental structures*, which are devoid of time,...time in these novels seems to be cut off from temporality. It no longer passes." Tenses in the New Novel are used to obliterate the perception of passing time that they normally evoke in narrative discourse. The PRESENT tense that serves as the grammatical vehicle of these novels is thus not an Historical Present, which by definition refers to past events, but a PRESENT that refers to the 'now' of the speaker of the text, who in conventional narration we would call 'the narrator'. The "action" of these novels is for the most part a verbal representation of the thoughts and perceptions of that speaker as they imprint themselves on his or her consciousness. Banishing narrative time from his novels, Robbe-Grillet constructs them on the foundation of a "perpetual present," his stated objective being not to create a dynamic linear pattern of events but to represent a totality, a static whole resembling a picture, as in the passage from *Jealousy* given in (8) below.

In this passage, the focalizing¹⁴ eye of the protagonist, a jealous husband, scrutinizes the minute movements of his wife like the zoom lens of a video camera in slow-motion. His vision - cognitive as well as sensory - is severely distorted by his physical proximity to focalized objects and by the slats of the blinds through which he stares (*les jalousies* in French), a reification of his own profoundly distorting *jalousie* (all PRESENT tenses are coded in upper case):

- (8) It IS only at a distance of less than a yard that the elements of a discontinuous landscape APPEAR in the successive intervals [of the slats of the blinds], parallel chinks separated by the wider slats of grey wood: the turned wood balusters, the empty chair, the low table where a full glass IS STANDING beside the tray holding the two bottles, and then the top part of the head of black hair, which at this moment TURNS toward

the right, where above the table SHOWS a bare forearm, dark brown in color, and its paler hand holding the ice bucket. A...’s voice THANKS the boy. The brown hand DISAPPEARS. The shiny metal bucket, which IS IMMEDIATELY FROSTED OVER, REMAINS where it has been set on the tray beside the two bottles.

The knot of A...’s hair, seen at such close range from behind, SEEMS to be extremely complicated. IT IS DIFFICULT TO FOLLOW the convolutions of different strands: several solutions SEEM POSSIBLE at some places, and in others none... (*Jealousy*, pp. 59-60)

Scrutinized at such close range, the figure of the wife can only appear fragmented: a hand, a forearm, a knot of hair, its individual strands; a voice not a character thanks the boy. Verbalizing his perceptions as he watches, appropriately in the PRESENT tense, the jealous husband is unable to gain perspective on focalized objects. What helps to create this ‘out-of-focus’ perspective is the *IPFV aspect* of the PRESENT tense, which enables situations to be presented with no observable beginnings or end points, as simply ongoing.

Robbe-Grillet’s novel proceeds unrelentingly in this fashion, with all sense of narrativity stifled by the overwhelming minutiae of descriptions that seem to go nowhere, or at least nowhere they haven’t been before. For just as the same events and descriptions are frequently repeated in the epics, so too the *nouveaux romans* frequently return to events, scenes, gestures, and objects which we have already encountered.

In a penetrating study of the representation of consciousness in fiction, Dorrit Cohn (1978) coins the term "memory monologues" to refer to novels like Claude Simon’s *The Flanders Road* that read like interior monologues verbalizing the activity of remembering. In memory monologues the logic of the discourse bears no relation to a temporally ordered story-world; events are de-chronologized, and the only ‘continuity’ is that of the spontaneously remembering mind, the only the logic that of "the private associations that determine mnemonic thought sequences" (Cohn, p.183). It is therefore not surprising that *The Flanders Road*, again like the epics, contains cataphoric references to events that have not yet occurred in the story-world at the point in the text at which they are reported. In the case of epic storytelling, such violations of chronology were unproblematic inasmuch as the plots were familiar; since listeners already knew the story of the battle of Roncevaux, it posed no problem to violate chronology in *The Song of Roland* by making reference to the villain’s treason in the PAST tense at the outset of the text, even though the betrayal would not play itself out until considerably later in the story. In *The Flanders Road* de-chronologization is problematic only to the extent that the reader insists on discerning a chronology in the text. For in effect, *the reader of a New Novel is typically supposed to feel that the configurational operation that transforms unordered reality into an ordered narration has been disabled.*

The French New Novelists have often been referred to as *l’école du regard*, ‘the school of the look’ - a label which derives from a particular way of writing that seeks to exclude anything beyond what the eye can see and what can be apprehended by purely visual perception. Critics consistently note the prominence of visual images in the textual practice of these writers (see in particular Britton

1987). The reader of a New Novel becomes of necessity a spectator, an observer of visual reality in its microscopic detail. Sartre's *Nausea* opens with the following statement by the protagonist Roquentin:

- (9) The best thing would be to write down events from day to day. Keep a diary to see clearly - let none of the nuances or small happenings escape even though they might seem to mean nothing. And above all, classify them. I must tell how I see this table, this street, the people, my packet of tobacco, since *those* are the things which have changed. I must determine the exact extent and nature of this change... I must...carefully detail all that happens. Naturally, I can write nothing definite about Saturday and the day-before-yesterday business. I am already too far from it... (*Nausea*, p.7)

Among the striking features of this mode of writing, we observe a shrinking of the 'event' as the crucial component of storytelling and a need to work in fine descriptive detail; an insistence on 'how' rather than 'when'; and above all, a desire to record what one sees, what is happening, at the moment - the very antithesis of the 'narrative statements' of historiographic discourse given in (3), which retrospectively invest acts and actors with meanings. Narrative in the traditional sense of a causally related sequence of past events has undergone a radical transformation; the thrust of the postmodern novel is the evocation of a milieu in the present, which reaches us filtered through a strongly visual focalizer - several critics have suggested a camera eye - that circles around objects and agents, registering its perceptions in a discourse dominated by the descriptive PRESENT tense.

Robbe-Grillet's *Jealousy* has been interpreted alternately as an extreme example of narrative objectivity - the purely visual perceptions of a focalizing 'eye' behind which we have little sense of a focalizing 'I', and as an example of total subjectivity - the obsessive interior monologue of a tormented psyche. Both interpretations motivate the use of PRESENT tense. For on the one hand, the PRESENT is the tense of a discourse that claims to be a *description* of the world as it offers itself directly, in the *present*, to the *perception* of a speaking subject. And on the other, the PRESENT is the tense of interior monologue, the discourse form that purports to offer an unmediated representation of subjectivity. In either case, we have to do with verbal representations that are unconcerned with time movement and sequences of events - the essence of narrativity - and unmediated by retrospective reflection or a configurational act. And in either case what is at issue is not the Historical Present, whose temporality is past, but a PRESENT whose temporal reference is to the 'now' of the speaking or thinking subject, the Present co-temporal with now.

One final point concerning the French New Novel: this genre has been referred to as a 'literature of speech,' insofar as many of the novels seek to move the language of literary fiction closer to that of ordinary conversation, whose unmarked tense is also the PRESENT. The passage given in (10) below is a diegetic passage from Michel Butor's *Second Thoughts*, a novel that attempts to tell a story in the second person (*vous*). Keep in mind that this passage is not directly or indirectly

reported speech; it is the analogue for this genre of straight narration in a properly narrative text. It articulates the thoughts of the speaker-protagonist as he scrutinizes his own behavior while sitting in the compartment of a train:¹⁵

- (10) *There you go again playing that game you get into so often, giving names to your fellow passengers; but this one's not really right for that little boy wriggling in his seat, who's so much younger than your son now; better call him, let's say, André; [and] the woman who's holding his hand and taking him out will be Madame Polliat; as for the young couple, forget the literary allusions, just Pierre, and, let's see, Cécile is out of the question, but Agnès would do just fine... (p. 118)*

Clearly this is not narration in the Historical Present, whose time reference is past; at issue here is the Present co-temporal with now, the tense of a silent speaker observing his own actions in the present and commenting on them to himself.

The various uses of the Present-tense discussed in this section are summarized in Table 4 (cf. also Table 3).

Table 4. *Uses of the Present tense in Fiction*

<i>Use</i>	<i>Example</i>
Arresting narrative time movement	Ex. 7
Scrambling story chronology	<i>chansons de geste,</i> <i>nouveaux romans</i>
'Timeless' storytelling	
Reporting action as <i>visualized</i>	Exx. 7, 8
Representing direct perceptions (rather than remembered experience)	Exx. 7-9
Privileging description (over events)	Exx. 7-9
Interior monologue/storytelling as 'speech'	Ex. 10

9. Conclusion

In a number of respects, as we have seen, the textual practice of the New Novels resembles that of orally performed epics: both genres foreground the visual and privilege description over events; both destabilize chronology and develop a fiction not through linearity but through circularity - repetition and parallelism of words, events, even entire scenes; both opt for a paratactic organization of content units which are simply juxtaposed to one another, their order governed by no overriding temporal or causal logic; and in different ways, both construct a discourse in which speech figures prominently.

In drawing this comparison I do not mean to imply that the artistic objectives of epic singers and postmodern novelists are at all the same, nor their reasons for incorporating these features into their respective textual praxis. I invoke the commonalities principally with a view toward demonstrating, in the context of a

theory of tense and narrativity, the motivations in both genres for the use of the marked PRESENT tense.

The choice of a tense - in literature as in natural language - is clearly more than just a grammatical agenda. Sartre once observed (1947) that the *tense* of a text holds the key to its special strangeness. Taking this observation further, I conclude here by noting that texts which rely on the PRESENT as the basic grammatical vehicle of their discourse are texts which in different but not dissimilar ways move away from the *narrative* prototype toward the monologic and dialogic genres - the *lyric* and *drama* respectively - genres whose unmarked tense is likewise the PRESENT. And in making this move, these texts privilege a metalinguistic function of the PRESENT tense, which is to make a statement about the language of a text, to announce 'this is not a narrative' - according to the rules of narrative's own game.

Notes

1. Given that many languages package tense information and aspect information together in the same morphology, it will be useful to adopt the hybrid category label 'tense-aspect'.
2. The term 'artificial' narratives was coined by Van Dijk (1975) as an umbrella label for the varieties of narrative found in stories, novels, and other types of literature, as well as myths, folktales, epics, etc. - in contrast to the 'natural' narratives produced spontaneously in conversation.
3. For example, it has been widely observed that the relationships between time and tense in narrative often differ from those obtaining in nonnarrative language. Different too are the possibilities for expressing degrees of temporal distance (narrative contexts typically exhibit fewer tense distinctions). Moreover, certain languages have special morphology, including tense-aspect morphology, that is exclusive to narrative (see Dahl 1985).
4. For languages with a PERFECTIVE/IMPERFECTIVE (PFV/IPFV) opposition, the unmarked tense of narrative discourse is the PFV (i.e., the event-reporting) PAST. When used without qualification, PAST should be understood as referring specifically to the PFV PAST, alternately called the PRETERIT.
5. Halliday & Hasan refer to the first three components as IDEATIONAL, TEXTUAL, and INTERPERSONAL, Traugott as PROPOSITIONAL, TEXTUAL, and EXPRESSIVE. While the first two of their categories are virtually equivalent, EXPRESSIVE has the advantage over INTERPERSONAL in not being limited to interactive phenomena. For what is communicated at this level is not only the *interpersonal*, i.e., information about the relationship *between* speech-act participants but also, and equally important, the *personal*, i.e., the speaker's perspective on, or evaluations of, elements of the text.

The assignment of tense-aspect functions to the components of this model is not always a clear-cut issue. Nor is the model adopted here the only one appropriate to the classification of tense-aspect functions; an advantage it has over other functional models is relative simplicity - only four categories, which are, moreover, sufficiently broad to account for a considerable number

- of tense-aspect functions.
6. The term 'diegesis', which goes back to Plato's *Republic*, is used here to refer to sentences of *narration proper*. As used in this sense, diegetic sentences contrast with two other sentence types occurring in narrative: *directly quoted speech*, which is 'mimetic' (an imitation of real speech), and *narrator commentary*, which is neither mimetic (being not a representation of speech but speech itself) nor diegetic (referring not to the story-world but to the world of the narrator at the time of the telling). This meaning of diegesis underlies the term 'diegetic PR', used here as a cover term for the several varieties of PRESENT tense whose time reference is to the past of the story-world.
 7. As indicated in the notes to Table 1, for certain properties the markedness values are reversed in a narrative context where PRETERIT is unmarked and PRESENT marked.
 8. This application of Jakobson's categories to tense oppositions follows the analysis in Waugh (1982).
 9. I adhere to the view that the primary or basic meaning of the PRESENT tense is 'timelessness' or 'temporal neutrality', which is another way of saying that it is inherently *unmarked for time*. As Bolinger (1947:436) states it: "We might call the simple present tense the BASE TENSE, to which all other tenses are oriented but which is itself oriented to nothing, expressing merely the FACT OF PROCESS. The simple present...is 'timeless' not in the sense of 'eternal' but of 'non-committal about time'... Whenever, then, the speaker wishes to avoid the confinement of time implicit in the other tenses, he uses the simple present."
 10. The PRESENT of the first clause of (6), which I refer to as the 'visualizing' PRESENT, is used for making descriptive statements rather than for narrating events. In English the diegetic action PRESENT is coded by the simple present-tense form, the diegetic visualizing PRESENT by the progressive form. In French, as in many languages, there is no formal opposition to disambiguate these two varieties of PRESENT, which correlate respectively with the PFV/IPFV tenses of the PAST system.
 11. Most discourse, narrative or other, is not spoken or written on a uniform level of excitement or tension. There is mounting and declining tension, generally within a global cumulative development. As Longacre (1981) suggests, it is the *peaks* of discourse intensity that mark out the 'profile' of a text which includes one or more such units. Narrative peaks are marked in surface syntax in various ways, including by a shift into PRESENT tense.
 12. I say "now" because the *chansons de geste*, epic songs from medieval France, constituted the popular historiography of their time and were believed by their audiences to be credible accounts of historical events. I address elsewhere (Fleischman 1983) the problem of discriminating 'history' from 'fiction' in the Middle Ages, whose criteria for defining these categories differ from our own.
 13. Few languages have a PFV/IPFV contrast for present time; the PRESENT in most languages is either IPFV or aspectually neutral (Comrie 1976).

14. Following Genette (1980), literary narratologists distinguish between narrative 'voice' (who speaks? who is the narrator?) and 'focalization' (who sees?, whose point of view orients the narrative perspective?). The two may or may not coincide.
15. In this English rendering of the passage, which I have adapted from the published translation so as to preserve the colloquial register of the original, I italicize all marks of 'speech' including the tenses of *discours*.

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82.

DEIXIS, RELEVANCE, AND TENSE/ASPECT

Anna Fuchs

Abstract

I outline a reconstruction of the basic tense/aspect distinctions in the framework of a theory of deixis and relevance. All tense/aspect (TA) functions are deictic. TA morphology specifies intended ad-hoc values of the predication, its relevance and temporal orientation, in relation to basic parameters of the speech situation: the interactional state at the point when the predication is made, and the thematic context it activates. I examine the concept of temporality in the verb and define the main aspectual functions.*

0. Introduction

0.1. 'Speaker's view'

Whatever the definition of any of the functions involved in 'tense/aspect' or 'tense/aspect/mood' systems, it necessarily has to be supplemented by a proviso to the effect that the choice of verb morphology ultimately depends not on the factual presence of the corresponding features - 'anteriority', 'ongoing action', 'event anticipated with reasonable assurance', 'reference to a specific occasion', etc. - but on some such thing as the speaker's view and ad-hoc intention. This is commonplace enough, but what it amounts to is that any definition will give only part of the decisive criteria as long as this overriding factor remains unexplicated. It is obvious that an unqualified notion of 'subjectivity' will not help: we have to do with communicatively conveyed intentions, and to be conveyable, they must form part of a shared system. I suggest that the place to look for the underlying regularities is a discourse-based theory of deixis and relevance.

0.2. Aspect and deixis

According to traditional opinion, aspect is non-deictic. The usual justification, however, boils down to the statement that it does not conform to the accepted notion of temporal deixis.¹ On the other hand, analyses have always abounded in descriptive notions and statements that leave no doubt but that aspectual meanings are oriented to situational reference points just like those of the traditional deictics. Perfects are said to express 'relevance to the present situation'; progressive aspects, 'ongoing actions', 'actions in progress' ('ongoing' where, when, before whose eyes?); other categories are often said to need an *anchoring to some contextual reference*

situation. Slavists have for quite a time now been insisting on such a feature as characteristic of perfective aspect. Here is how Forsyth defined the meaning of the latter twenty years ago:

- (1) ...a perfective verb expresses the action as a total event summed up with reference to a single specific juncture (1970: 8, emphasis mine).

More recently, see, among others, Thelin (1978), Mehlig (1980), Timberlake (1982), Barentsen (1985). Chung/Timberlake (1985) posit orientation to a reference frame as a defining feature of aspect universally.

That aspect should nevertheless very rarely have been classed as deictic is due in a large measure to a mistaken view of deixis.²

0.3. Deixis, the speech situation, relevance, tense/aspect

The 'official' theory of deixis has it that the basic function of deictics is to relate utterance contents to the, one may say, material circumstances of the utterance act - the place where and the time when the utterance containing a deictic is produced, and the distribution of speaker and addressee rôles at that point. This is a very misleading explication.³

Take a few ordinary local and temporal deictic expressions. The ad-hoc value of *next door* is relative to the room where we are on the occasion of use, or to the house, depending on the concern addressed and the thematic context; that of *over* in *over in the States*, to the country or continent where we are (depending again on the concern and thematic context); in *you'll have a better view from over there*, the value of *over* is relative to a rather narrowly circumscribed spot where we, or I, or you are now positioned until moving to a different spot. *Yesterday* is relative to the day 'where we are', *a minute ago* to the minute, more or less, *500 years ago* to 'our present' in a thematically suitable sense, perhaps 'this century', or 'modern times'. Local and temporal deictics are not relativised to the literal place where and time when the utterance is produced; what they are systematically relative to is a 'shared' reference position *within the dimension of localisation activated by the symbolic component of the sign and/or derivable from the wider thematic context*. The localisations expressed are relative to the individual speech situation only insofar as the concerns addressed and thematic contexts activated vary from one speech situation to the other. Moreover, reference positions other than those shared by the interactants may at all times be 'projected' by deictics: *Napoleon was now thirty years old...*

The concept of speech situation itself is usually much underdefined in deictic theory (not so in Silverstein 1976). Enumeration of speaker(s)/addressee(s), time and place misses the essential ingredient of the notion of situation: the action, the drama, participants' interests and expectations ('just imagine the situation I was in!'). Roughly, what the notion aims at is a configuration of factors that matter, at a given juncture, under some concern or interest, against the background of assumptions and expectations related to the given constellation in particular and the order of things in general. As regards speech situations, they are situations

'of speech' only at one level; in a very immediate sense, a speech situation is a 'moment in life', where people with defined identities, at a certain point in their interactional history and in the histories of their worlds, are engaged in business consequential to them and their worlds. *Mutatis mutandis*, this goes for any kind of discourse, including that in print and on stone.

The ad-hoc value of a predication is relative to (at least):

- the *speaker's 'persona'*, defined at different levels we may subsume under a) his socially known identity, b) his responsibilities in the rôle of speaker, or 'accountable formulator'. Assertions, requests etc. count as speaker's commitments and are supposed to express his evaluation of things ('subjectivity' is a *social demand*, proscription in certain types of situation notwithstanding);
- the given *interactional state*. Any predication is supposed to address some concern appropriate at the given point in the interaction (Sacks' 'why that now', cf. Coulthard 1977: 77) and to 'make a difference' to it, with Murray (1983), i.e. to change the interactional state;
- the *thematic context*, the configuration of shared-knowledge facts, assumptions, 'frames', expectations associated with the 'world segment' addressed, or activated, by the predication.

Criteria of the second and third kind determine what is usually called the relevance of an utterance (although some of the first kind have a part in it, too).

Tense/aspect morphology specifies intended relations of a predication to the interactional state and the thematic context. (Mood qualifies speaker's commitments.)

From what has been said it follows that a predication is deictically oriented whether or not it presents TAM morphology, since its pragmatic value is inherently relative to constitutive features of the speech situation. Relevance is a deictic relation, as is the so-called truth-value of a predication.

Relevance is not defined uniquely at the structural level of predication - any meaningful feature of an utterance is there for some relevance - , but only that level is relevant here.

A few remarks: by 'thematic context' I mean the background the hearer has to construct in interpreting an utterance, from the shared assumptions, frames, expectations concerning the world segment activated; Fillmore's (1977) 'scene', Sperber/Wilson's (1986) 'context for comprehension'. It is important to stress, with the authors cited, that this context is not 'given', but must be constructed by the hearer - for each utterance anew, at least in part. The precise organisation of this context at any moment, and the relevance of the utterance, depend not simply on speaker's and hearer's knowledge of the world segment in question, as would appear from Sperber/Wilson, but on the ad-hoc interest or concern (Murray 1983, whose terminology I am using here) or question of immediate concern (Keenan/Schieffelin 1976). An ad-hoc concern cannot exist apart from a world segment 'concerned', but the two notions refer to distinct levels of organisation. - 'Predication' is used in a broad, unspecialised sense. It is meant to comprise at least the predicate and its arguments and to include questions and imperatives, and should be conceived broadly enough, for the questions at issue here, to allow inclusion of covert types, as in non-finite forms. For an interesting discussion, see Himmelmann (1986).

1. Interpretive options underlying tense/aspect meanings

1.1. Overview

TA markings explicitate intended pragmatic interpretations of predications. The structural schema of the predication by itself leaves the ad-hoc value of its content indeterminate in a number of dimensions. On any single occasion, the addressee will have to make interpretive choices along those dimensions (not necessarily each on each occasion). In this, he may have to rely on inference, or the language may present grammaticalised cues specifying the intended choices. For a synopsis, we may group the basic dimensions of interpretive choice relevant to TA in the following way:

1) Is the predication aimed at establishing some fact 'as such', with a view to some 'order of things', or does it address a point in some 'dramatic development', or 'episode'?

'Episodal' relevance involves an additional dimension of choice:

- situation obtaining at some point in the episode vs. change-of-situation, event.

2) Is the predication aimed at establishing some fact as such, with a view to some order of things, or is there a concern with temporal relations, more precisely, with a contrast between a 'present' situation or order of things and some 'non-present' situation or order of things?

Where things 'non-present' come into play, two additional, intertwined choices arise:

- Non-'present' fact defining 'present' reference situation vs. non-'present' reference situation

- 'Non-present': past vs. anticipated.

Analogous options could be formulated in the pragmatic dimension corresponding to mood.

This is not a systematics of possible meanings of TA morphemes: there is the intervening level of the organisation of linguistic systems; see in particular section 2.4.

I should like to remark here that the conception of TA functions I am presenting is not a 'model' in one common sense of the term: it has evolved from extensive in-depth analysis of usage, on the one hand, and much study of the descriptive literature, on the other. Of course, the framework remains open to modification.

1.2. '(Mere)factual' vs. 'episodal' relevance.

In an important but easily overlooked sense, the relevance of any predication may be 'episodal', since any predication may be an event, a change-of-situation, in an interactional episode and be evaluated for its relevance to the situation at that point. Beside this basic relevance orientation, there is that to the thematic context. The intended *immediate fit* of the predicated content to this unspoken complement may be of two kinds: 1) the predication aims at *properties and relations* in the domain of interest; 2) it addresses an *episode* in turn, with a view to the *tension between situations and changes-of-situation*.⁴

1.3. 'Obtaining situation' vs. 'event'/'change-of-situation'

With episodal orientation, a predication may have one of two complementary relevance values: it may be intended to characterise an 'obtaining situation', with a view to dramatic antecedents and/or prospects, or to report an event, a relevant change, with a view to situational givens and prospects affected. A schematic example (after Dahl's - 1985 - expedient mode of representing predicational contents without commitment to a specific language or the presence of TA marking):

(2) At that moment, I badly needed to talk to Mary. But she GO TO TOWN.

How the parts of such a sequence cohere can only be established via the relation of *each* of them to the thematic context, the embedding 'world segment' the hearer is constructing and/or modifying as the communication proceeds. Faced with the message above, you would have to decide, in regard to the upper-case predicate, whether the speaker wants you to imagine the situation where s/he tries to approach Mary but is faced with a circumstance that could be an obstacle, or whether you are to relate its content to the scene under construction as an event that changed the situation in a way decisive to his/her purpose - perhaps Mary's (non-)reaction.⁵

Many languages overtly signal this kind of difference in intended interpretation. Russian, e.g., has a grammaticalised cue signalling 'event' relevance, perfective aspect, while English would signal the complementary value via its progressive, and Standard German leave either interpretation to inference (but German dialects have progressives, Ebert 1989).

1.4. '(Mere)factual' relevance vs. relevance of temporal relations

When a predication aims at establishing some fact 'as such', with a view to an order of things (change, if conceivable, being thematically irrelevant), attempts at temporal interpretation miss its communicative point (*who does this dog belong to?*; *this Mrs. X and Mrs. Y - they simply hate each other*; *2 plus 2 equals 4*; *the earth turns around the sun...*). It is only where some contrast between the present situation or order of things and a past or anticipated one becomes relevant that the temporal reference of a predication will have to be settled in its evaluation.

1.5. Present/past/future

What we conceive of as present - and call thus in everyday language - is strongly determined by the structure of the 'world segment' we have in mind and the ad-hoc interest, or concern, under which it becomes thematic on a given occasion. When we are climbing a mountain together, in talk interested in the 'episodal' aspects of it, your stretching out your arm to help me cross a small crevice and your saying *take my arm* are past as soon as they have been adequately reacted to; when speaking of geological periods, with an interest in the order of things characteristic of each, the last ten thousand years may well count as part of the present. *It is*

relevant change that leads us to see temporal divisions - relevant in regard to the concern we are addressing and the structure of the thematic episode or order of things. Roughly, what counts as present is the point reached in the interaction or in the history of the thematic world segment; what lies before a relevant change will be past, what may come after such change, future.

The temporal notions present, past, future are primitives. The *delimitations* (between 'present' and 'past', 'present' and 'future') are determined by ad-hoc concerns and the structures of the world segments addressed on any occasion. It is only in this latter sense that deictic temporal expressions are relative to the speech situation, systematically.

1.6. 'Past', 'future': primary vs. secondary relevance orientation

Apart from the difference between 'past' and 'future', there are two ways a predication may transcend the 'present': 1) relevance orientation may be to a 'present' situation, 'present' concerns, and a fact that has occurred in the past or is expected, be predicated 'on behalf of' this situation; 2) a past or anticipated situation with its concerns may be evoked, and a fact be communicated whose relevance is to be evaluated in relation to that situation. A statement (after Dahl, cf. (2)) like

(3) I BE ill...

may (neglecting 'future' interpretations) predicate a present or a past fact under a present concern ('how come you're so pale?'), or a present or past fact evaluated against the concerns of a past situation ('...so I was unable to attend the celebration, which I had been so much looking forward to!').

English and many other languages explicitate this kind of difference, cf. the English Perfect as against Past. Russian leaves it unexplicitated: its Preterit may carry either kind of interpretation. The situation is analogous in regard to 'future': see 2.8.

1.7. Remarks

I have tried in this section to derive the basic functional ingredients of TA systems from 'preexisting', pragmatically indispensable interpretive options. The principle may also be illustrated from other grammatical as well as certain close-knit lexical subsystems. Thus, although with verbs of perception languages will in many cases not explicitate the intended 'sense modality' (Viberg 1983), when your interlocutor says

(4) je sens quelquechose de bizarre (I smell/feel something funny)

you will have to settle, pragmatically, on one of the options explicitated in the English versions; and with a language that has no definite/indefinite or singular/plural distinction for the noun, you will still have to decide on how to react to

(5) give me APPLE,

when faced with several specimens of such fruit. Of course, the choices are not made in the void, as the schematic examples might seem to suggest.

With one systematically derivable exception, the interpretive options sketched above as relevant to TA analysis are paralleled and may get explicitated in grammatical domains outside TA.⁶

2. Tense/aspect marking

2.1. 'Tense' vs. 'aspect'

In TA systems, two functional dimensions are intricately interwoven: that of relevance evaluation and that of temporal orientation. While the definition of values in the latter is highly dependent on values defined in the former, the notions of anteriority and posteriority, in relation to a 'point' defined on the basis of ad-hoc relevancies, are themselves not reducible, and thus constitutive of a distinct functional dimension.

Since those temporal values are oriented, and the point of orientation defined with recourse to relevance contexts, a reference to ad-hoc relevance organisation (and not just to ad-hoc 'temporal reference points') enters into the very definition of any time-relational function expressed in TA morphology. Yet again, the management of relevance evaluation and the expression of temporal orientation within it can and must be kept notionally distinct.

The definition of the time-relational element will have to be very abstract, though. What it reduces to is a schematic indication of origin for imported material ('schematic' because it is just a specification of the general direction of the import, not a 'localisation in time'). Neither the kind of material imported nor the destination can be specified in the definition without recourse to types of relevance condition (it is not necessarily the predicated fact that is designated as 'anterior' or 'posterior', and the reference point of the anteriority/posteriority relation cannot be equated with some such landmark as the so-called moment of speech).

This dependence of temporal orientation on relevance organisation is why the endeavour to classify given markings as either 'a tense' or 'an aspect' has led to contradictory results and an open debate in a number of cases (e.g., perfect as against past/imparfait). There are markings that clearly do not effect temporal orientation - progressive and perfective - and their classification as aspectual is nowadays uncontroversial. There also seem to be markings of temporal orientation not tied up with a specification of relevance orientation (which specification is what accounts for doublets such as perfect/past), e.g., the Russian Preterit, and one might perhaps, if desired, designate those as 'purely tense'. But the more interesting question would seem to be that of the way the indication of temporal

orientation in predicates is relative to the intended rôle of the predication in a communicative situation, its intended relevance.

2.2. TA and the multiplication of situational evaluations and presents in discourse

We speak in a situation, which is part of a 'discourse episode'. At this level, the mode of relevance evaluation for a predication (a change-of-situation in the discourse episode) is necessarily episodal: the predication will be evaluated in the light of what has gone before, of the global and local concerns being addressed, and deductions be made concerning the new situation-of-discourse and avenues for further speech action. Every relevant move (thus, at one hierarchic level, every predication) creates a new situation. Interpretation involves recourse to factors related to the given episode and to factors given independently of it, orders-of-things: in this case, the shared rules of discourse.

At the thematic level, the level of what we speak *about*, we may be addressing an order of things (discussing a discourse rule that has just been violated, or climatic conditions in Argentina) or, again, an episode, with its constitutive tension between situations and changes-of-situation: episodes we or others are currently engaged in, among which the present episode-of-discourse; past or anticipated episodes; orders-of-things present, past, or anticipated.

When we address an episode we are currently engaged in (beside that of the discourse itself), a second domain of episodal relevance within what is usually referred to as the speech situation is created. (A: May I speak to Stan?) B: *he's taking a shower* requires relevance evaluation not only at the level of speech action, but also at that of the thematic episode: how does this fit in with Stan's asking A to call at this hour; what follows for A's course of action, is he to call again later or hold the line for a few minutes... A specific domain of order-of-things knowledge will have to be invoked, with such elements as Stan's reliability, the relative importance he is known to attach to showers and calls from this particular friend, the time he usually takes in the shower... The different domains of episodal/situational organisation are not usually distinguished in TA analysis, see such labels as 'relevance to the speech situation'.⁷

Relevant change in a thematic episode or order of things defines a step in time, 'moves time forward', with a frequently-used expression (cf. 1.5.). Thus, every relevant move in the discourse interaction defines a (potential) present; when the discourse level itself becomes thematic, the move will be referred to as past only when properly 'saturated' by subsequent moves. (This is why it is inappropriate to explain *why do you say that?* as 'use of the present tense to refer to the immediate past', as is done, e.g., by Hatcher (1951: 263, 277); cf. Janssen, this volume, section 1.1. At higher hierarchic levels, more extended 'presents' are defined by the larger moves or discourse units. A thematic ongoing episode (beside the discourse episode itself) also creates its own present, or 'presents' at different levels (an episode, such as A's call in the example above, may be just a sub-episode within a more extended one). This present, or these presents, may differ significantly from those created at the level of the discourse interaction: the 'present' situation of Stan's being in the shower, e.g., is probably not coextensive with the 'present'

situation created by B's answer, which will only last until A has given an appropriate reply. When the utterance addresses an order of things, the extension of the present is determined by the pace of evolution of that order of things: the last ten thousand years or so form the 'present' geological epoch; oil prices 'were' lower last month than they are 'now'. The usual definition of present, past, future by reference to the 'speech situation', which is itself not temporally uniform, as we have seen, confounds several distinct dimensions of thematically relevant change, 'time movement'; reference in the definition of present etc. to the moment when the utterance is made generalizes one rather special subtype of condition.

Predication of an item from a past or anticipated episode or order of things may be integrated into a 'present' relevance evaluation. On the other hand, potentially associated with such items are their own contexts of evaluation and presents, and it may become relevant to a current concern to assess a predicated fact against such an evaluative context and/or relate it temporally to an associated present.

Relevance evaluation is thus required at several levels in a speech situation, and the concerns addressed and associated world segments define presents at different levels.

Aspectual functions may be regarded as replications, at the thematic level, of relevance evaluation schemata basic to any speech situation. Episodal-relevance aspects (2.4.) replicate the episodal orientation of the relevance evaluation which is automatic at the discourse level, but may or may not be required at the thematic level (from 'what is the significance of A's *saying this* to the current *discourse episode*?' to 'what is the significance of the *predicated fact* to the embedding *thematic episode*?'). The aspectual component in secondary-orientation tenses (2.8.) replicates the schema of evaluative orientation to the 'present' concern(s) and order(s) of things, in a past or anticipated thematic context (from 'how does the fact fit in with the present concern(s)/order(s) of things?' to 'what was/will be its fit to the concern(s)/order(s) of things present 'then'?'). In either case, to assess the relevance of the predication, the hearer is to 'amplify' its content from the shared knowledge by activating those facts, frames, expectations etc. that define a level of relevance evaluation *within the thematic context*.⁸

The time-relational functions are relative to presents defined via ad-hoc concerns and thematic contexts. They may serve to temporally index a replicated present (see above), which may in turn serve as reference point for a time-relational function (as in a pluperfect, future perfect).

2.3. The organisation of the interpretive options into TA systems

Of the pragmatic options outlined in section 1, a) 'factual relevance'; b) reference to things 'present', and c) 'primary' relevance orientation seem to go unmarked in languages.⁹ I believe that this has systematic reasons, since the three of them, apart from their rôle as reference values in relation to the corresponding 'departures' (episodal relevance, etc.), are resultants of general phenomena. 'Factual' relevance results from one component of the structural meaning of predication, the ascription of some state of affairs to some referent; presents are defined via the interactional and thematic histories; 'primary' relevance orientation may seem

special by contrast to a secondary one, but is otherwise just the general phenomenon of relevance orientation itself.

Predications completely unmarked for TA, the so-called present-tense forms of many languages, are thus defined as base-terms in more than one functional dimension.

Explicitation of episodal relevance orientation, import from non-present contexts, and secondary relevance orientation do not seem to get explicitated 'pure' in TA systems, but always in one of two complementary modes: situation/change-of-situation; past/anticipated. (The situation is different in part outside TA.)¹⁰ As for the explicitation of the overtly codable options, languages, as is well known, are selective.

There seems to be a principle in the explicitation that I can state clearly only for the episodal-relevance dimension, although it may have wider application: languages, broadly, seem to explicitate only one if any of the complementary values the predication may take in this dimension, i.e. either 'obtaining situation' or 'change of situation'. Since a form may carry any interpretive option not specifically excluded, the non-marked terms in each case will be 'doubly defined': they will carry as possible interpretations, in the former case, a) 'factual relevance', b) the non-explicitated episodal value, change of situation; in the latter, a) 'factual relevance', b) the nonexplicitated episodal value, 'obtaining situation'. Although the basic definitions of the explicitations, of progressive and perfective aspects, are complementary, this makes for very different values of progressive and imperfective, on the one hand, and perfective and nonprogressive, on the other (cf. Dahl 1985: 72 f., 92 f.).¹¹

A given marking will exclude only those options that are in contrast with it within the same dimension of choice, but not in principle those from other dimensions. Thus, a secondary-orientation past, the instruction to evaluate the predicated fact against a past context, excludes immediate relevance evaluation against the interactionally present context; it does not in principle exclude present or atemporal reading from the point of view of the present situation. (*I was ill and couldn't attend* does not exclude the speaker's still suffering from the illness; in *the temperature never rose to the melting point during winter*, about a stay in the Arctic Islands, the atemporal reading for the occurrence - not relevance evaluation - of the fact is not cancelled.) To determine the interpretive range of any TA marking, we must be attentive not only to the option it explicitates but also to those that it does not exclude.

Analogous precautions must be taken in the interpretation of non-marked forms: they are often richer in interpretive options than a confrontation with any one marking shows (cf. the end of section 2.5., *à propos* Calver 1946).

2.4. Episodal amplification: progressive and perfective aspects

A 'dramatic', 'dynamic', 'kinetic', 'actional' character has often been ascribed to progressive and/or perfective aspects. Often, such characterisations have been given more or less informally, in the analysis of usage, and remained unintegrated with the basic definitions ('duration', 'totality' etc.), however much their importance

may have been stressed. On the other hand, quite a few authors have seen in 'dynamicity' and 'actionality', in the orientation to change and event, notions central to the definitions themselves.¹² But the danger is always in the tendency to localise such features in the denoted facts instead of in the intended interpretive schema.

2.5. 'Obtaining situation': progressive aspect

Given the highly relational nature of the symbolic component of grammatical deictic signs, 'obtaining situation' is of course a mere tag and would be misleading if taken in isolation.

I have not reached a wholly satisfactory definition of the function and will give a characterisation here that may have to be supplemented but will allow me to make my main points.

As suggested in 2.3., progressive aspect projects a schema of episodal evaluation onto the predicated content: it is to be evaluated for its relevance to an associated thematic episode which must be 'constructed' by the hearer as part of the amplifying context for interpretation. The predicated fact itself is to be considered as an episodal occurrence, and it relevantly characterises the situation at some point of evaluation within an episode.

The episodal characteristic, apparently, has to be stated twice (although there is sure to be a way ultimately to collapse this into a unitary condition): first, concerning the occurrence of the fact, second, concerning the point of evaluation. It is not sufficient for a fact to 'relevantly characterise the situation' at some point of evaluation within an episode: there will be no progressive marking for (*I won't take it:*) *it COST too much*, unless the item should be known to be subject to relevant fluctuations of price. It is not sufficient for the fact to 'be' part of an episode, either: non-progressive *she stood motionless for a minute, they chatted merrily* are alright.¹³ The episode of evaluation may be distinct from that of the occurrence of the fact or coincide with it; the evaluator may or may not be a participant in the episode of occurrence.¹⁴

The ad-hoc relevance orientation mostly seems to be to a complementary change-of-situation as derivable, in the given episode, under the given circumstances, interests etc., from the content of the predication: e.g., a change-of-situation (action, event) that led to this situational feature (and, by implication, a situation that lacked it); or a relevant change-of-situation (action, event) as caused, explained, facilitated, impeded... by it; in fact, perhaps all uses may be subsumed under this characterisation.

In one way or other, the function of progressive aspect tends to be characterised in temporal terms, notably via the notion of duration, 'limited' or, on the contrary, spilling over ('before, during, and after...'). Given that the drawing of temporal boundaries, in the domain of non-metrical oriented time-relations, is dependent on relevant situational (or order-of-things) change, it is not astonishing if time-relational implications can be derived from a progressive predication. But such translations are one-way, and miss the point of the use of the marking.

Progressive predications address concerns of 'actional' relevance. Textbook presentations are overly fond of the *while John was reading, Mary came in* type

of example and will impute the temporal emphasis expressed by the conjunction to the progressive. With a causal link, as in the following example, it is harder to see a temporal emphasis.

- (6) At this point (when a threat to face has occurred in an encounter, AF), one or more participants find themselves in an established state of ritual disequilibrium or disgrace, and an attempt must be made to re-establish a satisfactory ritual state for them. I use the term 'ritual' because *I am dealing* with acts through whose symbolic component the actor shows how worthy he is of respect and how worthy he feels others are of it. (Goffman 1967: 19)

The author is explaining an action, his use of the term *ritual* in a description of perfectly everyday exchanges, by reassessing the situation in which it occurs: the object of analysis has characteristics that define the situation as 'dealing with ritual-like behaviour' and thus motivate the action. (I 'am' in turn interpret'ing' his utterance, assess'ing' the situation with a view to backing up a claim made in the present episode-of-discourse, at the beginning of the last paragraph; and the progressives in quotes explain my progressive in *is explaining*.)

A few examples from spoken discourse (with the episodal, actional background easily overlooked with written genres):

- (7) Two British teen-age boys in the waiting-room on a railway platform. When the arrival of the train is announced over the loudspeaker, A, the more straightforward, gets up and goes out. B artfully takes his time. He remains seated, keeping an eye on the window. After a few seconds, A reopens the door and looks at him. B asks: *is it coming?* Upon A's nod, he gets up.
- (8) An example I cite from Portuguese because the incident happened in Brazil; but the progressive would be just as adequate in English: I go to a key-maker's to have a key duplicated. As I arrive, it is a quarter past noon, and the keymaker is just coming out of the place to lock the door and go away for lunch. He looks at me and says: *estou saindo*. (I'm leaving.)
- (9) The boys from (7) now sitting in the train, headed for Hamburg. A takes out the travel guide. After a while:
A: Hamburg has the biggest red-light district in the world.
B: Hm... the most renowned... notorious... infamous...
A: The most infamous is Amsterdam.
B: *I'm talking about words*. Notorious you say of something that deserves... infamous is something that is bad...

The point of the question in (7) lies in ascertaining whether the situational precondition for the next step in B's actions is given: whether the train has come close enough for him to go out, not, e.g., whether it is approaching 'before, during, and after' anything else (the verb *come* itself shows how the predication is oriented to the boys, not an 'objective description' of the activity of the train). Likewise,

the purpose of (8) is to inform me of a feature of the situation relevant to, in fact interfering with, my actional plan (which the speaker is inferring): questions of temporal interpretation cannot even arise before I know that the man means to go away and has not come to the door just for some minor purpose. (9) is another example of so-called interpretive use; again, the issue addressed is the very assessment of the situation ('you haven't got me right').¹⁵

The 'aberrant' uses of the type *you're being obnoxious* fit in easily - a situation is being characterised, not an order of things -, as do those of the *they're always complaining* type. Cases of the latter kind involve a highly frequent type of deictic projection aptly characterised as 'singularisation' by Forsyth, in regard to Russian (1970: 174 and passim); the progressive injects episodal amplification into the generalizing statement.¹⁶ Possible 'emotional' effects are not inherent in the pattern:

- (10) ... metasemantic speech events are a natural occurrence in everyday speech, a culturally learned speech function. In our society, parents *are constantly glossing words* for children by using... equivalent expressions... (Silverstein 1976: 16)

It is important to remember that non-progressive meanings are 'doubly defined' in the interpretive dimension in question (2.3.): they admit of 'mere factual', but also of change-of-situation interpretation. This is why the attempt to characterise the non-progressive present uniquely in terms of 'mere factual' relevance (Calver's -1946 - 'constitution of things'), although basically sound, fails through one-sidedness: there is the possible change-of-situation interpretation, as in *Alan Ball flicks it forward to Howard Kendall and gets the return pass as they race it down the wing...; I take this egg, beat it lightly, add a little milk, and pour the mixture into..* (examples from Scheffer 1975: 282, 77); *I promise; I bet 50\$*. Cf. the telling characterisations of these uses in Allen (1966: 187 f.): '... taken as a whole', 'one of a fixed sequence of units', which read just like the traditional characterisations of perfective aspect.

2.6. 'Change-of-situation': perfective aspect

Like progressive aspect, perfective projects an episodal schema of amplification onto the content of the predication. The hearer is instructed to consider it as a relevant episodal change-of-situation ('event') to be evaluated from an episodal situation. Mostly (but perhaps not necessarily, cf. above in regard to the progressive), the relevance orientation is to a 'complement situation' as derivable, on the background of the thematic episode, under the given circumstances, interests etc., from the content of the predication; a situation, i.e., whose definition in the background knowledge 'relevantly lacks' the element resulting from the predicated event. The situation of evaluation may, generally speaking, be a 'pre-change' or a 'post-change' one.

Perfective aspect is particularly well-explored for Russian; its 'dramatic', 'episodal' orientation, the tension associated with it between the fact predicated and a pre- or post-change reference situation, the centrality of notions like 'event',

'change-of-situation', are all in the literature, in one form or other (cf. the references in 0.2. and note 12). What I wish to stress is that those features are not conditions for the use of the marking, but results of the instruction for contextual amplification it conveys.

What I tag change of situation, or sometimes event (the 'totality' feature of much of the descriptive tradition), just as 'obtaining situation' for the progressive, is a multiply relational notion: it is relative to the structure of the episode of occurrence of the fact, to that of the situation of evaluation, to overall issues addressed in the communication, and, beside further ad-hoc features, to non-ad-hoc social norms. This is why 'relevant' appears in different places in the characterisation: different hierarchical levels of relevance must be counted with. There is no distinction *de re* between 'episodally obtaining situation' and 'episodal change of situation'; both 'are' episodal events, and it is the ad-hoc relevance organisation that accentuates them differently.

It is an overgeneralisation to assume that pf. aspect necessarily has 'reference to a specific occasion' in the sense of the situation of occurrence being 'given'.¹⁷ In what Russian grammarians have called *perfektnoe značenie*, 'perfect meaning', of perfective preterits, the only situation given is that of evaluation. (*Ox, ja zabyła* (pf)! 'Oh, I forgot!') It is the meaning of the perfective aspect itself that evokes a situation (of evaluation), pre- or post-change.

'Reference to a definite situation (of occurrence)' plus 'event' character of the fact by themselves do not call for use of the perfective. An example I transcribe from Forsyth (1970: 126), with his translation, and a related one with more context, from the same story:

- (11) Nakonec ušla... Zabrela v kakoj-to pustynnyj sadik... i sela na mokroj ottajavšej lavočke. I vdrug ponjala: ego zavtra *budut vešat'* (ipf).
At last she went away... She wandered into some deserted little park... and sat down on a bench wet with melted snow. And suddenly she understood: tomorrow he *was going to be hanged*. (Andreev, Rasskaz o semi povešennyx)
- (12) (A little earlier, in the cell, where the mother is seeing her son for the last time. Her behaviour is grotesquely inappropriate: 'It's chilly in here, aren't you catching a cold?', 'you must not use such language in speaking of your father'. At last the son shouts in exasperation:) Da pojmite že vy, čto menja *vešat' budut* (ipf)! *Vešat'* (ipf)! Ponimaete ili net? *Vešat'*!
Well do understand that they are going to *hang* me! *Hang!* Do you understand or not? *Hang!* (Andreev, 98)

By any criterion - except the requisite relational ones - the underlined forms in (11) and (12) express an 'event'/'change-of-situation' (as well as 'totality'), and the situation of occurrence is specific. But in either case, the fact is treated as a relevant feature of the *obtaining* situation. In the Russian system, this coincides with the expression of 'mere factual' relevance (see 2.3.).¹⁸

In (13), on the contrary, the thematic situation 'relevantly lacks' the predicated fact in its definition; the fact will come as an 'event', a relevant change of situation in regard to the issue at hand.¹⁹

- (13) (Earlier, during the trial. One of the accused terrorists, Musja, pays attention to nothing but to how the situation affects her friends) I... otažala ona na puxlom, milom, dobrom lice svoem vsjakoe...čuvstvo...tex četveryx. O tom, čto ee takže sudjat i takže *povesjat* (pf), ona ne dumala sovsem...
And her good kind round face reflected every ... feeling... of those four. That she herself *would* be sentenced, and (lit.) *hanged* (=condemned to be hanged²⁰) - of that she did not think at all. (Andreev, 76)

2.7. 'Present' and 'present tense'

The expression of 'temporal' relations, anteriority/posteriority, in TA, is in many ways dependent on relevancies. As said before, it is relevant change - in the situation, in an order of things - that makes temporal boundaries; in the sense relevant to TA choice, *Aristotle says..., the boat is sailing tomorrow* do not import non-present matter into the situation: no thematically relevant intervening change is envisaged.

Since situations are organised in several layers and dimensions of relevance, and the orders of things that may become relevant in a situation may have widely diverging paces of evolution, the so-called speech situation may define many different coexisting 'presents'. This complexity is compounded by the fact that we will introduce via speech non-present situations and orders of things, often with their associated internal organisation and 'presents'.

Not only is the notion of present far from simple: so-called present-tense forms, i.e. forms unmarked for TA, have atemporal use in a large proportion of cases and are furthermore defined as reference terms in several functional dimensions, not only the temporal one (cf. 2.3.). For formal as well as functional reasons, they cannot be subsumed under a 'tense' on a par with positive markings of temporal orientation.

2.8. Evaluative orientations for import from 'non-present' contexts

Probably the basic difference between TA systems in the expression of temporal orientation is whether they have specialised markings for 'past/anticipated context of evaluation' as against 'past/anticipated occurrence of the fact'. If a language does, it will present doublets of the Perfect/Past and *going to/will* type; if not, a unitary sign for a given direction of departure (anterior/posterior), which carries either of those interpretations. A language need not treat past and future alike in this respect: Standard German, e.g., has doublets in retrospection ('Perfekt', 'Präteritum'), but an undifferentiated 'Futur'. An example of nondifferentiation in the retrospective direction is the Russian Preterit.

The analogy between perfects and *going to*-type futures on the one hand and Past-like tenses and *will* futures on the other has been noted for English and more generally (Joos 1964: 141; Haegeman 1987; Comrie 1976: 64 f.). Among other systematic factors I cannot detail here, this, it seems to me, makes it unavoidable to include a 'temporal' characteristic in the definition of the latter type of marking; with the proviso that what is being specified is not the time of occurrence of the fact. (I am not really satisfied with 'temporal', though; a more abstract characterisation might be in order which would merely have to be *compatible* with the clearly temporal uses. Cf. the discussion, regarding the anteriority pole, in Fleischman 1989: 16 f.)

A secondary-orientation marking tells the hearer to evaluate the fact, in a first-cycle interpretation ('first' is a way of speaking), not against the relations as constellated at the present point in the discourse interaction, but against those in the relevant background at some point of evaluation temporally distinct from the present point in the interaction.²¹ An example is conversational narrative: in a short narrative used to explain my coming late for an appointment, the predications taken singly ('...and I asked him if it couldn't be done later, but...') will not relevantly change the interactional state, where an appropriate motivation for the infraction is expected; each is to be evaluated against the background relevant 'then', and it is only the narrative as a whole that will be evaluated from the point of view of the present interactional state. A secondary-orientation marking does not give a temporal specification regarding the occurrence of the fact, in relation either to the present or to the non-present point of evaluation: the occurrence of the fact may in principle be anterior, posterior, present, or temporally unspecified in relation to the point at which the predication is made as well as in relation to the non-present point of evaluation. There is no inherent specification either as to whether an episodal item or one from an order of things is being predicated.²²

A 'time-of-occurrence' marking consistently specifies the occurrence of the predicated fact as anterior or anticipated in relation to a situation of evaluation in the thematic world segment, a situation present in relation to the past/future context of occurrence of the fact. No temporal specification is given here as regards the situation of evaluation: it may or may not coincide with a present as defined within the speech situation (non-coincidence is illustrated, e.g., by the perfect component in a pluperfect or past infinitive). Again, the fact predicated may in principle be episodal or characterise an order of things (but see below for the Portuguese *Perfeito Composto*).²³

Both retrospective and anticipatory secondary-orientation marking have systematic epistemic readings, and in languages, at least Indo-European, with explicit conditionals and subjunctives, these are often built on the morphological material that expresses secondary orientation. The interrelations between TA, 'modal' interpretation of predications, and mood (as the explicitation of interpretive options in that dimension) have to be discussed elsewhere, but I should like to remark here that the typical modal readings of tense/aspect signs seem to systematically differ according to whether a time-of-occurrence or a secondary-orientation marking is involved: see the 'intentional' readings of *going to*-type futures as against the epistemic readings of *will*-type ones, the *irrealis* readings of secondary-orientation pasts as against the evidential readings of perfects.²⁴

The much-discussed 'relevance to the present situation' that has been considered a specific trait of perfects forcing their classification as 'aspects, not tenses', is an effect arising under specific conditions, when the situation of evaluation coincides with the speech situation. The characterisation is conspicuously absent from discussions of pluperfects, past infinitives etc., yet the function and relevance orientation of the perfect component is the same there and elsewhere: a fact anterior to and relevantly defining a (by relation) 'present' situation is predicated.

'Present relevance' in the sense discussed especially in relation to the English perfect is not a positive trait *sui generis* defining 'true perfect' meaning (Comrie 1976: 53 ff.). The characteristic relevance orientation and the consistent indication of anteriority of the fact are manifested just as well in the Perfekt of Standard German that is freely used in referring to 'specific situations' in the past (*was habt ihr gestern zu Mittag gegessen*, lit. 'what have you had for lunch yesterday'), or in the Perfeito Composto of Portuguese, which, due to the presence in the system of a perfective anteriority marking, the Perfeito Simples, has had its scope reduced to the designation of order-of-things facts, expression of the corresponding episodal facts being preempted by the Perfeito Simples, due to its inherent episodal orientation; a specialisation of use not observed, as in the English case, in pluperfects, past infinitives, etc. (for more detail, see Fuchs 1988b: 101 ff.). 'Immediate' relevance orientation to the situation of evaluation is just the general phenomenon, and it is only when there is a contrasting departure from it, with a secondary-orientation tense, that it comes to appear as something special.

The English Perfect is not used, roughly speaking, in referring to a specified occasion of occurrence (incompatibility with adverbials like *last year*, and other similar restrictions). Such phenomena of 'fixed perspective' occur more generally in deixis, see the different ways languages will decide which perspective to take when answering a summons: *I am coming/ya voy*, where the Spanish version has 'go'. Out of two possible perspectives, languages will in certain contexts impose (or strongly suggest, cf. Hill 1982) one as appropriate. It is not advisable to let this influence the basic definition of the categories; in fact, it is only the common basic definition that allows one to see the choices of perspective involved, and the principle.²⁵

Secondary-orientation pasts may form the base of a perfectivity contrast restricted to this place in the system. The French Passé Simple, e.g., is secondary-orientation and perfective, whereas the Portuguese Perfeito Simples, which resembles it in being the only perfective marking in the system (perfectivity restricted to the combination with an anteriority marking, and formally amalgamated with it), and in contrasting with a non-perfective secondary-orientation past (Imparfait/Imperfeito), shows no restriction to secondary orientation.²⁶

3. Conclusion

The most treacherous notion perhaps in dealing with tense/aspect, and matters of deixis generally, is that of situation (not Comrie-style, of course); however much I have wrestled with it, I caught myself reifying it again and again. I hope the use I have been making of it can contribute toward an explication of the traditional

intuitive characterisation of TA use as 'subjective', or better, as not accountable for by recourse to the predicated facts themselves.

What I have suggested is basing the account of TA functions on a systematics of intended rôles (or types of relevance) of predications in regard to two constitutive dimensions of speech situations: the interactional state at the point when the predication is made, and the segment of shared-knowledge 'world' it is intended to make a contribution to. The symbolic components of the individual meanings ('obtaining situation', 'change-of-situation', 'anteriority' etc.) will in this conception have to be relativised to the relevance orientations outlined, instead of being defined directly in terms of properties and relations in the facts. This is what would, in my view, amount to a proper explication of the deictic character of tense/aspect.

Notes

- * This is an extract from work in progress, an outline. For reasons of space, the presentation is much more abstract, less illustrated with discourse material, than I should have wished it to be; also, I have had to keep references to the literature to a minimum, which is particularly regrettable because I feel everything I am saying has been said before, although in part implicitly; what I endeavour to do is establish a dimension of explication. The results presented here differ in some respects from those arrived at in Fuchs (1988a and 1988b); notably, with a sharpened concept of temporality in the verb and of mood (as against modal interpretation), I now see expression of anteriority/posteriority in more places than I did before. - I thank the editors and Richard A. Geiger for valuable suggestions, and the latter also for checking my English. All remaining errors and shortcomings are mine.
- 1. Cf. Jakobson (1971/1957: 134 f.,137); Comrie (1976: 5), Lyons (1977: 705).
- 2. But see Benveniste (1956: 255); Heger (1963), cf. note 8; and, although professedly he is not dealing with aspect, Weinrich's (1971: 32 f.) remarkable conception of deixis (it should not be conceived of in a 'gestural' sense, but its theory be developed into a theory of the process of communication).
- 3. Fuchs ms.
- 4. 'Episodes' are something like individual units of the *parole* of life, short- or long-range. The notion plays a central rôle as a unit of analysis in Barker & Wright's investigation of the 'behavioral ecology' of children in a Midwest community, and many suggestive characterisations are given there. Cf. also the 'episodes' in Labov/Fanshel's discourse analysis. For our purposes here, the term covers not only behavioral units, human and animal, but all sorts of 'things happening', including natural occurrences: the present renovation of my house, the German reunification process since last November, the plot to murder Caesar, the life-cycle of the sun. More long-term ones may define orders of things for more short-term ones.
- 5. Cf. the remarks on and illustrations of such episodal amplification in Fillmore (1977: 84 ff.: non-static scenes, 'histories').

6. Relativity to a secondary reference frame, e.g., is an important interpretive option and often gets explicitated in temporal and spatial deixis, cf. contrasts like *an hour ago/an hour before, tomorrow/the day after* (for interesting parallels in the spatial dimension see Allen/Hill 1979, Hill 1982); anaphora, too, is a case in point. The distinction between 'order-of-things' and episodal interpretation seems to be expressed with many construction types involving overt or covert predication (for an illustration in regard to accent patterns, see Fuchs 1987). The distinction that appears specific to TA systems is that between obtaining situation and change-of-situation, but I cannot derive it here.
7. For the independence of the level of discourse interaction from its contents, see Labov (1972: 299 ff.), Labov/Fanshel (1977, ch.s. 1-3), and Conversational Analysis (cf. Coulthard 1977, ch. 4).
8. This is one kind of manifestation of the basic phenomenon of deictic projection. A characterisation of aspect along quite similar lines was given by Heger (1963): aspect manifests 'internal (temporal) deixis', in contrast to the 'external' deixis in tense. Heger connects this to the classic intuitive characterisation of aspect as reflecting a view 'from within' (1963: 23). My account differs in the explication of the 'within', in localising the deictic reference point not within the predicated event ('den ausgesagten Vorgang', p. 22, cf. Jakobson's 'narrated event', 1971/1957: 133 ff.) or its 'progress' ('innerhalb seines Ablaufs', Heger 1963: 23), but within the ad-hoc thematic context. Also, as I argue, aspect cannot be explained via temporal deixis. - For the evaluation of situations see Goffman (1974: of particular interest are pp. 8 ff., from which I regret not to have space here to quote).
9. I find empirical evidence in favor of this assumption and nothing to seriously contradict it in Bybee's (1985) and Dahl's (1985) surveys. Descriptions of 'exotic' languages sometimes make it appear as if a language had an explicit 'present' marking, but on closer inspection the marking turns out to be progressive aspect: the author has been looking for how things going on 'right now' are expressed.
10. Aspectual doublets of BE and HAVE (*ser/estar* etc.) are nondifferentiated, but this is a case apart.
11. The complementarity in the interpretation of English and Russian aspects was first brought to my attention by Mehlig (1980: 15, note 6). Complementarity at the typological level is also stated by Chung/Timberlake (1985: 239 f.). There is, however, the fact that in Russian it is often the ipf. aspect which is more marked morphologically, so the matter deserves more investigation (cf. Dahl 1985: 69-72). Also, the complementarity need not be complete between languages. Portuguese has a progressive widespread in the system, and perfective aspect in one place, the *Perfeito Simples* (Fuchs 1988b: 101). The situation is reminiscent of the typological ergative/accusative complementarity, including its 'splits' and the 'double definition' of the unmarked terms (for the latter see Dixon 1979: 60 ff.). To an extent, the principle may be operative in regard to temporal orientation as well, see Ultan's (1978) distinction between retro- and prospective languages.

12. E.g. Comrie (1976: 35 ff.), H. Galton (1976), Breu (1984), A. Galton (1984), Barentsen (1985), Chung/Timberlake (1985).
13. The example with *cost* raises the question of *Aktionsarten*. It is of course not the verb by itself that excludes the progressive, but the fact that it is here used to state a relation (contrast the deictically-centered, expressive *I must give up the horse. It's costing 'me' a 'fortune'*). The 'aspectual character' of a verb (with Lyons 1977) or, better, of a predicational content (cf. Verkuyl 1972) cannot be determined consistently without consideration of possible intended relations to thematic contexts (cf. also Filip 1989: 281 ff). I believe that this is why the classifications aiming at inherent traits have remained problematic (see, *inter alia*, the extensive class-membership shifts by fiat). There are, to be sure, verbs used predominantly or even exclusively in relational predication - with a degree of variation between languages in the extent to which they will proscribe 'episodal' use (in the sense specified in the text) for a given verb.
14. 'Replications' of a situational evaluative schema, again (cf. 2.2.); quite varied possibilities of perspectivic reflection result. Ehrlich (1983) illustrates this from literary fiction, where progressive predications can be interpreted either from the narrator's or from the characters' point of view.
15. More examples of progressive use in Portuguese, and analysis, in Fuchs (1988b: 98 ff.). 'Interpretive' use of the English Progressive is particularly richly illustrated in Buysens (1968), cf. also König (1980).
16. This pattern - a 'blank-check' use of the deictic episodal orientation - also accounts for so-called gnomic TA use.
17. See e.g., Chung/Timberlake (1985).
18. Cf. the category *obščefaktičeskoje značenie* in the description of ipf. aspect (e.g. Rassudova 1982 passim), of which 'mere factual' looks just like a translation.
19. Forsyth in many places stresses the feature of new development in the situation. Pf. aspect '...introduces the action kinetically as a new development'; 'introduces... a new concept of action'; with pf. imperatives, 'the action is introduced as a new concept in the situation - normally a new decision and exercise of will made by the speaker in response to the situation' (1970: 82, 84, 200). Cf. also Rassudova passim. (Both authors also mention affinities to information structure - word order, stress.)
20. The translation 'condemned to be...' is confirmed by *ved' povesili-taki*, lit. 'so they did hang us', said by one of the five accused on leaving the courtroom, *ibid.* 77.
21. Janssen's (1990) notion of a disactual close-fitting scene, in the characterisation of past tense meaning (this volume), agrees very well with this except that I have come to postulate a 'temporal' characteristic in addition (not so in 1988a and b). This is necessary, I think, even when the language under analysis has no secondary-orientation future to contrast with the past, because in such a language the secondary-orientation past corresponds in function to that in languages that do have future doublets, and does not take over the function of the 'missing' future counterpart.

22. Cf. the examples in 2.3., Fuchs (1988a: 7 f., 1988b: 95). An example of posteriority in relation to the speech situation is German *'s ist so 'ne kalte Ecke hier; da hätt' ich noch mindestens 5 Minuten stehen müssen, bis die 11 k a m*, ('it's such a chilly corner here; I'd have had to stand here for at least 5 minutes until the no. 11 bus lit. c a m e'), said 5 minutes ahead of the regular arrival of the no. 11 bus to the driver of another one who had stopped a second time to pick the passenger up.
23. The tag time-of-occurrence should, of course, not be taken to mean that this is the only pragmatic function of the markings concerned, cf. the characterisations I give in the text. A predication with a time-of-occurrence marking is made 'on behalf of' the (by relation) present situation of evaluation.
24. Irrealis readings for secondary-orientation pasts are well-attested. Secondary-orientation futures (also undifferentiated ones, as in German) tend to have the kind of epistemic reading exemplified in A: 'where *is* Peter?' B: 'oh, he'll *be* sitting next door'. What is past/anticipated here seems to be the situational schema of the *evaluation of factuality*, not relevance (cf., for the future, Fabricius-Hansen 1986: 147), an evaluative schema also underlying the dimension of mood. For 'evidential' readings of perfects, see Comrie (1976: 108 ff.), Slobin and Aksu (1982), Dahl (1985: 152 f.).
25. This is one way in which specialisations of the use of given TA morphemes in different languages (cf. Dahl's discussion of cross-linguistically 'prototypical' vs. variable features, 1985: 33 f. and passim) can be given a systematic explanation. Even where such specialisations manifest cultural 'fashions', as the inclination to use the less immediately committal Past rather than the 'situation-defining' Perfect, in 'face'-sensitive contexts, especially in American English, there is a clear relation to the basic meaning (cf. Wierzbicka forthcoming, 2.3., for a parallel in regard to pronominal usage). An important factor in explaining inter-language variability is, of course, the structure of the TA(M) system of the individual language, cf. the remarks above about the Portuguese Perfeito Composto.
26. I have been using 'situation of evaluation' (or 'context of evaluation') to cover types of configuration that might have to be differentiated, as I see too late to try and do so.

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MEANING AND INTERPRETATION OF TENSE

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Abstract

This paper addresses the problem of the relation between tense meaning (also called 'general' or 'grammatical' meaning) and the possibilities of tense use with the corresponding interpretations (also called 'contextual meanings'). This is done by analysing languages with similar general tense meanings but different possibilities of tense use, not only in subordinate clauses, but also in temporal vs. modal interpretations, as found in Germanic languages on the one hand and Slavic languages on the other. The analysis shows that the different possibilities of tense binding which are found in e.g. English and Dutch as compared with Russian may be related to different principles of textual organization found in these languages.

1. Introduction

Tense does not equal time in any straightforward conceptual way, but may have time- and mode-related uses and the corresponding interpretive variants. Analyses of tense meanings throughout the history of linguistics have tried to account for the observed variation in tense uses in two major ways: either by postulating time-based meanings for the tenses, on the basis of their most frequent use, and assuming that modal tense uses are derived or part of a different paradigm, or by postulating general tense meanings which can account for both time-based, i.e. temporal, and modal tense uses. The reason for the different emphasis of the two groups is in part based on the theoretical framework in which they have formulated their analyses: the analyses which focus on temporal meanings usually do so against the background of the propositional contents in which these tenses occur (cf. e.g. Reichenbach 1947), and the analyses which focus on general tense meanings do so against the background of language analysis in terms of meaning-form units as signs at various levels (cf. e.g. Janssen 1989). The latter framework is based on the assumptions that variants of language use are fully analyzable in terms of the meanings of the individual meaning-form units which are effectuated only if there is a possibility of choice, and their interplay with the meaning-form units which contextually surround them, including the effects of their relative order and (phrasal or clausal) accentuation. This set of assumptions leads to a methodology by which the systematic interpretive contribution of each presumed meaning-form unit is evaluated against its choice possibility in a given context, yielding on the one hand a systematic distinction between distinctive and predictable meaning components, and on the other a possibility to decompose complex meaning-form units into their constitutive parts. It is this latter approach to meaning analysis

which will be largely discussed and advocated here, but results of the former type of analysis will be mentioned as well, because they reveal the differences between the two types of approach, and must be accounted for by the latter approach in its own way.

The best known primarily temporal analyses of tense meanings make reference in one way or the other to the points (or periods) of speech (S), of reference (R), and of the event (E). For English, Reichenbach (1947: 297) proposed an analysis by which "the position of R relative to S is indicated by the word 'past', 'present', and 'future'. The position of E relative to R is indicated by the words 'anterior', 'simple' and 'posterior', the word 'simple' being used for the coincidence of R and E".

(1) Reichenbach's (1947: 297) analysis of the English tenses:

<i>Structure</i>	<i>New Name</i>	<i>Traditional Name</i>
E - R - S	Anterior past	Past perfect
E, R - S	Simple past	Simple past
R - E - S)	Posterior past	-
R - S, E)		
R - S - E)		
E - S, R	Anterior present	Present perfect
S, R, E	Simple present	Present
S, R - E	Posterior present	Simple future
S - E - R)	Anterior future	Future perfect
S, E - R)		
E - S - R)		
S - R, E	Simple future	Simple future
S - R - E	Posterior future	

These are the temporal meanings of entire verbal syntagms characterized by tense, consisting of non-finite and/or finite verbal forms as they include so-called 'compound tenses' as well. According to the methodology of the sign-oriented meaning-form analysis described above, the possibility of a compositional analysis must be investigated for the compound tenses, because they consist of clearly distinguishable finite and (one or more) non-finite verbal forms. A compositional analysis may be considered adequate if the meanings of the constitutive parts are still found in the syntagm and may be e.g. referred to by temporal adverbials, as shown for Dutch by Janssen (1989: 311 etc.). A comparison between Dutch and English is interesting in this respect, as will be shown later.

The meanings of all the compound tenses in Dutch can be analysed in terms of their constitutive parts, such that the meanings of the non-finite verbal forms are used as related to either the meanings of the finite verbal forms or to the meanings of the other non-finite verbal forms which are in their turn related to the meanings of the finite verbal forms. The kind of this relation is in accordance with the meanings of the tense morphemes involved, I would like to further specify Janssen's analysis. For instance, the past participle denotes by virtue of its meaning

of 'effect (in principle conceivable in its coming about)' that the event expressed by means of the verbal stem combined with the past participle is responsible for the coming about of this effect, and must consequently at least in part precede the effect. The effect itself is either directly or indirectly (through a mediating non-finite, infinitival, verbal form) connected with the event expressed by means of an auxiliary, which is the only tensed verbal form. This means that compound tenses can be decomposed into their formally indicated components as meaning-form units, with the events of the non-finite verb forms interpreted as having an internal relative ordering, whereas the events of the finite verb forms are ordered with respect to some external orientation point. These orderings led Janssen (op. cit.) to assume that the so-called R and S are manifestations of a more general notion, called by him 'origin' (so as to formulate it in a more general way than 'orientation point' or 'orientation period'). Janssen's compositional analysis of Dutch thus led him to establish the following temporal interpretive entities which are ordered with respect to each other.

- (2) Temporal interpretive entities in Dutch according to Janssen (1989: 313):
 O = origin (which may equal the speech event),
 E = event denoted by the finite verb,
 E' = event denoted by the first non-finite verb,
 E'' = event denoted by the second non-finite verb.

Janssen (1989: 319 etc.) established that a finite verb can denote an event occurring before, at or after its origin, the first non-finite verb can denote an event occurring either before or after the event denoted by the finite verb, and the second non-finite verb can only denote an event occurring before the event denoted by the first non-finite verb. At this point it may be added that the established relations follow from the meanings of the tense morphemes occurring in finite verbs, and the past participle vs. infinitive morphemes occurring in non-finite verbs: the event denoted by the past participle is interpreted as preceding the event of its origin (whereas its effect coincides with the origin), and the event denoted by the infinitive is interpreted as following (and possibly including) its origin. In the temporal interpretation of finite verbs, event occurrences at or after the origin are (also) not systematically distinguished. This leaves us with only two basic temporal relations, i.e. these of anteriority and simultaneity, as expressed by the preterite and the present verbal morphologies.

The temporal interpretations are not the only ones triggered by the tenses of the finite verbs. In Dutch, modal interpretations of the preterite verbal morphology are as usual as the temporal ones. Janssen showed that this can be accounted for if the meanings of the preterite and the present in Dutch are formulated as follows.

- (3) Tense meanings in Dutch according to Janssen (1988: 128):
 "A finite verb with the form of the present tense means that the expressed event is presented as lying within the advancing stream of current and developing events surveyed from the vantage point of the relevant origin."
 "A finite verb with the form of the past tense means that the expressed

event is presented as lying not within the advancing stream of current and developing events surveyed from the vantage point of the relevant origin."

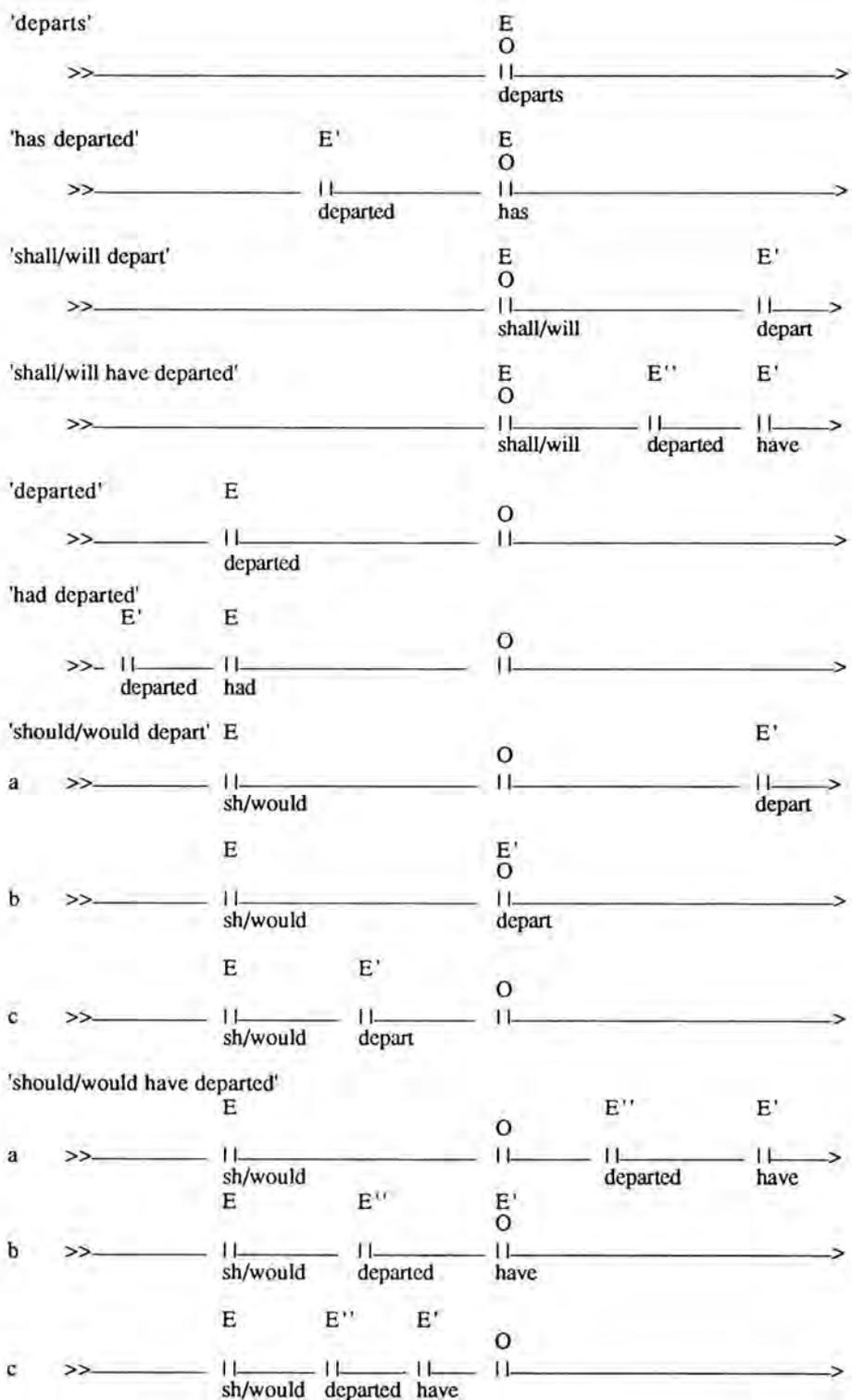
An independent argument in favour of the proposed compositional analysis of the Dutch tenses is found in the possibility of adverbial reference to the period of the event expressed by any of the involved verbs, as stated in (4).

- (4) Janssen (1988: 119) concerning interpretation of temporal adverbials:
"... it is not necessary to assume a special relation between the temporal adverbial and the time of reference [i.e. Reichenbach's R]. Rather a relation has to be assumed between the adverbial and one of the verbs involved, be it the finite or the non-finite verb."

A temporal adverbial in Dutch may thus denote a period which is fully or in part simultaneous with the period in which the event of the past participle took place. This differs strikingly from the impossibility of such coincidence in English, where temporal adverbials do not specify the period of the events denoted by means of past participles. One of the consequences of this characteristic of English is that the present perfect is incompatible with temporal adverbials that refer to a specific moment or stretch of time located wholly in the past (as discussed a.o. by Comrie 1985: 32), which led various authors to the analysis of the so-called compound tense meanings as single wholes, the meaning of the present perfect being 'present, or current, relevance of a past event'. However, in view of the generality of the restriction on temporal coincidence between the period denoted by a temporal adverbial and the period of the event denoted by a past participle, this generality may be viewed as an idiosyncrasy of the category past participle in English, and not in itself the decisive argument against compositional analysis of the English compound tenses.

If we analyse the possible temporal interpretations of the English tenses, including the compound ones, we can see that only relative temporal placements of the events can be established (in part signaled already by Comrie 1985: 70). This essential relativity of the constitutive parts of the English compound tenses may be taken as an argument in favour of their compositional analysis, which directly resembles the compositional analysis of the Dutch tenses, and may in accordance with the methodology proposed by Janssen (1988 etc.) be taken to lead to the following temporal interpretations.

- (5) Temporal interpretations of the English tenses (analysed in the way comparable to Janssen's analysis of Dutch, 1988 and 1989):



The differences discussed above point to partly language-specific tense properties. In addition to language-specific rules of co-occurrence possibilities and the corresponding interpretive relations among tense components and temporal adverbials, language-specific rules of tense co-occurrence and interpretive relations among the tenses in compound sentences exist as well. Major differences in this respect are found among languages which have the so-called 'sequence of tenses' rule, such as Germanic languages, and languages which do not have the same rule, such as Slavic languages. The difference between these two types of languages, as exemplified by English and Russian, respectively, comes out clearly in the rules of tense co-occurrence in indirect speech, as shown in (6).

- (6) Indirect speech in Russian and English, a typological difference (cf. Comrie 1986: 277f.):
- a (Russian) Tanja *skazala* (PAST): Ja *tancuju* (PRESENT).
(English) Tanja *said* (PAST): I *am dancing* (PRESENT).
 - b (Russian) Tanja *skazala* (PAST), čto ona *tancuet* (PRESENT).
(English) Tanja *said* (PAST) that she *was dancing* (PAST).

"More generally in Russian, we can say that the same tense is used in indirect speech as would have been used in the corresponding direct speech. The net effect of this in Russian is that, in indirect speech, tenses have relative time reference, rather than absolute time reference, this relative time reference always being relative to the time reference of the time of speech in the main clause. This is not, however, a general property of tense in subordinate clauses, since in general Russian tenses have absolute time reference whether in main or subordinate clauses" (...)

- c (Russian) V to vremja kak Xazbulat *pel* (PAST), Yzargadžax *tancevala* (PAST)
(English) While Xazbulat *was singing* (PAST), Yzargadžax *was dancing* (PAST).
(Comrie's example, 1986: 276)

Language-specific differences in temporal relations of the type illustrated above form one of the topics of the present investigation. In the course of this investigation, special attention will be paid to language-specific differences in tense 'origins' or 'orientation periods' and the systematicity underlying their distribution as reflected by co-occurrence restrictions on the one hand, and systematic interpretive effects on the other.

2. Tense in Russian

Slavic languages differ in the use of their tenses from various other languages to the extent that translators from Slavic languages consider adequate translations of tense to be the most difficult part of their job. The present investigation will pay special attention to Russian, because it is the best known Slavic language, and still insufficiently investigated in the respect of tense use as related to its meaning.

Linguists investigating tense in Russian (as well as other Slavic languages) generally distinguish between indicative and modal tense uses, and within indicative uses, between 'absolute' (i.e. oriented towards the moment or period of speech) and 'relative' uses (i.e. oriented towards a moment or period which is indicated by the context). The only point of agreement about modal tense uses may be found in their being 'non-temporal', or 'not localized in time', but, unfortunately, no decisive criterion for distinguishing between temporality and modality of tense interpretations has been given in the literature (cf. the discussion in Seljakin 1980 and e.g. Gorup 1987: 42 etc.).

As the problem of tense analysis in relation to temporal and modal interpretations cannot be solved without taking into account the meaning interplay between tense and aspect in Russian, we should have a look at the tense and aspect combination possibilities in the Russian verbal forms first, and then discuss their meaning analyses proposed by Russian and foreign investigators, among the Russian ones most notably by Bondarko (1971). Finally, Russian tense use will be discussed against the background of various contextual possibilities, and an analysis will be proposed.

- (7) Bondarko's (1971: 62) analysis of the verbal forms characterized by tense and aspect in Russian ('imperf.' denotes the imperfective verbal aspect, and 'perf.', the perfective verbal aspect; in Bondarko's intention, brackets denote optionality):

<i>TENSE-ASPECT FORMS</i>		<i>SEMANTIC FEATURES</i>				
		<i>anterior</i>	<i>simultaneous</i>	<i>posterior</i>	<i>localized in time</i>	<i>result</i>
<i>TENSE</i>						
Past	past imperf.	+	-	-	+	(+)
	past perf.	+	-	-	+	+
Present	present imperf.	-	+	-	+	-
	present perf.	-	(+)	(-)	(-)	-
Future	future imperf.	-	-	+	+	-

The semantic feature 'localized in time', intended to distinguish between temporality and modality at the level of meaning, appears to be questionable even at a first glance at this table. (Its only unique assignment, to past perfective forms, will also appear, in our example (13.a), to be based on an insufficient data analysis.) This reflects the fact that temporality is in Russian distinguished from modality only at the level of interpretation, in a given discourse and/or pragmatic setting,

not at the level of meaning if meaning is conceived of in strictly relational terms, i.e. as general meaning. I shall return to the point of temporality vs. modality later on in this section.

The double feature assignments of 'result' also reflect the fact that this distinction in the case of past events is a matter of interpretation, not the system-relational meaning itself. Finally, the double temporal feature assignments (of 'simultaneous' and 'posterior') to the perfective present reflect interpretive effects of the perfective aspect in combination with the present tense, and we must analyse aspect in Russian by itself in order to be able to understand the effects of its combination with other categories. For the aspect, the following definition has been offered by Barentsen (1985).

(8) Barentsen's (1985: 427f.) definition of the perfective vs. the imperfective aspect in Russian, as expressed morphologically in verbal forms:

"The meaning of the perfective aspect is defined on the basis of three hierarchically ordered features: 'event-unit', 'totality' and 'sequential connection'. A perfective form presents the image of a single change of situation, connected with the total passage of the given event-unit. The feature 'sequential connection' means that this complete event must be thought of as a link in a greater whole. By presenting the event as connected with the preceding and/or following situation, the contrast that is brought about between these situations is emphasized.

The meaning of the imperfective aspect can be defined negatively: at least one of the features connected with the perfective aspect must be missing. However, the presence of the feature 'event-unit' in an imperfective form is a prerequisite for forming an aspectual opposition with a perfective form."

We can see that the perfective aspect denotes a change of the event situation within the narrated period, such that there is a situation characterized by the presence of the event and a situation characterized by its absence, in either order: an event may start, end, or last for a while within the narrated period. As distinguished from the perfective aspect, the imperfective aspect is not characterized by a single change of situation (but either by no change, in its durative variant, or by repeated changes, in its iterative variant). This is why the event in the imperfective aspect can be anterior, simultaneous, or posterior to its 'origin' or 'orientation period', and the perfective aspect can be fully or in part anterior or posterior to its 'origin' or 'orientation period', but never fully simultaneous with it (as one of the two situations characterizing it is either anterior or posterior to it).

Being able to abstract from the effects of combination with aspect, we are now able to turn to the analysis of tense meanings in Russian. These can be fully understood only if we analyse them against the background of their distributional possibilities in the verbal syntagms of Russian, as done by Barentsen (1985: 41 etc.), following the glossematic tradition and Ebeling (1956 etc.). Barentsen analysed the infinitives and imperatives as 'non-localizing', whereas the remaining verbal forms are 'localizing', i.e. as he formulated it, they participate in the category 'perspec-

tive', which is further subdivided into 'remotospective' and 'irremotospective', as in the following survey.

- (9) Tense in Russian as based on the category 'perspective', according to Barentsen (1985: 41):

LOCALIZING (THE CATEGORY 'PERSPECTIVE')				
ASPECT	Remotospective		Irremotospective	
	Irreal (conjunctive)	Retrospective	Neutrospective	Prospective
Perfective	Preterite + <i>by</i> (<i>sostavil by</i>)	Preterite + \emptyset (<i>sostavil</i>)	Present (<i>sostavlju</i>)	
Imperfective	Preterite + <i>by</i> (<i>sostavljal by</i>)	Preterite + \emptyset (<i>sostavljal</i>)	Present (<i>sostavljaju</i>)	<i>bud-</i> + inf. (<i>буду (pres.)</i>) <i>sostavljat'</i>

'Preterite' = 'past tense', 'inf.' = 'infinitive', 'pres.' = 'present tense'.
Sostavit (perfective), *sostavljat'* (imperfective) = 'compose'.

Barentsen's analytical contribution, as reflected by the chart, consists in rejecting a systematic relational, i.e. paradigmatic, distinction between temporal and modal interpretations of the Russian tenses, which is usually found in traditional studies (but not supported by data on possible oppositions), and in the corresponding unification of temporal and modal interpretations as based on the category 'perspective', with respect to which ordering in time has the status of interpretation. In his further explanation of the feature specifications of the category 'perspective', Barentsen (1985: 43f.) wrote that 'irremotospective' is used for denoting phenomena which are within reach for the observer, whereas 'remotospective' is used for denoting phenomena which are out of the observer's reach. While this formulation is generally speaking agreeable (but perhaps not sufficiently specific, as will be shown by the discussion of tense uses which will be given below), the contents of these feature specifications do not justify the labels 'irremotospective' vs. 'remotospective', which suggest that the former is a negation of the latter, whereas on the basis of the feature formulations, the opposite feature specifications would be expected.

The deictic or pragmatic origin of 'perspective', strikingly similar to Janssen's (1988: 128) 'vantage point' in the formulation of the Dutch tense meanings (cf. (3) above), may consequently be assumed to be of crucial importance to the meanings of the Russian tenses and the corresponding possibilities of their use. However, in indirect speech at least, Russian has a basically different use of tense than e.g. Dutch or English. In order to be able to establish whether this must be ascribed to a difference in meaning or in textual organization, we must investigate tense uses more extensively, starting from the possibilities of tense use in subordinate clauses.

literature is primarily found in the relation between the clauses within a compound sentence: object, complement and *poka* clauses (cf. (12.b)), which semantically specify the domain of the event of the main clause, have their OP as set by the event of the main clause. This is the rule with declarative verbs in the main clause, the predominant usage with cognitive verbs, and a possibility whenever any kind of cognition, including perception, is suggested on the side of the agent and/or the narrator. In the latter two types of cases, it is also possible to have a less close connection between the subordinate and main clauses, and the so-called 'absolute' tense usage in the subordinate clause. Other types of subordinate clauses, not expressing an object or a complement (including the *poka* specification) of the main clause, are semantically less closely connected with the main clause, and their tense is not set by the tense of the event of the main clause, but rather used 'absolutely', i.e. as related to the same OP as the tense of the main clause. However, even then the narrator may deviate from the predominant pattern and choose to set the OP for the subordinate clause by the main clause, as in (12.a), where Vojnovič decides to describe all the characteristics of the kind of people living in Peterburd at the beginning of the century in the present tense in the subordinate clause, after placing the main clause in the past.

- (12) a Pomnju (IMPERFECTIVE PRESENT), ešče v šašnadcatom gode služil (IMPERFECTIVE PAST) ja v Peterburde xel'dxebelem. A narod tam prožival (IMPERFECTIVE PAST) takoj, čto rabotat' ne xočut (IMPERFECTIVE PRESENT), a s utra poran'še berut (IMPERFECTIVE PRESENT) trjapočki raznye, na ix fuljuganskije slova pišut (IMPERFECTIVE PRESENT), potom na palki nacepjut (PERFECTIVE PRESENT) i idut (IMPERFECTIVE PRESENT) na ulicu - gramotnost' svoju pokazat'. (Vojnovič 1981: 129)

'I remember, back in 1916, I was stationed in Peterburd as a sergeant major. They had the kind of people there that did not want to work, but first thing in the morning they grab rags, write all this hooligan stuff on them, then they would fasten these rags onto sticks, and out they go parading to show everybody they know how to read and write.'

Even though the OP for the clauses starting from the first subordinate clause of the second sentence may be viewed as set by the main clause of that sentence, the 'origin' of the present tenses cannot strictly speaking be analysed as set by that main clause, but rather by the narrator's cognition of the events, as even formally expressed by the verb *pomnju* 'I remember' in the preceding sentence. By using the present tense, the narrator places himself into Peterburd of 1916 and reports about the events from his vantage point. In the given example we may speak of the narrator's cognition, in the original text presented in the form of the reported speech of one of the personages, but examples such as (12.b) show that it may also be the agent's cognition, which is shared by the narrator.

- (12) b Ej *prišlo* (PERFECTIVE PAST) v golovu, čto lučše (∅ PRESENT) pokinut' zal, no potom ona *rešila* (PERFECTIVE PAST) ostat'sja, poka *xvatit* (PERFECTIVE PRESENT) mesta. (Sirin/Nabokov; Barentsen 1985: 352)
 'It occurred to her that it would be better to leave the hall, but then she decided to stay, as long as there would be enough space.'

The present tense forms in these clauses have been used on the basis of the same general meaning as elsewhere. They may be said to fit Seljakin's (1980: 7) definition of the present tense in Russian as denoting events which at the speech or 'zero' moment (resembling 'orientation period' or 'origin' of the other investigators) "exist or still/already exist and are relevant to the speaker". Seljakin showed that the temporal and modal meaning components, as specified by the first and the second part of the definition, respectively, are effectuated by the different contexts. The present tense of perfective verbs in Russian, which is known to have either present modal or future temporal or modal interpretations, was assumed by Seljakin to be characterized by syncretism of present and future, and a possibility of aspect neutralization (as the perfective aspect may in some cases be replaced by the imperfective aspect). However, if aspect - and the situational change characteristic of the perfective aspect - is assumed to be present in the meaning, then the interpretational binding of the first situation to the present and the second one to either the future or the speaker's modality appears to follow from this combination of tense and aspect. The only finite tense forms in Russian are the present and the past tense, and the latter is opposed to the former in one dimension, not two, with a preferably temporal interpretation, and a modal one instead if a temporal interpretation would be inadequate in a given discourse.

This leads us to postulating a single general meaning for the past tense and the present tense in Russian, not basically different from Janssen's (1988: 128 etc.) analysis of the general meanings of the Dutch tenses. The difference between the two languages is found in the possibilities of 'origin' placement, which is in Russian generally determined by declarative and cognitive verbs for the domains of the events denoted by them, be it by means of object, complement, or *poka* clauses, or other discourse domains which are ascribable to cognition as in (12.a) above (whereas in Dutch and other Germanic languages there are only restricted possibilities of shifting the vantage point of the relevant origin, attested especially in reported speech with a main verb in the future, cf. a.o. Janssen 1990: 7). This principle of semantic congruence from the cognitive point of view takes precedence over general coherence principles valid for parts or discourse structures as established across languages.

The principle of semantic congruence in Russian narrative discourse may be said to underlie a wide range of modal interpretational possibilities, which may and do indeed occur whenever a temporal interpretation of a tense form is precluded by the context or the speech situation, as illustrated by (13.a).

- (13) a *Pošli* (PERFECTIVE PAST)!
 '(Let's) get going!' (With the speaker(s) and the hearer(s) still present.)

On the other hand, whenever the context or the speech situation (i.e. the narrative discourse) allows for a temporal interpretation of tense, this is found with the same form, as illustrated by (13.b)

- (13) b Tak nam i *stučilos'* (PERFECTIVE PAST). *Pošli* (PERFECTIVE PAST).
'And so it *happened* to us. *We left*.'

Modal use and the corresponding interpretation of the past tense reflects the speaker's/narrator's vantage point; it may be the agent's vantage point only if the agent is also the narrator in the relevant subpart of the narrative discourse (and if this is not stated explicitly, it is understood from the impossibility of a temporal interpretation due to its discrepancy viz. the narrative setting). In a comparable way in Russian, modal use of the present tense occurs under the same conditions, as reflecting the agent's and/or the narrator's vantage point. It is found whenever specific and non-specific (including so-called 'gnomic') temporal interpretations are precluded within the narrative discourse which always comprises the immediately preceding sentence within the same thematic unit and in the transitive way possibly extends over larger stretches of the narrative discourse. An example of what may be called modal use and the corresponding interpretation of the present tense is found in (14.a).

- (14) a V molodosti, skučaja, *byvalo* (IMPERFECTIVE PAST), v te dni, kogda Fedor Ivanovič nadolgo *uxodil* (IMPERFECTIVE PAST) s vizitami, ona *měčtala* (IMPERFECTIVE PAST) o sobstvennoj masterskoj. V bol'šoj, svetloj komnate *sidjat* (IMPERFECTIVE PRESENT) milovidnye devuški, naklonjas' nad nispadajuščimi volnami šelka, a ona *pokazyvaet* (IMPERFECTIVE PRESENT) im fasony i vo vremja primerki *zanimaet* (IMPERFECTIVE PRESENT) svetskoj besedoj elegantnyx dam. Mašinopisnoe bjuro *bylo* (PAST), požaluj, ešče lučše: kak-to značitel'nee. (Čukovskaja 1989: 5f.)

'In her youth, bored, usually on the days when Fedor Ivanovic *went* on his long rounds, she *dreamt* of having her own dressmakers. In a big, light room, pretty girls *would sit* tumbled above silk waves, and she *would show* them the patterns and *distract* elegant ladies with wordly conversations during the fittings. The typing department *was*, if you like, even better: somehow more important.'

It is exclusively due to the context that the present tense occurrences in the second sentence of (14.a) may be interpreted as modal, rather than as historical or gnomic present tense uses, in view of a clash between the imperfective aspect of these examples and their non-integration into the temporal line of the narrative discourse. Other examples of temporality vs. modality, usually found with perfective verbs, may be distinguished on the level of interpretation by taking into consideration a.o. pragmatic factors as in (14.b).

- (14) b Ja znaju (IMPERFECTIVE PRESENT) neskol'ko zagadočnyx strannyx smertej, pričinu kotoryx voz'mutsja (IMPERFECTIVE PRESENT) ob"jasnit' tol'ko spirity i mistiki, čelovek že so svežej golovoj v nedoumenii razvedet (PERFECTIVE PRESENT) rukami i tol'ko. (Čexov, Sledovatel'; Bondarko (1971: 53))

'I know of several puzzling strange deaths, the explanation of the cause of which *might be* undertaken only by spiritists and mystics, but a cool-headed man *would* only raise his hands in perplexity and that's all.' (MODAL)

'I know of several puzzling strange deaths, the explanation of the cause of which *will be* undertaken only by spiritists and mystics, but the cool-headed man *will* only raise his hands in perplexity and that's all.' (TEMPORAL)

If we consider this sentence in isolation, we can see that the modal interpretation is the most likely one, in part due to the combination of the perfective aspect with the present tense, and in part due to such pragmatic considerations as specificity vs. non-specificity of the actants, by which in combination with the given lexical meanings, the non-specific interpretation is the most frequent one. This is how this sentence has been used in the narrative discourse indeed. In a different narrative discourse, however, for example if told by someone who knows how some specific spiritists and mystics behave as distinguished from the expected behaviour of a specific cool-headed man, the temporal interpretation given in (14.b) would be possible as well. Even if the temporal interpretation would be possible or preferable, the modal interpretation is never fully ruled out with the present tense of perfective verbs. This is due to the perfective aspect, which denotes a situational change, and with the present tense, the second of the two situations involved in the change follows the situation which holds at the vantage point of the relevant origin. Given the rule of 'sequential connection' in Russian (cf. (8) above), the second situation of the perfective aspect is either temporally bound to the narrative discourse, or interpreted as bound exclusively due to the agent's and/or the narrator's cognitive viewpoint, i.e. modal. We can see now that the 'sequential connection' of the Russian perfective aspect, which dictates temporal binding to either the temporally sequential or superordinate domain, if available, forms part of the same textual component based on semantic congruence which has been established to play a role in the tense distribution in subordinate clauses in Russian.

Whereas the present tense of the perfective aspect in Russian inherently, due to the aspect, combines the temporal and modal interpretations and even a narrative discourse favouring the temporal interpretation cannot fully rule out the modal one, the present tense of the imperfective aspect may have temporal interpretations of various scope of simultaneity with the vantage point, and modal interpretations of the imperfective present in Russian occur only if no temporal interpretation is possible within a given narrative discourse, as in the second sentence of (14.a) mentioned above.

In a way comparable to what Fabricius-Hansen (1986: 75 etc.) established for German, the scope of the temporal interpretation of the present tense in Russian

depends on the aspectual, lexical, and discourse context in the sense of temporal adverbials, other tense forms, and the sort of sentence in which it occurs in subordination, as shown above. In the absence of a contextual determination of scope, the interpretation of general validity is found as the least specific one, in accordance with the meaning of the present tense, by which an event is presented as lying within the advancing stream of current and developing events as surveyed from the vantage point of the relevant origin. This is illustrated by the following example.

- (15) Tak že izdavna *povelos'* (PERFECTIVE PAST): na Rusi novogodnij prazdnik *ne obxoditsja* (IMPERFECTIVE PRESENT) bez Deda Moroza, a v Amerike - bez Santa-Klausa. Tak vot, v Mokvu *sobirajutsja* (IMPERFECTIVE PRESENT) priexat' srazu 200 Santa-Klausov! (Pravda, Moskva, 6. 12. 1989: 6)
'It has been like this since long ago: in Russia no New Year's feast *passes* by without Grandpa Frost, and in America - without Santa Claus. So by and by, two hundred Santa Clauses *are planning* to arrive in Moscow!'

This example shows once again that the scope of the present tense interpretation depends on the context (and pragmatic considerations), and can be broadened or narrowed down by it, whereas the meaning on which this interpretation is based remains the same as defined relationally, in paradigmatic terms. This and the other examples presented here illustrate the fact that the distinction between the 'basic' variant of the present tense, with reference to present time, and its 'non-basic variants' is not one of the system, but only of its use.

General conclusions

Tense meanings allow for various temporal and modal interpretations as related to textually and pragmatically different vantage points of the relevant origin. Languages differ typologically in the textual binding possibilities of these vantage points, especially as semantically related to declarative and cognitive events viz. their domains, and also more generally in the possibilities of taking the agent's and/or narrator's vantage point and disregarding the temporal one. Russian is an example of a language which allows for a relatively high degree of such meaningful choices based on vantage point shifts and semantic congruence and expressed also by means of word order and intonation. Dutch and English are examples of languages which allow for vantage point differences as well, but order secondary vantage points in the past with respect to the primary one(s) (and 'transform' them accordingly, in some investigators' terminology), as reflected a.o. by tense sequence rules operative in subordinate clauses. This 'ordering' typological property is paralleled by other characteristics of these languages, including partly fixed word order.

It seems to be a general property of languages that a narrator may switch out of the temporal organization of the narrative discourse (and, as formulated by Fleischman (this volume), "neutralize one or more of the properties which collectively define the Preterite as the unmarked tense of narration"). This switching

out may involve placing the vantage point within a period narrated in the past (in which case the so-called 'historical present' is used), or making a general statement from the agent's and/or narrator's vantage point (in so-called 'evaluative' statements in the sense of Labov 1972 and Silva-Corvalán 1983), or switching out of the narrative temporal sequence altogether and presenting an additional stream of developing events, distinguished from the narrative temporally ordered one and ascribable to the agent's and/or narrator's vantage point and imagined or imaginable stream of developing events. These are modal tense uses, and languages differ greatly in possibilities of this usage within the constraints set by lexical, grammatical, and pragmatic parameters.

Switching out of the temporal narrative discourse is done typically by means of the present tense. Notwithstanding its potential present, past, omnitemporal, and atemporal reference, the meaning of the present tense is always to present an event as being of 'actual concern to the vantage point of the relevant origin' (cf. Janssen 1990: 24), and this meaning is taken into account by the interpretation of the event as lying within the advancing stream of current and developing events as surveyed from the vantage point of the relevant origin. According to some investigators (following Jakobson 1932), it is because of the unmarked nature of the present tense (as opposed to the preterit which is marked) that it is compatible with a context which forces a past interpretation of the verbal process (i.e. 'event'). However, we have seen a mirror image of this in connection with the preterite, or the past tense, which is in Russian and not only there compatible with a context which forces a non-past interpretation of the verbal process (which is then interpreted as modal). There is still an asymmetry between the preterite and the present, but of a different kind: whenever there is no temporal specification (i.e. with omnitemporal and so-called atemporal reference), the present tense is used. This means that whenever tense is not at issue, the present tense is used as the representative of the category tense - and so because its meaning makes it suitable for that use. This is the only asymmetry which may be assumed to be general in nature, possibly justifying the use of the labels 'marked' for the preterite and 'unmarked' for the present. These are labels of use, and in accordance with the tense meanings.

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MEANING AND USE OF THE DUTCH PERFECT

Sies de Haan

Abstract

In this paper, I am concerned with the perfect as a language-specific category in the grammar of Dutch. In the view of Van Es the meaning of this syntactic construction, consisting of a form of the auxiliaries *hebben* or *zijn* and a past participle, boils down to the fact that it presents an event retrospectively, summarized and detached from its background. These semantic properties relate to the compound nature, c.q. the syntactic structure of the perfect construction. These semantic and syntactic characteristics of the Dutch perfect have their roots in the historical development of the construction.*

1. The Dutch perfect

In traditional Dutch grammar the term *perfect* is used to refer to syntactic constructions consisting of a form of the auxiliaries *hebben* or *zijn* and a past participle. Comrie, in his book on aspect (Comrie 1985), views the perfect as a language-universal semantic category. He warns us that not everything referred to as *a perfect* in grammar-books, really is *a perfect*, in his sense of that notion, that is.

My approach starts from the opposite direction: I am concerned with the perfect as a language-specific category in the grammar of Dutch. There are a host of questions to answer regarding this category. For example, how do we have to analyse the distribution of the two auxiliaries *hebben* and *zijn*? These are in many cases in complementary distribution, though not in all. Or what distinguishes the *hebben*-perfect from constructions with *hebben* as a full verb and the past participle as a predicative complement to the direct object, or the *zijn*-perfect from a copular construction of *zijn* + a past participle? And what is the relation between the two elements of the perfect construction, the auxiliary and the past participle?

And last but not least, what is the meaning of the perfect-construction? According to the Dutch grammatical tradition this can be glossed as "the event is presented as completed before or at the present moment". This kind of formulation is inapt: there are uses of the perfect in which the event may be ended without being in the more strict sense *completed*; and there are uses of the perfect in which the event has to come about in the future.

My aim here will be primarily to look into the meaning and use of the Dutch perfect. More specifically, I want to explore a theory about this meaning, put forward by the Dutch grammarian Van Es, in relation to the historical development of the construction.

2. Semantic analysis of the Dutch perfect

2.1. The meaning of the Dutch perfect 1

According to Waugh in her article on the French *passé composé* (Waugh 1987), like the other tense forms the perfect has as its basic function *the location of the verbal event in time*, the time moment being delimited deictically as past, present, or future with respect to some deictic reference point. She maintains that time, as linguistically conceptualized, is the integrating factor for the different uses of the *passé composé*. The relation between the *passé composé* and location in time is the organizing principle in her discussion.

Here my analysis of the Dutch perfect diverges from her theory of the French perfect. Following the *ANS* we have to point out with regard to the Dutch perfect that in agreement with the finite verb form it behaves with respect to the category *tense* like the present tense: the perfect as such, like the present, does not express any temporal location in terms of past, present and future. The choice between the existing possibilities, being past, present, future, or no historical time period at all, depends on context and/or situation. Parallel to the present, there is a historical perfect, and a perfect referring to the future (as in (1)), and a perfect which expresses a 'timeless' state of affairs (as in (2)),...

- (1) Morgen *hebben* we om deze tijd Parijs al *bereikt*.
Tomorrow we will have reached Paris already by this time.
- (2) Als hij te laat komt, dan *heeft* hij zich *verslapen*.
If he comes too late, then he has overslept.

Location of the verbal event with respect to past, present or future is no function of the perfect, nor of any other so called verbal tense in Dutch. However, as we shall see, due to the past participle at least the perfect involves some other temporal meaning element in that it expresses *anteriority* c.q. *retrospection*.

2.1.1. Van Es on the meaning of the perfect

The approach of the perfect of the Dutch grammarian Van Es is the most interesting and promising that I know of (cf. Van Es 1971 and Van Es and Van Caspel 1974). Van Es provides us with a characterization of its general meaning and with a detailed application of it to different types of uses. At the background of this meaning-characterization, there is a general theory of verbal aspect. The perfect has to do with the category of what Van Es calls the *absoluting* aspects. These aspects represent the verbal event abstracted from the flow of time and the continuing succession of events.

Van Es refers to the perfectic aspect, typically exemplified by the perfect, as the most important absoluting aspect. According to Van Es the perfectic aspect *lifts the event out of the course of time, isolates it as a fact, finishes it off temporally*.

2.1.2. The perfect and the notion *completion*

According to Van Es the perfectic representation of an event is not so much a representation of "being completed", but rather that of "finishing off" and "isolating temporally". This links up with a remark of Comrie (Comrie 1985: 46; cf. also Waugh 1987: 7) on the interaction of the perfective/imperfective-distinction and the distinction between telic and atelic events: a perfectic form referring to a telic event implies attainment of the terminal point of that event:

- (3) Hij heeft een stoel gemaakt.
"He has a chair made"
He has made a chair.

(3) implies that the chair has been completed. Following Comrie we may assume that

"such examples may have given rise to the widespread view that perfectivity¹ indicates completedness"(o.c. 46, n.2).

This view, however, is mistaken, as we can see in (4):

- (4) Hij heeft met een paar vrienden gespeeld.
"He has with some friends played"
He has played with some friends.

where no completion of the playing is implied.²

Van Es's semantic description of the Dutch perfect is very similar to the definition of *perfectivity* in Comrie (1985: 3). Re-phrasing the formulations of Comrie we could say that in (5) the reading-event is represented as an undivided whole; it is presented without any reference to the individual phases that make up the event. In (6) the same reading-event is presented with explicit reference to (some part of) its temporal course.

- (5) Jan heeft gisteren dit boek gelezen.
"Jan has yesterday this book read"
John read this book yesterday.
(6) Toen hij het las, belde de postbode aan.
"While he it read, rang the postman"
While he was reading it, the postman rang.

Comrie explains the difference between this perfective and imperfective meaning element as the difference between an external and an internal point of view (o.c. 4). In the case of the imperfective aspect he speaks of a crucial involvement in the internal structure of the event. This perfective/imperfective distinction is an important element in the difference between the Dutch perfect and preterit, and is, as such, of great stylistic value. Whereas the perfect isolates an event, the preterit presents it as a part of the succession of events in the flow of time.

In the view of Van Es the meaning of the Dutch perfect boils down to the fact that it summarizes an event. It presents an event retrospectively and detached from its background. These semantic properties relate to the compound nature, e.g. the syntactic structure of the perfect construction. They are concerned with the effects of the historical process of bringing together the two parts in one construction. This means that the semantic structure of the Dutch perfect has its roots in its historical development. I will now look into this relation between linguistic history and meaning.

2.2. Historical development of the Dutch perfect

The historical development of the Dutch perfect has much in common with the development of the perfect in other Germanic languages and also in the Romance languages. However in the case of each language there are language-specific variations on the general pattern. As De Vooy's remarks in his Nederlandse Spraak-kunst the facts regarding the perfect indicate that in this area of Dutch grammar a historical approach is necessary for the understanding of the present language-situation. In my opinion a historical approach is rewarding in the case of the perfect, because the linguistic history that led up to this construction can provide us with some clues about its grammatical identity. The classical work on this subject is Kern (1912).³

2.2.1. The past participle

The invariant element in the two types of perfect-constructions is the past participle. This linguistic element developed from an Old Germanic verbal adjective⁴ which, in itself, had nothing to do with the system of the verb. It still shows the traces of this origin. Past participles of transitives and mutative intransitives can still be used as adjectives. In many cases of adjectival use they display a verbal value; other cases are transitional to the status of pure adjectives; ultimately in many cases only the form of the element corresponds to that of a past participle.

Originally this verbal adjective could only be derived from a transitive verb; later on derivation of a mutative intransitive verb also became possible. According to Kern, in the case of mutative verbs, this verbal adjective expressed that *someone or something is in a certain state, and got into that state through an event from without* (in the case of a transitive verb stem), or *through an event within the person or thing in question* (in the case of an intransitive verb stem). The event indicated by the verbal stem of the adjective is present in the background of what is represented by the verbal adjective, *as the cause of the present state of the person or thing.*

With regard to the immutative verbs, only the transitives could form the verbal adjective, indicating that *a person or thing experiences an event of the kind in-*

dicated by the verbal stem. This imperfective verbal adjective could not be used predicatively. For the immutative intransitives the meaning of the verb stem clashed with the meaning of the verbal adjective form. The kind of event expressed by these verb stems doesn't involve a person or thing that experiences the event or the state resulting from it. This fact even prevented the derivation of the verbal adjective in their case. When the perfect category was taking shape, these verbs developed the possibility of forming a past participle. In Modern Dutch, these participles still can't be used in an adjectival function, or at best they can in some peripheral cases.

2.2.2. The development of the Dutch perfect

The verbal adjective became the centre of syntactic restructuring processes in the Germanic languages from which the perfect-constructions arose.⁴ For Dutch Kern distinguishes the following developments.

First there is the verbal adjective of mutative intransitives. In Old Germanic this could be used in the copular construction with *zijn*, in an agreement-relation with the subject. This construction had two uses, one emphasizing the existence of the state resultant from the event, and the other emphasizing the getting into that state. These two uses did not constitute two discrete, differentiated categories, but blended together. The latter use led to the development of a perfect meaning.

As to the copular construction of *zijn* + the passive verbal adjective (i.e. the adjective derived from a transitive verb stem, expressing a representation oriented towards the experiencer), this construction developed a passive perfect use for the perfective transitives in Middle Dutch. This use is based on a semantic shift in which the event indicated by the verbal stem became more prominent and the state resultant from the event is pushed into the background. Initially the verbal adjective of imperfective transitives could not be used in a predicative function. The emergence of the perfect category made it possible for this forms to occur in a construction with *zijn*. For this no meaning-shift was necessary, because in the case of the imperfective transitives the meaning of the verbal adjective already implied a verbal value, namely the experiencing of an event of the kind concerned.

A construction with the verbal adjective, more recent than the copular construction, is the construction with *hebben*. In this construction the verbal adjective functioned originally as a predicative modifier of the direct object, which is still possible in a restricted set of cases, as in (7):

- (7) Hij heeft zijn haar achterover gekamd.
"He has his hair backwards combed"
He has his hair combed backwards.

In Old Germanic, we already find cases in which the verbal adjective doesn't agree in gender and number with the direct object. In these cases the latent verbal meaning-aspect is activated and dominates the adjectival meaning, indicating a restructuring of the syntactic relations: the verbal adjective became primarily involved with the verb *hebben* and became the major verb of the sentence.

The development of this new syntactic interpretation of constructions like (7) was a slow one. In Middle Dutch we still find both uses. Originally imperfective transitive verbal adjectives could not be used as a predicative modifier of the direct object in *hebben*-constructions. After a while they could be used in these constructions. Eventually the *hebben* + past participle-construction could occur without a direct object if the verb allowed it. Initially immutative intransitive verbs could not form the verbal adjective. Therefore these verbs could not develop a perfect on their own, but when the perfect of the other verbs settled down, they joined the *hebben*-perfect. To that end they developed a past participle. These past participles can still hardly ever be used in adjective positions.

The emergence of the Dutch perfect has its roots in the Old Germanic language-situation, but mainly came about in the Middle Dutch language-phase. In Old Germanic there was no perfect-form, and the meaning of the perfect was covered by the preterit-form. When the verbal adjective developed perfect uses in predicative functions, the preterit initially kept its perfect-function. But when these new perfect-constructions were used more and more, the preterit became restricted to the presentation of events as viewed from within and as coming about in a reality which is disconnected with the frame of reference. So the emergence of the perfect not only involved an adaptation of existing constructions to new functions, but also a restriction of the use of the Old Germanic preterite.

2.3. The meaning of the Dutch perfect 2

As I have already mentioned, the meaning of the Dutch perfect comes down to the fact that it represents a retrospective viewpoint, that it summarizes an event, and detaches it from its background. All these properties have to do with the compositional characteristics of the perfect construction, that is, with the effects of the two parts brought together in one construction in the historical development leading up to the perfect. I will now turn to this *iconic* character of the perfect-construction, and take a look at its predecessors.

The past participle, the invariant element in the various perfect-constructions, is the result of a re-formation of the verbal adjective. This re-formation contained a semantic shift in which the expression of the verbal *event* took precedence over the expression of the *state* which resulted from it.

In the meaning of the verbal adjective the event only existed as the cause of the expressed state. This means that it was present *retrospectively*, anterior to the existence of this state. Furthermore, this means that the event was present, not in its course of time, but as *an integrated whole*, in the formulation of Waugh (1987:4), "as a dimensionalized or global whole". These semantic elements of *retrospection* and *integrated whole* were carried over from the verbal adjective to the past participle, and became central elements in the meaning of the perfect-construction in its different forms.

The past participle could easily arise from the verbal adjective in the copular

construction with *zijn*, for example under influence of temporal expressions. This applies to verbs with a perfective Aktionsart. Imperfective transitive verbs had to develop the possibility of a predicative use for the form concerned. In this case the change was mainly syntactic. The required meaning shift was not so drastic, because the imperfective transitive verbal adjective indicated duratively that a person or thing experiences an event of the kind expressed by the verbal stem. The expression of the event had to take the shape of a retrospective viewpoint which presents it as a global whole.

The copular construction *zijn* + verbal adjective had a stative verbal value. It characterized the referent of the subject as being in or reaching the state indicated by the verbal adjective. With the semantic shift to the indication of an event presented from a retrospective point of view, the role of the *verb zijn* was reduced. It only expresses a deictic indication of the point of orientation for the retrospection. As the verbal adjective became a past participle, the copular verb became an auxiliary.⁶

As a consequence of this development the perfect is characterized with regard to its copular predecessor by a splitting up of the deictic reference to time into two time-periods. It refers to the moment from which the retrospection takes place, and through that moment it refers to the time at which the retrospection is directed, i.e. the time at which the event happened. This twofold time-structure corresponds to the binary structure of the form of the perfect (cf. Janssen 1987 and Waugh 1987: 24), and leads to the temporal meaning element of the perfect, the expression of anteriority.

The development of a perfect use of the structure *hebben* + verbal adjective involved a number of changes besides the transformation of the verbal adjective into the past participle. At the beginning of this development the construction was restricted to perfective transitives.

The verbal adjective, a predicative complement of the direct object, lost its direct connection with that object and became attached to the verb *hebben*. In the *hebben*-perfect the direct object no longer functions as the subject of the past participle, leaving only one subject/predicate structure.

In this new syntactic structure, *hebben* came to function as an auxiliary of the past participle. This means that the independent lexical function of this verb altered into a dependent one. Like *zijn*, *hebben* came to indicate deictically the point of orientation for retrospection.

In addition *hebben* then related its subject as the agent participant to the past participle. The reverse of this is that the past participle lost its passive meaning in the construction with *hebben*. Just like the verbal adjective the past participle normally has a passive meaning in the sense that in the representation it expresses, the point of orientation (its 'subject') is the person or thing experiencing the event involved. But in the *hebben*-perfect the subject of *hebben* became an agentive point of orientation in the representation expressed by the *hebben* + past participle construction as a whole.

In this connection Overdiep (1949: 336) points out that *hebben* has dynamic/perfective uses, in which its subject must be interpreted as an agent; cf. (8-10):

- (8) Ik heb het hooi binnen.
 "I have the hay in"
 I have brought in the hay.
- (9) Hij heeft jou aan het werk.
 "He has you working"
 He has got you at work.
- (10) Eindelijk heeft zij hem aan de telefoon.
 "At last has she him on the telephone"
 At last she has got him on the telephone.

Duinhoven (1988: 22-5) elaborates this fact and connects it with the etymology of *hebben*, in form and meaning related to the Latin verb *capere* and with clear perfective/resultative uses, as in (8-10). In (11) *hebben* and the past participle *geverfd* implicate in a non-perfect interpretation an action with the subject of *hebben* as the agent:

- (11) Hij heeft zijn hek groen geverfd.
 "He has his fence green painted"
 He has his fence painted green.

According to Duinhoven *hebben* indicates an action of a nondescript kind; *geverfd* specifies what kind of action is involved.

When the structure *hebben* + direct object + verbal adjective had assumed a perfect interpretation with perfective transitives, it became possible for the imperfective transitives to appear in this construction. As I have pointed out before, their verbal adjective indicated duratively that a person or thing experiences the event expressed by the verbal stem. So, for the transformation to a past participle the representation of the event had to take a retrospective approach in which it is seen as a complete, global whole. This was also needed for their use in the passive perfect with *zijn*.

A final step in the emergence of the Dutch perfect regarded the imperfective intransitives. Initially a verbal adjective could not be derived from these verbs. But when the perfect category had taken shape, these verbs developed a past participle that could be used in the *hebben*-perfect construction.

As a result of these developments we have a constant paradigmatic relation between the following (a) and (b) sentences, respectively of a present to a perfect, with an unmarked present and the perfect marked for *retrospection*:

- (12a) Mijn buurman sterft.
 My neighbour dies.
- (12b) Mijn buurman is gestorven.
 My neighbour has died.
- (13a) Het geweer wordt geladen.
 The rifle is being loaded.
- (13b) Het geweer is geladen.
 The rifle has been loaded.

- (14a) Hij laadt het geweer.
He is loading the rifle.
- (14b) Hij heeft het geweer geladen.
He has loaded the rifle.
- (15a) Zij slaapt.
She is sleeping.
- (15b) Zij heeft geslapen.
She has slept.

The distribution of *hebben* and *zijn* in the perfect construction is regularly connected with semantic properties of the two constructions that led up to the perfect construction. The *zijn*-perfect developed from the copular construction with *zijn* and the verbal adjective of a mutative intransitive or that of a transitive, with an experiencer in the subject function; i.e. in the case of transitive verbal adjective with a passive meaning. The *hebben*-perfect developed from a construction with a transitive verbal adjective as a predicative modifier of the direct object of *hebben*, with an agentive subject. In this construction *hebben* expresses the coming about of an action of an unspecified kind. This explains why immutative intransitive verbs joined the *hebben*-perfect: these verbs indicate an action performed by the subject of the verb. This fits in with the characteristics of the *hebben*-perfect.

In the perfect construction the meaning of the verbs *hebben* and *zijn* has strongly weakened, but their agentive respectively nonagentive character still asserts its influence. For the present day language users however the distinction seems to become less firm (De Vooys 1967: 140/1), as is shown by the fact that some verbs have moved from the *hebben*-perfect to the *zijn*-perfect or the other way around.⁷ Besides the weakened meaning of the auxiliaries this development arises perhaps from the fact that many verbs can occur with both auxiliaries, though with slightly distinct meanings.

3. The use of the Dutch perfect

We have seen that the semantic properties which Van Es attributes to the Dutch perfect, namely *the presentation of the event retrospectively as a complete whole*, can be carried back to the semantic structure of the Old Germanic verbal adjective that was transformed to the past participle of the perfect-construction. Now I will touch on how these semantic properties function in the use of the perfect.

In most cases the perfect deals with past events. But the perfect does not just report or bring to mind a past event, as the preterit does.⁸ The perfect creates a point of view in time posterior, and therefore exterior to the event. From that external point of view the event is presented retrospectively as an unstructured whole. An important effect of this mode of presentation is *the highlighting of the event*: by isolating it as a complete whole the event is detached from its background.

Language-users can have many reasons for removing an event from its background. In conversations the perfect is an appropriate form to broach a subject. The perfect-form lends itself pre-eminently to bring up an event from a recent,

but also from a more remote past, to talk about it, to react to it, or to have it reacted to, to report upon it, ... and so on.

Van Es points out that the perfect need not indicate one isolated event. It can summarize a whole course of events or a series of similar events as one unit. The contrary is maintained by the ANS. In demarking the perfect from the preterit, the ANS states that the perfect indicates an occasional, isolated event, and the preterit an event of unlimited duration, a habit etc. (o.c. 460), and illustrates this vision with (16) and (17).

- (16) Vorig jaar heeft opa nog gefietst.
"Last year has grandpa still cycled"
Last year grandpa still cycled.
- (17) Vorig jaar fietste opa nog.
"Last year cycled grandpa still"
Last year grandpa still cycled.

(16) implies that grandpa cycled only occasionally, and (17) that he cycled regularly. Up to this point we can agree with the ANS.

But when we add a time-frequency adjunct or an adjunct of duration to (16), we can also express a habit with the perfect:

- (16a) Vorig jaar heeft opa nog dagelijks gefietst.
Last year grandpa still cycled daily.
- (16b) Vorig jaar heeft opa nog het hele jaar gefietst.
Last year grandpa still cycled the whole year.

Here we have what Van Es calls the summarizing perfect: a perfect which isolates as one whole a course of events that takes a longer period, as in (18), or which presents an indefinite quantity of similar events in one fell swoop, as in (16a) and (16b) and in (19).

- (18) Mijn werk is langzamerhand te veel voor mij geworden.
"My job has gradually too much for me become"
My job has gradually become too much for me.
- (19) We hebben thuis altijd honden gehad.
"We have at home always dogs had"
We have always had dogs at home.

Sentences like (18) can be used in situations in which a state of affairs, similar to the summarized state of affairs, exists at the time indicated by the auxiliary. (19) can be used when we still have dogs. Regarding this kind of perfect use the ANS maintains that it does not represent the event as *completed*, on the assumption that the perfect usually does represent an event as completed.

As I said before, the perfect never expresses *completion* as such. The ANS points out that sentences like (19) can also be used when the kind of situation, summarized by the perfect, does not hold at the point of time indicated by the auxiliary. If a sentence with a perfect construction expresses completion in a strong

sense, then there is another element responsible, be it the lexical meaning of the participle or an element in the context or situation.

If a sentence with a summarizing perfect is used with regard to a situation in which a state of affairs exists similar to the summarized states of affairs, then the perfect still represents the summarized states of affairs from an external point of view, retrospectively and as a complete whole. This does not exclude the re-appearance of this kind of state of affairs in the extralinguistic reality, now and in the future. The perfect form however does not provide us with the information whether this is the case or not. The perfect form expresses a representation of a sequence of states of affairs that abstracts from a possible continuation up to and past the reference moment. In such cases the perfect is very apt in order to bring up the summarized sequence for reflexion or reaction, or to question it, as in (20) and (21):

- (20) Waar blijf je? We hebben je in geen weken gezien.
What keeps you? We haven't seen you for weeks.
- (21) Hoe lang woon je hier? Ik heb hier altijd gewoond.
How long do you live here? I have always lived here.

Van Es points out that the perfect is used very characteristically in discursive and reportorial prose. The perfect is appropriate in such prose for the presentation of the facts in a demonstration, the themes one treats, the assumptions one makes, the evidence one cites, the conclusions one draws, ... and so on.

The perfect is particularly suited to journalistic writing. It is used to emphasise the essentials, to lift out the main points, to underline a conclusion. In newspaper reports the perfect is often used in alternation with the preterit. At the beginning of an article, the perfect is used to introduce a subject in outline; then the preterit is used to elaborate on it, to give substance to the outline. Meanwhile, switches are possible to the perfect in order to highlight important facts. Finally the perfect can be used with effect for a conclusion. Van Es calls this a "classical" structure of a newspaper report.

4. Conclusion

I have touched upon some applications of the perfect to show the possibilities it offers by its presentation of an event as a complete, independent whole. They are just some of the countless possibilities open to a creative language user. I have tried to make clear that the perfect can be an important instrument in structuring a text by way of its meaning. This structuring involves the indication of prominence and the presentation of events in some perspective. Now I conclude with some summarizing remarks.

To my mind the meaning of the Dutch perfect comes down to the fact that it represents a retrospective viewpoint, that it summarizes an event, and detaches it from its background. I have tried to show that all these properties have to do with the compositional characteristics of the perfect construction on one side, and on

the other side with the effects of the two parts brought together in one construction in the historical development leading up to the perfect.

We have seen that the semantic properties we can attribute to the Dutch perfect, namely *the presentation of the event retrospectively as a complete whole*, can be carried back to the semantic structure of the Old Germanic verbal adjective that was transformed to the past participle of the perfect-construction.

The semantic elements of *retrospection* and *complete whole* were carried over from the verbal adjective to the past participle, and became central elements in the meaning of the perfect-construction in its different forms.

Location of the verbal event with respect to past, present or future is no function of the perfect, nor of any other so-called verbal tense in Dutch. Location in time is determined by a variety of contextual factors. In the case of the perfect this bears upon the point of reference that serves as a point of retrospection. Different from the other so-called verbal tenses the perfect does involve however, some temporal meaning element: by expressing retrospection it expresses anteriority.

Notes

- * I wish to thank Sally Miedema for her helpful assistance in diminishing my misuse of the English language, and Jadranka Gvozdanović and Theo Janssen for their stimulating critical remarks.
- 1. Note that there is a terminological problem here: Comrie uses the term *perfectivity* where Van Es uses the term *perfectic*; and Van Es uses the term *perfective* in a way related to Comrie's use of the term *telic*, namely to indicate a phase aspect, expressing "being directed at the reaching of a terminal point".
- 2. The same point is made in Balk (1963: 128), where we can read that the opposition *onvoltooid* (not completed) - *voltooid* (completed) naturally bears upon *being* or *being no more* in progress, and not upon being or being not brought to an intended end.
- 3. More recent relevant literature: Duinhoven (1985, 1988) and Van der Wal (1986, chapt. 3).
- 4. According to Duinhoven (1985: 121-6) this verbal adjective in its turn developed from an adverbial compound.
- 5. According to Van der Wal (1986: 56 and 70) these change processes represented innovating mutations in the Germanic languages, whereas the corresponding developments in the Romance languages represented conservative mutations. This makes the assumption plausible that the changes in the Germanic languages are a case of borrowing.
- 6. On this proces of *copula auxiliarization* Dik (1987).
- 7. Recent research on these changes is reported in De Rooij (1988).
- 8. I strongly disagree with the conclusion of Duinhoven (1988: 26/7) who views the Dutch perfect as a past tense. He even uses the term *preteritum* in this connection. This can only hold in a very superficial way. Duinhoven completely disregards the semantic opposition between the perfect and the preterite.

And he neglects the possibility to use the Dutch perfect with regard to the future as in (5) Morgen hebben we om deze tijd Parijs al bereikt (Tomorrow we will have reached Paris already by this time).

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PRETERIT AS DEFINITE DESCRIPTION

Theo A.J.M. Janssen

Abstract

The aim of this paper will be to show that the use or interpretation of Dutch tense forms is comparable to that of definite descriptions. The use or interpretation of tense forms will prove to require the background information of a close-fitting scene in which the event referred to is embedded. In order to clarify this prerequisite I will outline my main points of departure with regard to the study of tenses in Dutch: only two categories of tense forms, present-tense and past-tense forms, are assumed; tense forms basically do not express time relations but relations of referential concern between speaker and event; present-tense and past-tense forms are semantically closely related to 'this'- and 'that'-type demonstratives. The paper concentrates on the use or interpretation of past-tense forms.*

1. Introduction

The introductory sentence of a newspaper report in Dutch is often put in the present perfect while the article goes on to describe the further course of events by means of the preterit (see e.g. Overdiep 1923). This indicates that the preterit is preferred to the present perfect as a narrative 'tense' in Dutch. In this article I will try to explain why the preterit qualifies for this function. With regard to several languages it has been suggested that the preterit can be viewed as definite or anaphoric. I will briefly mention objections raised in the literature with regard to such an approach to the preterit in English; one type of criticism concerns the idea that the preterit is a kind of a definite description and another focusses on the idea that the preterit contains a hidden 'then'.¹

McCoard (1978) has made a vigorous attempt to reject the definiteness view of the preterit.² However, there are three problems with his objections. Firstly, the classic tense analysis, associating the event with a certain interval of time, is conceived by him as a firm base. But this kind of analysis is challengeable, as I will show below. Secondly, and closely related to the first point, McCoard assumes an intrinsic connection between tense and temporal adverbials. I will argue that if there is a connection, it is rather loose. Finally, McCoard objects to the definiteness view on the basis of an approach to definiteness that has crystallized considerably in the meantime. This offers the possibility of a successful re-examination of the preterit with respect to its definiteness.

In his careful study of the preterit in English Heny (1982) rejects a hidden 'then' in the model-theoretic interpretation of sentences like *I left a light on* as used by speakers of American English who "intend some definite past interval

relative to which it is asserted to be true" (1982: 133; 153). Pointing out several flaws in the quantificational approach in terms of intervals of time, he argues that "the *domain* of quantification is in fact highly restricted", while "only one (perhaps vaguely bounded) interval, in the very immediate past is relevant" (1982: 127). Wondering what device could "restrict the domain relative to which the quantification over past intervals is defined in any appropriate use of a past sentence" (1982: 152), Heny suggests that one should "restrict quantification induced by the interpretation of [a past sentence] to a domain determined by pragmatic factors" (1982: 153). To whatever extent he assesses the import of a pragmatic domain for understanding the preterit, Heny continues to analyse tense as a quantifier over some relevant interval of time.

Although we have to bear in mind that the usage of tenses in Dutch and English differs in several respects (witness the English translations of several examples following) we can observe that the preterit in Dutch and English share basically the semantic facet indicated above, however hazy it may have remained. In order to obtain a more concrete idea of this facet in Dutch let us consider the preterit and the present perfect in sentences such as (1) and (2).

- (1) *Er is iemand voor je aan de deur geweest.*
lit. There has someone been at the door for you.
'There was someone at the door for you.'
- (2) *Er was iemand voor je aan de deur.*
'There was someone at the door for you.'

The different usages of these two sentences can be elucidated as follows. Imagine, for instance, that in the course of the day someone was at the door for your son, who was at school at the time. When he comes home at the end of his school day, you can use the first but not the second sentence to report the visit appropriately. Sentence (2), however, will tend to be said when, for instance, your son left for a minute in order to post a letter and in the meantime someone came at the door. Thus, the preterit appears to be used when the event in question is well embedded in the given situation.

The requirement of a close-fitting situation for the application of the preterit can also be inferred from contexts of use like the following. Imagine someone is at the door asking for your son. Knowing that he badly needs all his time to prepare for a difficult exam the next day, you presume that he does not want to be disturbed, so you put off the visitor with an excuse. However, because you feel a bit uncertain about the action you have taken on your own initiative, you immediately report to your son what you did. To this end you can use sentence (2) appropriately, but not sentence (1). However, when you meet your son at lunch some time afterwards, the use of sentence (1) is perfect. In the given situation sentence (2) also could be used quite appropriately, if at least you have good reasons to presume that your son is able to relate the event mentioned, for instance, to the door bell ringing.

Obviously, in the case of the preterit the speaker places the event in question within an encompassing, rather close-fitting scene activated as the context of use.

A temporal specification makes no real difference in this respect, as can be illustrated with the following sentences.

- (3) *Er is zojuist iemand voor je aan de deur geweest.*
lit. There has just a minute ago someone been at the door for you.
'There was someone at the door for you just a minute ago.'
- (4) *Er was zojuist iemand voor je aan de deur.*
'There was someone at the door for you just a minute ago.'

Regardless of the temporal specification, basically the same interpretive distinctions apply as for the sentences in (1) and (2) in the applications mentioned above. Although temporal adverbials specify the time of an event, they do not contribute to the definiteness of a tense form, just as, for instance, *with my bag* in *Did you see a boy with my bag?* does not make *a boy* any more definite.

In the interpretations discussed, the past-tense form of sentence (2) is understood to be used deictically. The speaker is conceived as envisaging the situation at issue as closely connected to the context of use although the connection has not been established explicitly before. This observation shows that a close connection between the situation to be described and the context of use is a prerequisite for the use of a past-tense form, whether it is used deictically or anaphorically (as a matter of fact, I do not see any fundamental distinction between both types of use; cf. Krenn 1987: 124-25).

In the following, present-tense and past-tense forms are assumed to be the only tense forms in Dutch; the so-called 'compound tenses' sponge on their present and preterit auxiliary (cf. Janssen 1989a, b; 1990). I assume the use of both present-tense and past-tense forms to be subject to the same prerequisite of the speaker envisaging the situation to be described as closely connected to the context of use. In this respect there is a striking but inessential difference between the use of both tense forms. In the case of the past tense the context of use quite often is given explicitly by an introductory sentence put in the 'present perfect', bridging the gap between the event of reporting and the event reported.³

In section 2 the use of past-tense forms will be investigated in close connection with the use of present-tense forms. The semantic characterization of the present-tense and past-tense forms will be based on a comparison with the use of conspecific deictic expressions, notably demonstratives. Section 2 forms the framework for section 3, in which I will explain the use of past-tense forms in some data taken from a literary text. The conclusions are given in section 4.

2. 'Region-based' deictics

Can deictics such as tense forms and demonstratives share a common cognitive basis, and if so, to what extent? When using a deictic, a speaker indicates how he places an entity (person, object, place, event, etc.) within his mental field of vision. In other words, the speaker expresses the relation between his vantage point and the position that the entity at issue takes in his field of vision.

In the case of tense forms and demonstratives I conceive the speaker's field

of vision to be divided into two or more regions in such a way that the speaker can survey the regions from his vantage point. I call a deictic expression a *region-based deictic* if its use is based on a division of the field of vision into two (sometimes three) regions.⁴ I call a mental field of vision presumed in the use of a deictic a *deictic dimension*. The deictic expression indicates the relation between the speaker's vantage point and the region the entity takes up in his field of vision. In the case of demonstratives it is quite obvious that the entity referred to is uniquely related to the speaker's frame of reference⁵; in the case of tenses more explanation is needed to see that region-based deictics share the property of definiteness.

The first part of this section will concentrate on general properties of region-based deictics. Within this framework, the second part will deal with the two tense categories of Dutch.

2.1. Demonstratives

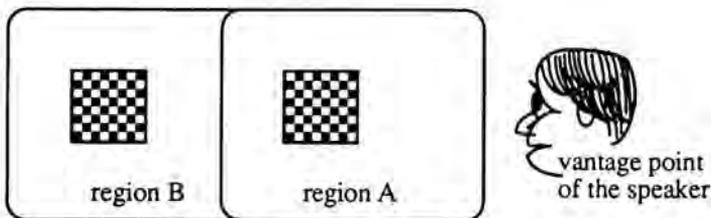
The main tools I assume for characterizing demonstratives conceived as a type of region-based deictics are given in (5).

(5) *Analysis of region-based deictics*

- a By using a region-based deictic the speaker establishes a deictic dimension consisting of a vantage point and a mental field of vision divided into two or more regions.
- b By using a region-based deictic the speaker expresses what kind of relation he envisages between his vantage point and an entity in one of the regions of the dimension at issue.
- c By using a region-based deictic the speaker refers to an entity uniquely related to one of the regions into which he perceives his field of vision to be divided.

Some of these properties can be visualized by figure 1.

Figure 1. *The deictic dimension*



When using a demonstrative, the speaker has a vantage point in mind from which he surveys a mental field of vision. The vantage point is depicted by the speaker's head, notably his eye. The field that the speaker surveys from his vantage point

is displayed in figure 1 as the encompassing oblong; the speaker conceives the field as divided into distinct parts, here indicated as region A and region B. From his vantage point the speaker sees an entity of the kind C in region A and another of the same kind in region B. The speaker envisages the kind C entity that he sees in region A as being uniquely related to region A. Likewise, he envisages the kind C entity that he sees in region B as being uniquely related to region B. From his vantage point the speaker considers himself to have a relation R_A with the entity in region A and a relation R_B with the entity in region B.

If the word *this* can be used to indicate a relation such as relation R_A , while the word *that* can be used to indicate a relation such as relation R_B , and if the word *chessboard* can be used to name an entity of the kind C, then the speaker can refer uniquely to the kind C entity in region A with the noun phrase *this chessboard* and to the kind C entity in region B with the noun phrase *that chessboard*.

This comment on figure 1 sounds rather simple, but several intricacies have been ignored. How does a speaker assume a vantage point? Or, from a different perspective, how do we know what is the speaker's vantage point? What determines the extent of his mental field of vision? What determines the division of the field into two or, perhaps, more regions. What determines their mutual extents? What is the nature of the R_A and R_B relations? Why is it that we may consider the entities to be uniquely related to the frame of reference?

Not all of these questions will be dealt with here (cf. Klein 1978; Ehrich 1982), but I have to answer some of them from my point of view. I will treat two basic aspects of demonstratives that may be of use in clarifying corresponding facets of present-tense and past-tense forms. The first aspect is the semantic division into a proximate and a distal category; below it will be compared with the semantic distinction between the present and preterit. The second aspect concerns the question what constellation of facts determines the use of demonstratives in their definiteness quality; this point will play a central role in discussing the preterit.

2.1.1. Demonstratives and their meaning

What kind of relation between vantage point and entity is expressed by a demonstrative? In other words, what is the most general facet in the meaning of a demonstrative? Let us consider the dialogue fragments (6) and (7). If a doctor is palpating a patient, he may utter the a. sentence; the patient might answer with the b. sentence.

- (6) a Doctor: *Doet het hier zeer?*
'Does it hurt here?'
b Patient: *Ja, daar.*
'Yes, there.'
- (7) a Doctor: *Doet het zeer op deze plek?*
'Is this where it hurts?'
b Patient: *Ja, op die plek.*
'Yes, that is where it hurts.'

The patient's answer shows that the difference between the domain of *hier/deze* 'here/this' and *daar/die* 'there/that' cannot be viewed as "in the vicinity of the speaker" and "not in the vicinity of the speaker" (Lyons 1968: 275), because the spot indicated by the patient with *daar/die* 'there/that' is in the closest possible vicinity.

The doctor's use of the deictic *hier/deze* 'here/this' does not depend on whether the entity involved is in his proximity or at a distance from him. It is not the doctor in his entirety that seems to be crucial. It is as if, when using the deictic *hier/deze* 'here/this', the doctor observes the spot at issue through his palpating hand. The position of his hand must be seen as determining his vantage point. Through his hand the doctor sees himself fully faced with the spot palpated; it is in the centre of his field of vision.

Likewise, when the patient answers the doctor by using *daar/die* 'there/that', it is not his body in its entirety that counts as the relevant vantage point. The patient's eyes or rather the central mental seat of his perceptive faculty may be conceived as his vantage point. By using *daar/die* the patient signals on the one hand that the spot palpated is in his mental field of vision, and on the other that he envisages the spot as outside the centre of his field of vision.⁶

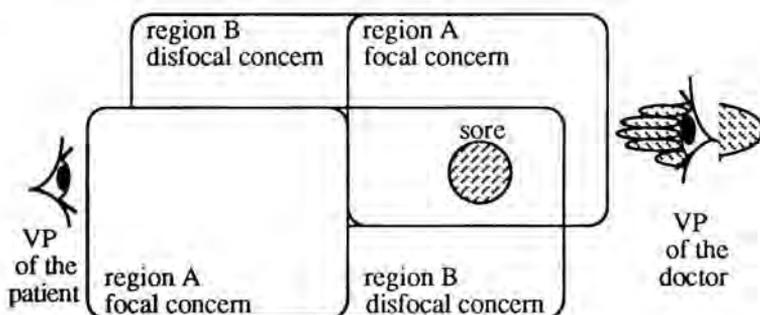
Can we amend Lyons's characterization of demonstratives as "in the vicinity of the speaker" merely by substituting *the speaker* for *the speaker's vantage point*? The point is: what is the linguistic impact of the palpating hand's position? Is it its close vicinity or proximity to the spot palpated conceived as a purely local relation that is crucial, or is the palpating hand's position first and foremost decisive for defining a relation with the spot at issue which is to be conceived as *a relation of concern in a referential respect*? The speaker's hand can form a relation of referential concern by being at the spot in a salient function, i.e. that of palpating the patient. The spot palpated is seen by the doctor as being in the region of his central referential concern at this very stage in the discourse; if he does not succeed in spotting the sore when asking (6)a or (7)a he can put a basically similar question with regard to the next spot. By answering (6)b or (7)b the patient signals that he sees the spot palpated from his vantage point in the region of his non-central referential concern at this very stage in the discourse, although the spot is a part of his body and as such in the closest possible proximity to him. He rightly regards the functional relation the doctor has with the spot as being of greater importance for distinguishing the spot in question than the physical relation he has with it.⁷

By using the deictic *hier/deze* 'here/this' the speaker indicates that he envisages the entity involved as being located in the region that is of central referential concern to him. By using the deictic *daar/die* 'there/that' the speaker indicates that he envisages the entity involved as being located in the region that is indeed of referential concern to him, but not his central referential concern. Even though the entity involved is in the speaker's focus of attention, it is not in the focus of his referential concern. In the case of *hier/deze* as well as of *daar/die* the entity at issue is in the speaker's focus of attention just because it needs to be within his mental field of vision to become an object of his referential concern, irrespective of which type.

When a speaker refers to an entity with the help of a demonstrative he signals that the entity is of referential concern to him given the situation obtaining stage in the discourse. The word concern here has to be understood not in a broad, but in a technical sense. At any stage of the discourse, the speaker may see himself confronted in his mental field of vision with entities which he has to deal with there and then. It is this confrontation that marks an entity as an object of the speaker's referential concern, either central or non-central. Not only the speaker's concern with the entities he refers to but also the type of his concern can alter as dynamically as his field of vision alters from clause to clause or even from entity to entity.

The two different types of referential concern will be termed *focal* and *disfocal*. Thus, in the view illustrated by figure 2 the system of a pair of region-based deictics consists of a deictic indicating focal concern and another indicating disfocal concern in a referential respect. Needless to say, the notions 'focus of referential concern' and 'focus of attention' should be distinguished carefully. For instance, when the patient answers *Ja, daar* 'Yes, there' or *Ja, op die plek* 'Yes, that is where it hurts', the entity referred to is indeed in the speaker's focus of attention, yet it is outside the focus of his referential concern within the deictic dimension at issue.

Figure 2. *Deictic dimension of demonstratives*



Of course, the patient can indicate the sore himself rather precisely with his hand. If indeed he points to the spot, he establishes a vantage point, which forms the main prerequisite for a deictic dimension. In that case he can use the deictic *hier/deze* 'here/this', just as the doctor did in a similar situation. The establishing of a new vantage point is usually called a *shift*. I prefer to use the more neutral description of *assuming a vantage point*; a description, therefore, without any reference to a possible previous or presumed prototypical vantage point (cf. Janssen 1990).

Leaving the possibility aside of deictic systems based on a set of three regions, we must be aware of cases in which a focal-concern deictic is used, while it is rather unclear whether there is an entity in the region of the speaker's disfocal concern. Let us consider, for example, the use of *hier* 'here' and *deze* 'this' in the following newspaper captions.

- (8) *Hand in hand staan hier Alexander Dubcek (l) en Vaclav Havel op het punt de menigte in Praag toe te spreken. (De Gooi- en Eemlander 25 November 1989)*
 lit. 'Standing hand in hand Alexander Dubcek (l) and Vaclav Havel are here about to address the crowd in Prague.'
- (9) *Oostberlijnse grenswachten kijken naar een bulldozer die vrijdagnacht een deel van de Muur sloop. Op deze plek komt nog een grensovergang tussen Oost- en West-Berlijn. (De Volkskrant Saturday, 11 November 1989)*
 lit. East German border guards watch a bulldozer which is pulling down part of the Wall on Friday night. Another border crossing between East and West Berlin will be opened on this site.

In both cases there is no other site involved that offers a contrast. The site referred to by means of *hier* 'here' or *deze plek* 'this site' has not been explicitly introduced at an earlier point. However, the site is cognizable and conceivable as uniquely related to the context of use, partly as a result of the content of the preceding sentence and partly as a result of the noticeable events displayed in the photograph. Due to these circumstances, both closely connected to looking at the photograph, the site can take up a focal position in the editor's referential concern regarding the field of vision in which he perceives the site. That is indeed what the editor reveals when using *hier* and *deze*.

2.1.2. Demonstratives and definiteness

Examples (8) and (9) show that the use of a region-based deictic does not necessarily imply a contrast between entities located in the regions of the deictic dimension involved. The regions must be conceived as being merely different, while only one of them needs to be occupied by a certain entity. What might determine the use of a demonstrative instead of a simple definite article? The use of a definite article can be precluded if it is uncertain whether the entity involved is uniquely related to the frame of reference, i.e. the speaker's mental field of vision. However, a demonstrative can prevent doubts if the entity involved can be perceived as taking up on its own either the focal or disfocal position in the editor's referential concern. Such a constellation constitutes the required unique relation of an entity to the speaker's frame of reference, now consisting in either the focal or disfocal region of his field of vision.

For the use of the definite article Hawkins (1984: 654) regards recognition of the appropriate uniqueness set or frame as both necessary and sufficient when stating that "the hearer must be able to know where the referent exists, and what it is unique to". The fact that the referent is physically co-present and clearly identifiable is not decisive, as Hawkins illustrates for two situations. In the first situation you are having your first driving lesson. When pointing out the various parts of a car, the instructor will, for instance, use the sentence *That's the clutch* and presumably not *That's a clutch*. In the second situation you are in a garage. When pointing to something lying around, you ask an attending mechanic *What's that?* He will answer *Oh, that's a clutch* and not *That's the clutch*. What do these

examples show? That the object at issue is physically co-present and clearly identifiable does not matter. The criterion for the use of the definite article seems to be, as Hawkins (1984: 655) argues, "whether the object in question occurs within a context or frame in which it is a regularly occurring member". Thus Hawkins (1984: 653) rejects even the weakest form of identifiability of the referent as necessary or sufficient for the appropriate use of *the*.

Kitis (1987: 94), reacting to Hawkins, assumes that "the criterion of identifiability must be seen as pertaining, not to each specific datum, but to the potential set of data that might be successful candidates for bearing definite referencing within the broader set of the frame in question." On this point Kitis is right, I think. But I cannot adopt her idea "that some form of identifiability conditions attaching to a set of data must be mutually recognized [by the speaker and the hearer] as enabling (or not) the subset to fall within a specific, broader set or frame". The claim of mutual recognition is too restrictive, as, for instance, Perner and Garnham show in a recent paper (1988). With her condition Kitis thinks that she succeeds in excluding, for instance, *Beware of the pig!* as a notice on a board at the gate of a house functioning like *Beware of the dog!* I would rather suggest we assume that, whenever one comes across the notice *Beware of the pig!* attached to a house gate, there is some cause for concern, and if one sees a pig in the context of use then one should reckon with a nasty animal. Consequently, I take up Hawkins' analysis (1984: 656) that "finding the pragmatic set or frame is all that the hearer can do, everything else he must take on trust from the speaker".⁸

Hawkins' view can directly be connected to the observation above that the appropriate use of a tensed verb requires an encompassing close-fitting scene for the event referred to. To elucidate this definiteness effect, I will draw a parallel with the overtly deictic use of the demonstrative adverbial *daar* 'there' as used in the following cases.

- (10) *Is daar iemand?*
'Is somebody there?'
- (11) *Wie is daar?*
'Who is there?'

The adverbial *daar* 'there' in these sentences can be interpreted as definite. But the places involved are not known thanks to any pointing by the speaker, nor because they were previously a common topic between the speaker and his possible hearer. The speaker has given all the information the possible hearer needs to locate the place involved: it must be a place within the speaker's view in the context of use, and it must be a place of difocal referential concern to the speaker from his vantage point (cf. Janssen 1990). By using a deictic word the speaker expresses the idea that the entity involved is bound to the encompassing scene.

The most important point emerging from this example is that by using the deictic word a speaker relates an entity to the close-fitting scene at issue. Or, more generally, the speaker expresses by means of a deictic word, a definite article or any equivalent of a definite determiner the idea that the entity in question is bound to the encompassing scene involved: the entity plays a salient or prominent role in the context of use, which fits as closely as is required, in the speaker's

opinion, in a cultural, situational or cotextual respect. Here, I refer back to examples (8) and (9): the second sentence shows the phrase *hier* 'here' and *deze plek* 'this site', although the entity at issue has not really been mentioned before. Yet the use of the demonstratives *hier* and *deze* are motivated sufficiently by the photograph and the preceding sentence.

2.2. Tenses

I will take the view that the present and past tense are definite in the sense in which the nominal and adverbial descriptions *deze plek*, *hier* and *daar* in (6)-(11) can be considered definite. In this line of approach, I will try to illustrate that the use or interpretation of the preterit in Dutch requires the background information of a close-fitting scene in which the event referred to is embedded. Assuming that the speaker has an event in mind that is indicated as being of disfocal referential concern to him from his vantage point the hearer can certainly try to relate the event in question to the encompassing situation. What the speaker communicates to his addressee is not an instruction for a search, but a signal of what he experiences or envisages: the use of the present tense comes naturally to the lips of someone who perceives an event as being of focal referential concern with regard to his mental field of vision (cf. Joos 1964: 131); a similar statement applies to the use of the preterit, except that the speaker's referential concern is off-centre. Of course, the hearer will regard a tense form as a clue for a plausible interpretation, but such a form is just a possibility for a search, rather than an instruction to search for a contextually or cotextually locatable event of focal or disfocal referential concern to the speaker.

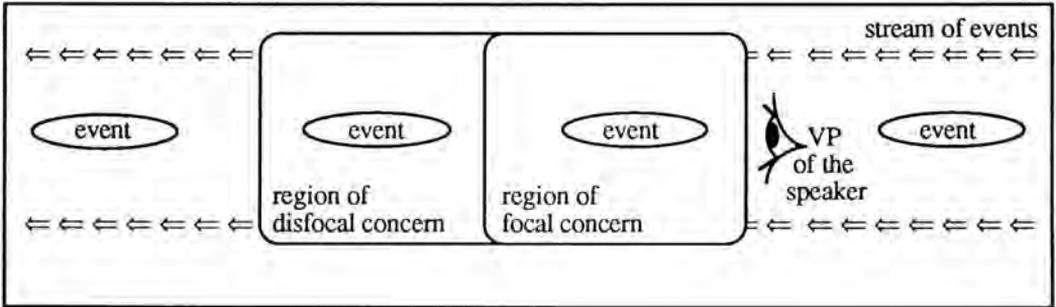
In the following I will explain the semantic difference between present-tense and past-tense forms with the concepts of actual and disactual referential concern. In addition to that I will offer support for the view that tenses and temporal modification are fundamentally different linguistic categories.

2.2.1. Tenses and their meaning

There are strong differences of opinion with regard to the question of how many tenses must be assumed in Dutch and how the meaning of the tenses has to be characterized. In my view the present-tense and past-tense forms must be considered to be the only tense forms and as such the only deictic verb categories; the deictic character of the so-called compound tenses is purely based on the finite auxiliary in its present-tense or past-tense form (cf. e.g. Janssen 1988).

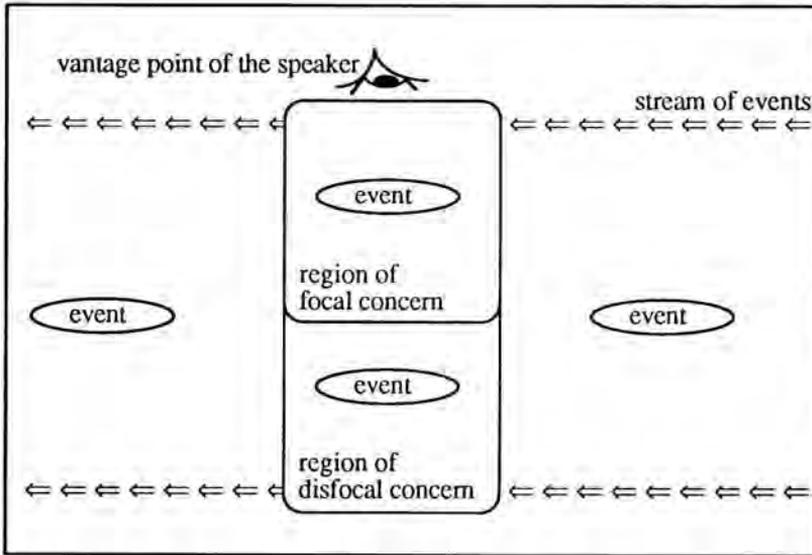
Let us assume that Dutch basically has two types of tense forms: the present-tense form is used to express the idea that the event referred to is of focal referential concern to the speaker and the past-tense form is used to express that the event at issue is of disfocal referential concern to the speaker. The tense dimension can then be depicted as in figure 3 by analogy with the analysis of demonstratives.

Figure 3. *Deictic dimension of tenses (a review of events in a temporal sequence)*



In figure 3 the deictic dimension appears to have a sequential profile, which might suggest that the order of events in time has some relevance. Figure 4, however, shows an alternative way of lining up the deictic dimension.

Fig. 4. *Deictic dimension of tenses (a review of events not in a temporal sequence)*



In figure 4 the event in the region of disfocal concern can be associated with the use of the preterit *as*, for instance, in the case of a potential, a politeness formula (e.g. Overdiep 1937: 316), or when children are directing their actions in a "let's pretend" game. Antinucci and Miller (1976: 188) even claim "that the basic meaning which the imperfect encodes in the child's speech is that of non-actuality, and that the notion of past develops as a specific instance of this broader undifferentiated category."⁹

The two ways of lining up the regions of the deictic dimension with regard to the real or imaginative stream of events share the distinction between a region

that is of focal referential concern to the speaker from his vantage point and another that is of disfocal referential concern to him. These two types of line-up allow us to explain how in both cases the event in the region of disfocal concern is presented by means of the preterit. Thus, the different uses of the preterit are associated with the disfocal region each time. I will term these different types of concern *actual* and *disactual*. I use the word *actual* in the meaning of 'current' or 'ongoing', i.e. in much the same sense as the usual meaning of the Neo-Latin, French, German or Dutch word etymologically related to *actual*. By *disactual concern* I mean that the event at issue is envisaged by the speaker as being of referential concern to him, but not being in the focus of his referential concern.

The immediate consequence of my approach to the tenses in Dutch is that the tense concept is only related to the category of time in a remote sense. I will motivate this view with examples (12)-(15). In these sentences, in the present tense, even a partial simultaneity of the speech time and the time of the event could be missing and even most likely is missing.

- (12) *Frits, je wordt geroepen!*
'Frits, you are being called!'
- (13) *Frits, iemand vraagt naar je.*
lit. Frits, somebody asks for you.
'Frits, somebody is asking for you.'
- (14) *Maar Frits, wat zeg je nou toch?*
lit. But Frits, what do you say now?
'My dear Frits, what's that you are telling me?'
- (15) *En wat zeggen je ouders van je plan?*
lit. And what do your parents say about your plan?
'And what do your parents think of your plan?'

Viewed strictly temporally, the events of these sentences have already taken place when the sentences are spoken: Frits must have been called, somebody must have asked for him, he must have said something baffling and the parents are supposed to have given their opinion.

Conversely, in sentences (16) and (17) the present-tense form is used as a 'future present'.

- (16) *Kom je even?*
lit. Come you for a moment?
'Will you come here for a moment?'
- (17) *Ja, ik kom zo.*
lit. Yes, I come in a moment.
'Yes, I'll be there in a moment.'

Here the events referred to have yet to take place after the moment the sentences have been spoken.

The temporal discrepancies emerging from (12)-(17) cannot be explained coherently in terms of time. Although the situation of the speaker's vantage point and the event involved have a temporal relation from a chronological point of view,

this relation is merely epiphenomenal from the linguistic perspective. What is mainly expressed by means of the present tense is in my view the idea that the event referred to is of focal or, rather, actual referential concern to the speaker. Even if the event does not coincide temporally with the time the sentence is spoken, the event can be presented as of actual referential concern to the speaker from his vantage point. It is the actual referential concern to the speaker that permits the event at issue to be situated, with regard to the time of utterance, within a broad temporal region in positions that vary significantly.

For a clear understanding it should be noticed that the term *concern* is used here in a technical sense. What I mean to characterize with the words *the event at issue is of (dis)focal referential concern to the speaker* is the discourse-organizational relation between the situation of the speaker from his vantage point and the event referred to, while the impact of the very event itself can leave him completely cold.

A parallel may be drawn between the use of the present-tense forms for referring to future events and the use of 'this'-type demonstratives for referring to entities immediately following what the speaker said. With regard to the use of demonstratives for indicating entities ahead, Greenberg (1985: 283-285) has pointed out that the 'this'-type is preferred to the 'that'-type. Admittedly, a difference can be observed between the use of a 'this'-type demonstrative and the present tense when used to refer to an entity ahead; in the case of the demonstrative the entity must follow in the immediate context of use, whereas in the case of the present-tense form the event is allowed to follow at a certain temporal distance from the speech time. But there is no reason to assume a priori that there would be no differences between tenses and demonstratives with regard to perceiving relations of focal and disfocal referential concern. It is a matter of analysis to determine whether any temporal distance between the speaker's vantage point and the future event he is watching for really can affect or disturb the speaker's actual referential concern with the event.

Now for the type of concern in the case of the preterit. This type can be qualified as disactual; witness the contrast between the following examples.

(18) ? *Frits, iemand vraagt naar je. Ik heb maar gezegd dat je niet kon komen.*

lit. Frits, somebody asks for you. I have just said that you could not come.

'Frits, somebody is asking for you. I just said that you could not come.'

(19) *Frits, iemand vroeg naar je. Ik heb maar gezegd dat je niet kon komen.*

lit. Frits, somebody asked for you. I have just said that you could not come.

'Frits, somebody was asking for you. I said that you could not come.'

The present-tense form in the first sentence of (18) causes difficulty in the interpretation of the second sentence. When you are told that someone is waiting for you, you will expect that your coming is still being awaited. And in fact, the first sentence is plausibly interpreted as indicating that the consequence of someone's asking is still in force, while implying that the visitor is waiting for Frits. But the second sentence of (18) suggests that the visitor has left, since he is told that there is no sense in waiting. Thus Frits must be very confused by these more or

less contradictory messages. Mentioning the pretext *Ik heb maar gezegd dat je niet kon komen* makes sense only in a situation in which the consequence of someone's asking for Frits no longer applies, as is indicated by means of the preterit in the first sentence of (19). Consequently, I consider the event mentioned by the past-tense form *vroeg* 'was asking' in the first sentence of (19) to be of disactual referential concern to the speaker.

A similar difference in applicability of the present and past tense can be shown with the following examples; this time the second text is rather incomprehensible.

- (20) *Frits, iemand vraagt naar je. Kom je even?*
 lit. Frits, somebody asks for you. Do you come for a moment?
 'Frits, somebody is asking for you. Will you come for a moment?'
- (21) ? *Frits, iemand vroeg naar je. Kom je even?*
 lit. Frits, somebody asked for you. Do you come for a moment?
 'Frits, somebody was asking for you. Will you come for a moment?'

The request to come for a moment makes sense if someone's wish to see Frits is still valid, that is to say, is of actual referential concern to the speaker, as can be indicated with the present-tense form *vraagt* 'is asking' in (20). In such a situation, (21) is rather puzzling because someone's asking for Frits with the past-tense form *vroeg* is presented as of disactual referential concern to the speaker. If the speaker envisages someone's wish to see Frits as not being of actual referential concern anymore, then the 'actualness' of a request to come for a moment is at least paradoxical.

2.2.2. Tenses and temporal modification

If tense is not a category intrinsically connected with time, then it is necessary to reconsider the relation between tense and temporal adverbials. Generally, temporal adverbials are analysed as temporal modifiers of a verb, but I regard temporal adverbials as temporal specifiers of the event referred to by means of the verb (Janssen 1989a, b; 1990).¹⁰ In my approach the relation between temporal adverbials and tense can be characterized more insightfully, as can be shown with the following newspaper captions, providing instances of seemingly opposite deictics: although the temporal adverbials are to be interpreted as referring to a past interval of time they can go together with present-tense forms.

- (22) *Jim Bakker en zijn vrouw Tammy verlaten woensdag het gerechtsgebouw. De jury was toen nog niet tot een uitspraak gekomen, waardoor Bakker nog welgemoed kan wuiven. (De Volkskrant Friday, 6 October 1989)*
 lit. Jim Bakker and his wife Tammy leave the courthouse on Wednesday. The jury had at that point not yet come to a verdict, so that Bakker can still wave in good spirits.
- (23) *De Oostduitse leider Erich Honecker (links op de linkerfoto) inspecteert donderdag Sovjet-soldaten die in paradepas aan hem voorbij trekken tijdens een plechtigheid in Oost-Berlijn. Daar wordt de veertigste verjaardag van*

de DDR gevierd. Op dezelfde dag arriveren Oostduitse vluchtelingen, zwaaiend met vlaggen en bloemen, uit Praag in het Westduitse Hof (foto rechts). (De Volkskrant Friday, 6 October 1989)

lit. The East German leader Erich Honecker (left on the left photo) reviews Soviet soldiers on Thursday who march past him in parade step during a ceremony in East Berlin, where the fortieth anniversary of the GDR is being celebrated. On the same day East German refugees, waving with flags and flowers, arrive from Prague in the West German town of Hof (photo on the right).

The present-tense forms co-occur with an adverbial indicating a past time in relation to the time of writing: in (22) *verlaten* 'leave' and *woensdag* 'on Wednesday'; in (23) *inspecteert* 'reviews' and *donderdag* 'on Thursday', as well as *op dezelfde dag* 'on the same day' and *arriveren* 'arrive'. If the clue that these texts are captions is not given, sentences containing this type of co-occurrence would hardly be interpretable. Texts (22) and (23) show that deictic temporal adverbials like *woensdag* 'on Wednesday' and *donderdag* 'on Thursday' can do their referential job of specifying the time of the events at issue independent of - or, as traditional analyses would have it, in spite of - the tenses involved. Sentence (9), mentioned before, shows a similar 'discrepancy' between tense and temporal modification.

(9) *Oostberlijnse grenswachten kijken naar een bulldozer die vrijdagnacht een deel van de Muur sloopt. Op deze plek komt nog een grensovergang tussen Oost- en West-Berlijn.* (De Volkskrant Saturday, 11 November 1989)

lit. 'East German border guards watch a bulldozer which is pulling down part of the Wall on Friday night. Another border crossing point between East and West Berlin will be opened on this site.'

The vantage point of *kijken* and *sloopt* originates from the fact that the writer is observing the photograph. From this vantage point the events mentioned are of actual referential concern to the caption editor. The actualness of his concern is not disturbed by the adverbial *vrijdagnacht* 'on Friday night' in the subordinate clause.¹¹

With regard to these newspaper captions, we have to assume two types of vantage point, one for tense and another for temporal adverbial deictics. I assume that the use of the present-tense forms is induced by the fact that the writer is looking at the photograph. It is from this vantage point that the event in the photograph has been presented as being of actual referential concern to him. In using the present tense the speaker presents a situation as being his central concern seen from his discourse-organizational vantage point, even if the factual event is remote in a chronological and spatial respect, as is the case *mutatis mutandis* for the use of *hier* 'here' and *deze (plek)* 'this (site)' in examples (8) and (9).¹²

A similar loose concomitance of past-time specification and present-tense form as to that observed in the newspaper captions can also occur in other types of text. Consider, for instance, the following introductory sentence of a section in Mulisch's novel *De aanslag* 'The assault'¹³; the sentence reports the central fatal event of the book.

- (24) *In die stilte, die de oorlog ten slotte was in Holland, weerklinken op straat plotseling zes scherpe knallen [...]* (p.24)
 lit. In that silence, which the war at last was in Holland, six sharp shots suddenly ring out in the street [...]
 'In the silence that was Holland then, six shots suddenly ring out.' (p.20)

In the main sentence the narrator depicts the shooting by means of a present-tense form; he signals that he envisages the event as being of actual referential concern to him from his vantage point. The vantage point the narrator occupies differs from the one from which in principle he tells the story. From the latter vantage point the narrator presents the situation of the subordinate clause with the preterit as being of disactual referential concern to him. The phrase *de oorlog* 'the war' in the subordinate clause locates the event of the main sentence in time, notably the past seen from the time frame of narration.¹⁴

3. Preterit as a definite description: some data

If the preterit is viewed as definite, it must be clarified how the first sentence in a discourse can be presented in the preterit. For this purpose, I will examine some cases taken from dialogues in Mulisch's novel in which the preterit is established from the beginning. In fact, the very introductory sentence of the novel could be considered because it, too, is in the preterit.

- (25) *Ver, ver weg in de tweede wereldoorlog woonde een zekere Anton Steenwijk met zijn ouders en zijn broer aan de rand van Haarlem.* (p.7)
 'Far, far back during the Second World War, a certain Anton Steenwijk lived with his parents and his brother on the outskirts of Haarlem.' (p.7)

One could suggest that the preterit is induced here by the temporal adverbial phrase *Ver, ver weg in de tweede wereldoorlog* 'Far, far back during the Second World War'. In my view this adverbial is compatible with the preterit but is not decisive in using the preterit. Since the novel is presented as a kind of fairy tale the use of the preterit might be regarded as much too conventionalized to cause any interpretational confusion. The preterit here could even be highlighted as a nice example of being definite due to the cultural determinedness of its context of use (cf. Fleischman 1990), as was the case in *Beware of the pig!*

What's more, the use of the preterit without any linkage to an encompassing situation previously mentioned can be explained by analogy of the use of *daar* in sentences such as (10) and (11) (cf. Lewis 1979). Similarly, a speaker can introduce a brand-new situation and at the same time make for instance a statement or a question by means of the same sentence (cf. Levelt 1989: 99).

I will now discuss some preterit cases in their so-called temporal use, that is, not in a possible use as counterfactual or politeness formula, etcetera. They are taken from dialogue sections in which they are the first preterit or the first one following a present-tense form. The following data will be considered in the order in which they occur in the novel.

- (26) *'Papa? Hoe lang is vijfduizend jaar geleden? [...] was er toen al... ik bedoel [...] dat mensen, net als nu...'*
'Beschaving hadden?' vroeg zijn moeder. (p.19)
'Papa? How long is five thousand years ago? [...] was there already... I mean [...] did people, just like now have...'
'Civilization?' asked his mother. (p.16)

The question *Hoe lang is vijfduizend jaar geleden?* may hardly seem able to establish a situational frame in which the situation of *was* can be seen to be embedded, yet it proves to be sufficient. Additionally, the question turns out to be evocative enough to ground a referential frame for the demonstrative adverbial *toen* 'then, at that time in the past'. It could be maintained here that the preterit is due to the presence of the adverbial *toen*; however, the following case disallows such a claim.

- (27) *'Dat is een vorm die alleen bij Homerus voorkomt. Denk ook maar aan "symbool", dat komt van symballo, "bijeenvbrengen", "ontmoeten". Weet je wat een symbolon was?' (p.22)*
*'This is a form you only find in Homer. Remember the word "symbol," which comes from *symballo*, "to bring together," "to meet." Do you know what a symbolon was?' (p.19)*

In the case of (27), the situation of the subordinate interrogative clause *wat een symbolon was* must be related to the frame of Homer's language or Greek Antiquity evoked by the name Homer and the Greek words.

The close-fitting scene of the following excerpt is given some pages before: *'Ze hebben iemand neergeschoten,' zei hij. 'Er ligt iemand.'* (p.24) 'They [people of the Underground] shot [lit. have shot] someone! he said. 'Someone's lying there.' (p.21) And a few pages later: *'Ze hebben hem voor ons huis neergelegd, die schoften!' riep Peter. (p.28)* 'They [the neighbour(s)] laid [lit. have laid] him down in front of our house, the bastards!' Peter cried. (p.24) Obviously, the location of the body decisive, as it turns out, for the thread of the novel is exposed prominently enough in the foregoing pages to use the preterit in the second sentence of the following dialogue. The preterit *was* must be interpreted as being connected to the situation described with *Er ligt iemand* as the direct consequence of the assault.

- (28) *'Ja... ' zei Steenwijk [...]. 'Maar dat is niet het geval.'*
'Niet het geval! Het was ook niet het geval dat hij hier lag, en dat is nu het geval' (p.30)
'Yes... ' said Steenwijk [...]. 'But that is not the case.'
'Not the case! It wasn't the case that he was lying here, either, but now it is the case!' (p.25)

The question *Wat was dat?* in the quote within the following passage takes up a situation in the immediately preceding sentence caused by the report of the gunshot, as told in the narrator's description. This situation is not mentioned in

the dialogue, but the text of the dialogue makes clear that there was the sound of a gunshot salient to the relevant speaker and hearer. Thus, the preterit of the question *Wat was dat?* 'What was that?' can be seen as a deictic reference to the event at issue within the context of use.

- (29) *Eén van hen, in een winterjas en met een pet op, loste een schot en ging achter Peter aan. [...]*
'Wat was dat? Schieten ze op Peter? Waar is hij?' (p.31)
One of them, wearing a cap and an overcoat, took a shot at Peter and chased after him. [...]
'What was that? Are they shooting at Peter? Where is he?' (p.26)

With regard to passage (30), the situation Anton indicates with the preterit *kwamen* responds to his mother's question *Heb je dat echt gezien?* Actually, it takes up the situation described with *Hij heeft het pistool van Ploeg gepakt* 'He took [lit. has taken] Ploeg's pistol' The passage *Net toen die mannen er aan kwamen. (Zo... terwijl hij wegliep)* shows that Anton truly saw Peter taking the pistol. The subordinate *toen*-clause specifies the time of the situation described with *Hij heeft het pistool van Ploeg gepakt* 'He took [lit. has taken] Ploeg's pistol'. Although the coming there of the men was not under discussion in the dialogue before, Anton presumes that his mother is able to place this scene precisely. He indicates this by using the preterit *kwamen* 'came'. Both his use of *toen* (here to be read as 'at that time in the past at which') and his use of the demonstrative *die* 'those' in the noun phrase *die mannen* 'those men' are indications additional to but not decisive for the fact that the event is salient within the context of use. In the dialogue of Anton and his mother the men are only once referred to when the question *Schieten ze op Peter?* 'Are they shooting at Peter?' is asked by Anton's mother after a shot from one of the men who just arrived to pursue Peter.

- (30) *'Hij heeft het pistool van Ploeg gepakt.'* [...]
'Heb je dat echt gezien?'
'Net toen die mannen er aan kwamen. Zo... terwijl hij wegliep.' (p.33)
'He took Ploeg's pistol.' [...]
'Did you really see that?'
'Just as those men came... Like this... as he ran away... ' (p.28)

The final case I will discuss is part of a dialogue between secondary figures while there is nothing in the foregoing passage to which the connection required can be assigned by the reader directly.

- (31) *'Waar is nog plaats?' vroeg de brigadier. [...]*
'Daar dan maar,' zei hij [...]
'Dat moest Einzelhaft wezen van die SD'er.' (p.44)
'Where do we have room?' asked the sergeant.
'How about there?' he said [...]
'But that should be solitary. The SD-man said so.' (p.37)

The use of the preterit *moest* 'should' is motivated by the fact that the speaker and hearer of the dialogue are relevant for the use of the preterit. As appears from the cotextual phrase *van die SD'er* (lit. on the order of that SD-man), the hearer in the dialogue can locate in which scene the situation referred to occurs; the use of the demonstrative *die* 'that' indicates here that the hearer is presumed to be acquainted with the SD-man's presence (before) and his factual orders.

4. Conclusions

I have made an attempt to show that in Dutch the use or interpretation of the preterit is comparable to that of definite descriptions, notably descriptions with 'that'-type demonstratives. From this point of view I have explained the difference between the use or interpretation of the preterit and the use or interpretation of the *non-finite* main verb of the present perfect (I have left aside the claim that the present-tense auxiliary is comparable to definite descriptions with 'this'-type demonstratives).

In Dutch, any temporal adverbial which can specify the time of the event mentioned by means of the preterit can equally well specify the time of the event mentioned by means of the *non-finite* main verb of the present perfect. Consequently, the idea that an adverbial specifying a past interval of time determines the use of the preterit does not hold. Neither is this idea corroborated by the data, since the co-occurrence of a temporal adverbial and the preterit can be explained as merely incidental from the linguistic perspective. What the data really show is that the use and the interpretation of the preterit in Dutch require the background of a close-fitting scene in which the event referred to is embedded.

Notes

- * I am grateful to Jadranka Gvozdanović, Östen Dahl and Mike Hannay for their comments on an earlier draft. For the references to children's acquisition of the preterit I am obliged to Melissa Bowerman.
1. Ruijgh (1990, note 10) points out that the augment of the preterit forms in Greek has probably the value of a temporal adverb meaning 'at that time in the past'.
 2. Basically similar demurs are raised by Declerck (1990).
 3. The present tense auxiliary of the 'present perfect' has its own semantic function (cf. Janssen 1988; 1989c; 1990); the relevance of its role can be elucidated by the following examples (cf. Quirk et al. 1985: 192).

- (1) *Waar legde je mijn portemonnaie neer?*
'Where did you put my purse?'
- (2) *Waar heb je mijn portemonnaie neergelegd?*
'Where have you put my purse?'

The first sentence evokes an action related to a broader scene having the speaker's attention; this scene could be a reconstruction of a theft. But in the second sentence, the act of putting the purse away is not presented as related to an encompassing scene. It is the present-tense form of the auxiliary *heb* 'have' that relates the situation caused by the addressee's having put the purse somewhere to the encompassing frame of reference as of current referential concern to the speaker. This is in accordance with Langacker's view (1978: 865) that "*have* locates within the sphere of relevance a perfect expression, marked with the perfect participle". The current referential concern expressed by means of the present-tense form of the auxiliary explains the difference between sentences like the following.

- (3) a *Tom heeft honderd gulden van me geleend.*
 'Tom has borrowed a hundred guilders from me.'
 b *Tom leende honderd gulden van me.*
 'Tom borrowed a hundred guilders from me.'

The a. sentence, as Tichý (1982: 359-60) comments on the English version, will normally be meant and understood as implying that Tom still owes the money to me; so it would be clearly quite unfair of me to go around saying this after having received my money back. No implication of any debt still outstanding is made by the use of the b. sentence; here the main interest is to bring the action to the fore, while the past-tense form relates it to the encompassing scene at issue.

4. We can distinguish several other types of deictics, such as deictics based on metric systems, e.g. *two (three/four/etc.) hours (days/weeks/etc.) ago*.
5. For a speaker-centred approach to definites see also e.g. Kadmon (1990: 279).
6. It is difficult to define what determines and delimits a field of vision, its centre and periphery. For instance, the role of the interlocutor can be crucial. Imagine that the doctor is inspecting the immediate environment of a patient's eye by touching it. Doing so he can put question (6)a. The patient can answer with (6)b if the sore is touched. Obviously, the patient accepts that the doctor's touch constitutes such a dominant relation with the entity at issue that it prevents him from answering *Ja, hier*. 'Yes, here', although the touch is literally close to the centre of his field of vision. With regard to the choice between demonstratives such as *hier/daar* 'here/there', palpating a spot or, more generally, pointing to an entity, appears to be dominant over proximity, even in its closest form, namely in cases where the entity at issue is part of the speaker's body.
7. Kirsner and van Heuven (1988: 238) rightly regard the proximal and distal interpretations of the Dutch demonstratives as secondary effects of a more abstract (nonpolysemous) meaning. Such a meaning must cover other uses or interpretations as well, e.g. *hier* in: *Fred arriveerde in Montreal. Hier hadden zijn ouders al lang naar hem uitgezien*. 'Fred arrived in Montreal. His parents had long been awaiting him here.' By means of *Hier* the speaker presents the awaiting from the point of view of being in Montreal, while actually he can be outside of Montreal when using the adverb. Kirsner and

- van Heuven (1988: 238) would put this in instructional terms. However, I assume a 'presentative view' as basic for utterances and for deictics as well.
8. See also Kadmon (1990: 279): "hearers too interpret definites as unique, either 'directly' or by relying on the speaker".
 9. In many languages games of pretend are presented by means of the preterit. See, e.g., for Italian Antinucci and Miller (1976: 185-87), for English Lodge (1979), who mentions that the time reference can even be future, for French Waugh (1975: 405), for Dutch Kaper (1980) and for Swedish Strömquist (1984: 58). Additionally, the preterit can be used to express tender affection toward children and pet animals. See for Dutch Overdiep (1937: 316), for French Waugh (1975: 464-65); with regard to English Melissa Bowerman was kind enough to proffer the following examples: *Was it a sweet little pussycat? Was it a little wuzzums? Yeah, it was a sweeeeet little wuzzy... and Did the little wuzzypie want his dinner?* They are supposed to be produced with a babytalk intonation. There is always a third person form of address used, as Waugh (1975: 465) observes. Melissa Bowerman notes (pers.comm.) that this type of address is a common feature of babytalk in many languages.
 10. If tense and temporal adverbials express distinct deictic dimensions, then it is explainable why temporal connectives functioning as temporal adverbials, can have such an effect on the interpretation of their clauses that both present and preterit seem to present events as future or posterior from a given orientation time (Janssen 1989b; 1990). See, for example, sentences (1) and (2), understood as descriptions of a non-iterative, singular case.
 - (1) *Je mag wel even meespelen. Maar zodra de vaste man komt, moet je je plaats afstaan.*
'You may join in the game for a while. But as soon as the regular man comes, you will have to leave.'
 - (2) *Je mocht wel even meespelen. Maar zodra de vaste man kwam, moest je je plaats afstaan.*
'You were allowed to join in the game for a while. But as soon as the regular man came, you had to leave.'

In the subordinate clause of (1) and (2) the connective *zodra* 'as soon as' induces a future interpretation: the assumed arrival of the regular man is seen as posterior to the time of the event of your receiving permission to join in. The symmetry between the present and the past case is important. If a 'future present' is to be seen as a separate tense, then we should postulate a 'future past' too. But such a proliferation of 'tenses' would explain nothing. Moreover, this futurization of both the present and past tense cannot be explained away as a metaphorical use, as is done in the case of counterfactuals (Weinrich 1964), because here we have a purely referential shift rather than a transfer from one conceptual domain of use to another. By means of *zodra* 'as soon as' the temporal positioning of the event is shown to be posterior to receiving permission to join in. In (1) the assumed arrival of the regular man is of actual referential concern to the speaker; in (2) it is of disactual referential concern to him. The actual or disactual referential

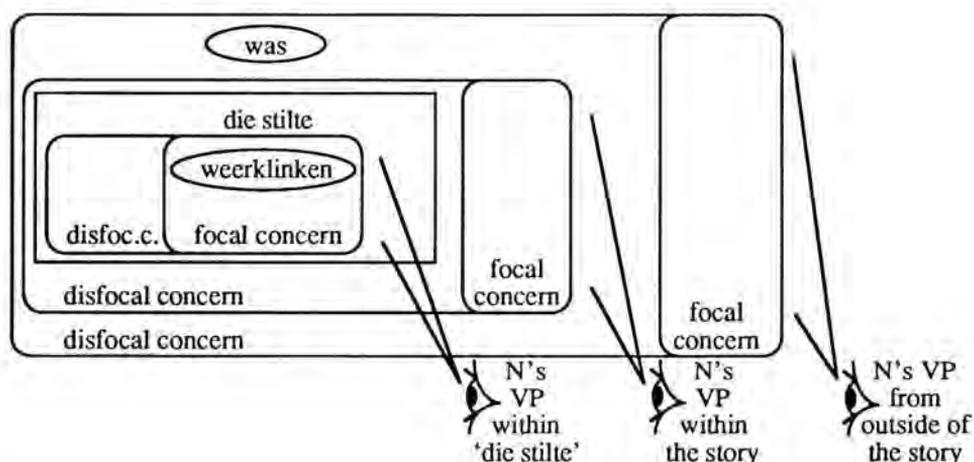
concern allows, then, the event at issue to be situated with regard to the speech time within a broad temporal region in rather different positions, as discussed before with respect to sentences (12)-(17).

11. The vantage point of the present tense in the second sentence of (9) is most probably not that of observing the photograph. The information on the future event which the editor has provided in the second sentence cannot be inferred from the picture: it is not shown on it. Clearly, the editor makes this statement on the basis of independent evidence.
12. Tobin (1984: 15 ff.) discusses frequent co-occurrences of present-tense forms of the so-called historical present and 'this'-type demonstratives. However, see also note 7, note 14 and example (28).
13. Harry Mulisch, *De aanslag*, Amsterdam [1982] ¹1983; the translation is taken from *The assault*, transl. by Claire Nicolas White, Penguin Books ²1987. The central episode of (24) is repeated in the book (on p.149; (p.121)) in different words, but again in the present tense.
14. It may be noticed that the phrase *die stilte* is not presented as of actual referential concern. It might seem strange that in one and the same sentence a phrase such as *die stilte* 'that silence' is of difocal referential concern to the narrator, while the tense form *weerklinken* 'ring out' presents the event at issue basically as of focal referential concern to him. But such a combination is similar to the co-occurrence of a present-tense form and a temporal adverbial referring to a time in the past in texts put in the so-called historical present (cp. e.g. Wolfson 1982).

The official book translation is missing a deictic subtlety of important narrative relevance. In the part preceding text (24) a picture of stillness was sketched. Thus, the silence referred to is salient because of what has been told before. At the opening of the new section this still atmosphere may be regarded as being in the narrator's mind, or rather in his self-created mental field of vision, albeit here that it is of difocal referential concern to him considering his choice of the demonstrative *die*.

Now we can see what the flaw in the official book translation is, and how serious it is. In this translation the silence concerns Holland in its entirety; it is presented in a field of vision that is or resembles the narrator's historical field of vision. But in the original the referent of *die stilte* is in the narrator's fictional field of vision created in the narrative. In the Dutch version it is only the subordinate clause that presents a situation in a field of vision which is or resembles the narrator's historical field of vision. The effect of the subordinate clause is that the sketched stillness of the life of one family in the town of Haarlem is generalized into that of the whole western part of the Netherlands. It is due to the use of the nonrestrictive clause in the Dutch original that the narrator's vantage point of the tense form *was* may differ from his vantage point of the demonstrative *die*. If a restrictive clause had been used, as in the translation I object to, such a difference would not have been allowed.

The following figure shows how the rather complex deictic relations of sentence (24) can be visualized within a region-based deictic view (N = narrator; VP = vantage point).



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MULTIPLE MEANINGS IN CONTEXT: THE FRENCH PRESENT TENSE

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Abstract

Despite the recent focus within pragmatics and semantics on the many senses associated with morphological (grammatical) categories, and debate about whether polysemy or abstract meanings are the way to handle such cases (see Sweetser 1986, Ruhl 1989), it is still true that "most linguists have not emphasized the positive communicative value of multiple meanings" (Lyons 1977.II: 409), especially those which may seem at first glance to be contradictory; nor have they examined systematically the ways in which such meanings are related both to each other and to their context. In this paper, we will explore the simultaneous relevance of two opposite grammatical meanings in a single context. Our aim is to show that, far from being a question of promiscuous, unrestricted polysemy, or problematic ambiguity, such multisemanticity has positive pragmatic value.

Generally, there are two interrelated factors which control particular contextual meanings of grammatical categories. On the one hand, the semantic relation between the given linguistic category and other categories of its type defines both its general meaning and its possible types of contextual meanings; thus, in general, polysemy is well-defined and results from the system as a whole. On the other hand, there is a symbiotic relationship between meanings and their contexts, and this determines which of the contextual meanings is relevant; thus, there is often no contextual polysemy. However, a given context may allow for, and may even promote, multiple meanings: multisemanticity, then, is a case of contextually conditioned polysemy.

We will examine cases of such contextual polysemy for the historical present (HP) of French in journalistic discourse.

1. The French Tense System

As a general rule, one can say that the French tense system is dominated by considerations of deictic placement in time (tense, strictly speaking), the major axis being the unmarked present (Pr) tense vis-à-vis the marked three major past tenses¹: imperfect (Imp), compound past (CP), and simple past (SP) (the latter only relevant for the written language). Moreover, as is well known, the Pr may itself have a special, "inverted" usage (see Monville-Burston - Waugh 1990; or "not proper" usage, see Jakobson 1939): the HP, which takes on a reference to past time from use in a past time context.

The three major past tenses are differentiated in a number of ways, one of them being aspect. Imp is unmarkedly imperfective, SP and CP are markedly perfective. Thus, for example, SP and CP refer to actions which are bounded, complete,

unique, once-occurring, non-durative, while Imp refers to actions which are not, i.e., which are on-going at some moment in the past, which are habitual, repeated, durative (see Comrie 1976). Moreover, CP sometimes refers to an action which was complete at some moment in the past but which is still relevant at the present moment; this current relevance differentiates it from SP and Imp, which typically refer to verbal actions without any necessary current relevance.

As for Pr, the question of current relevance is usually moot since this tense generally does not refer to the past; indeed, for most uses of Pr there is some portion of the verbal situation itself which overlaps with the present moment (Comrie 1985: 40). In addition, Pr is inherently neither perfective nor imperfective: in principle, Pr could be either, depending on the context. Now, as it happens, typical (prototypical, basic) uses can be established for each major contextual type of Pr; and indeed, three of the four major contextualizations of Pr² are imperfective:

a. the present-present (PP, [- past]) which refers to the present moment:

- (1) *Je le vois; il sort du garage*
'I can see him; he is coming out of the garage'

b. the omnitemporal present (OP, [\pm past]) when it is used for temporal situations which have a continuity from the past to the present and into the future:

- (2) *Jean fume*
'Jean smokes [is a smoker]'

c. the atemporal present (AP, [\emptyset past]) when it is used for timeless situations, gnomic truths and the like:

- (3) *L'eau bout à 100°*
'Water boils at 100°'

The fourth major contextualization, HP, is quite different: it typically is perfective (in which case its past tense counterpart would be either SP or CP), but in other contexts it is imperfective (in which case it replaces an Imp). These two possibilities can be exemplified by the following passage:

- (4) *Ce dimanche 14 janvier, avant de rejoindre les responsables socialistes qui s'apprêten³ [s'apprêtaient (- perf)] à entamer la deuxième journée de leur comité directeur, Roland Dumas prend [prit/a pris (+ perf)] son petit déjeuner avec François Mitterrand. (Le Nouvel Observateur, 25-31/1/90)*
'On this Sunday, January 14, before joining the socialist officials who are [were] getting ready to start on the second day of their board of management meeting, Roland Dumas has [had] his breakfast with François Mitterrand.'

The recognition of whether the given HP is either perfective or imperfective is facilitated not only by the grammaticality or non-grammaticality of its past tense

equivalents, but also by textual, lexical, and syntactic clues. Furthermore, situation types (in the sense of Vendler 1967) in particular, confirm perfectivity, or the lack of it. Consider (5), for example:

- (5) *Lundi dernier, à Cantin, dans le Nord [...], vers 20 heures 15, une voiture rate [rata/a raté (+perf)] un virage et percute [percuta/a percuté (+perf)] une cabine téléphonique. Dans la voiture, deux jeunes gens et une jeune fille. Ils reviennent [revenaient (- perf)] d'un repas de fiançailles. (Le Journal du Dimanche, 3/23/86)*

'Last Monday, in Cantin, North [...] around 8:15 p.m. a car misses [missed] a turn and hits [hit] a telephone booth. In that car, two young men and a girl. They are coming back [were coming back] from an engagement party.'

The achievement phrases (*rate le virage, percute une cabine*) can be replaced far more naturally by a punctual (perfective) past form than can the activity verb *reviennent*.

Instances can be found, however, where the aspectual quality of an HP form is not as readily definable. We have then a [+ perf] interpretation of HP, and as a consequence the analyst may hesitate between a substitution by CP/SP or Imp, as in example (6).

- (6) *A la Foire internationale, Tapie, invité d'honneur, est ovationné [fut ovationné/a été ovationné (+ perf)] par le public. On ne voit [vit/a vu/voyait (+ perf)] que lui. On en oublie [oublia/a oublié/oubliait (+ perf)] Jean-Claude Gaudin et Robert Vigouroux qui l'accompagnent [accompagnaient (- perf)]. (Le Nouvel Observateur, 17-23/10/90)*

'At the International Fair, Tapie, guest of honor, is given [was given] an ovation. People see [saw, (+ perf)] only him. They forget [forgot (+ perf)] even Jean-Claude Gaudin et Robert Vigouroux who are [were] with him.'

We will examine in this paper two types of multiseptic HP's where there is a combination of perfectivity and imperfectivity: those where current relevance may or may not be at issue; and those involving verbs of speaking, where the issue is the atemporality (and thus imperfectivity) of the (perfective) act of saying.⁴

2. HP, CP, and current relevance

In cases where an action in HP is 'open' (i.e., imperfective), it can be completed at any time following its inception, and of necessity may run into extended or punctual 'now' and impinge upon its domain. Consider examples (7) and (8):

- (7) *Flash back... C'est en 1976 qu'apparaît [apparut, est apparue (+perf)] cette petite bombe de 105 ch... La Golf va [allait (- perf)] vite, accélère [accélérait (- perf)] comme un dragster, ... colle [collait (- perf)] à la route comme aucune traction avant ne l'avait fait avant elle. Foudroyant succès. (Le Journal du Dimanche, 3/23/86)*

'Flash back... In 1976 this little 105 horsepower bomb is released [was released]...The Golf is [was] fast, accelerates [accelerated] like a dragster, sticks [stuck] to the road as no front-wheel drive car has/had ever done before. A smashing success.'

- (8) *AOût 1990 Afrique du Sud: Le 13, éclatent [éclatèrent/ont éclaté (+ perf)] de violents affrontements entre partisans de l'ANC et du mouvement zoulou Inkatha dans les cités noires autour de Johannesburg. Provoqués par l'Inkatha, qui entendent [entendait (- perf)] être associé aux futures négociations, ces combats font [firent/ont fait (+ perf)] plus de cinq cents morts. (Le Monde, 13-19/9/90)*

'August 1990 South Africa: On the 13th, violent clashes break out [broke out] between supporters of the ANC and the Zulu movement in the black townships around Johannesburg. Prompted by the Inkatha, which intends [intended] to be a partner in the future negotiations, these fights result [have resulted] in more than five hundred casualties.'

The car described by the journalist in (7) is still on the market and its qualities (*va vite, accélère, colle*) have to be considered as true at the moment of utterance. Similarly in (8), we can suppose that the Inkatha is as keen to participate in the discussions on the 19th of September (date of writing/publication) as it was a week earlier given the ongoing conflicts in the area.

Passages (7) and (8) illustrate openness to the PP period with an imperfective HP. But even with a perfective HP, although the action is without doubt completed at some moment in the past, it is not uncommon that its results or consequences are viewed as encroaching upon the 'now' period. In other words, the aspectual non-specificity characteristic of Pr is always ready to reappear and color the perfective usage, if the context is not compelling enough or if some sentential element invites, at the same time, the opposite (imperfective) reading. This second possible interpretation will be indicated as follows: ((- perf)). The potentiality of an imperfective interpretation blending with a perfective one can be observed in examples (9), (10), (11):

- (9) *Chine-Indonésie: Les relations diplomatiques, gelées depuis 1967, sont rétablies [ont été rétablies (+ perf) ((- perf))] (Le Monde, 13-19/9/90)*

'China-Indonesia: Diplomatic relations, frozen since 1967, are restored [have been restored].'

- (10) *Les mesures fiscales pour 1991 sont arrêtées [ont été arrêtées (+ perf) ((- perf))] (Le Monde, 6-12/9/90) 'Budgetary measures for 1991 are decided upon [have been decided upon].'*

- (11) *Dans un fracas épouvantable, la DS écrase [écrasa/a écrasé (+ perf)] la cabine dont il ne reste [resta/est resté (+ perf) ((- perf))] quelques secondes après, que des débris. (Le Journal du Dimanche, 3/23/86)*

'In a horrible crash, the Citroen flattens [flattened] the phone booth of which only broken fragments are left [were left], a few seconds later.'

The verbs *rétablir* (9) and *arrêter* (10) denote a change. They are typical 'achievement situations'. In the context of politics, they even have performative force.

However their use in the passive voice weakens this highly perfective quality, and the auxiliary *être* (a stative verb) in Pr^s allows the basic, imperfective interpretation to intrude. The reader is thus offered a dual perspective on the situation. In (9), for example, the signing of an official document has marked the beginning of a new relationship (punctual action [+ perf]), which has since then prevailed and will continue to do so (resulting state [- perf]). It is to be noted that, occasionally, the lexicon is able to break up this cumulation of aspects: in (12), given the existence of the opposition *est libéré* 'is freed' vs. *est libre* 'is free' in the linguistic code, the journalist has selected the first member in order to focus on perfectivity.

(12) *L'un des deux otages suisses, délégués de la Croix-Rouge enlevés en octobre 1989, est libéré* [a été libéré (+ perf)]. (*Le Monde*, 13-19/9/90)

'One of the two Swiss hostages, Red Cross delegates kidnapped in October 1989, is freed [has been freed]'

Finally, in (11), the double aspectual reading is due not to the passive syntactic structure, but to the inherent lexical imperfectivity of the verb *rester*, which clashes with the punctual adverbial *quelques secondes après*.

The HP's just discussed, oriented as they are towards PP by the state resulting from the action, recall certain uses of CP. In Waugh (1987), two major contextual variants of CP are distinguished: CP-1, a perfect, and CP-2, a preterit. Between these two polar interpretations of CP, there exists a continuum of transitional uses, which are types of CP-2's. CP-1 focusses "on the present aftermath of an event which was complete by that moment and took place some time anterior to it" (p.4). It has 'current relevance', i.e., the statements, situations, etc. resulting from the past action remain valid at the time of utterance. CP-2 describes "an event which is complete and past" (p.6). Thus, when HP is embedded in a context where it receives an unambiguous and pure perfective interpretation, it resembles CP-2 aspectually and temporally. But if contextual elements favor an open perspective towards the *hic et nunc* - which is frequent in newspapers, given the recency of many of the reported actions and the attention granted to their consequences - the perfective value is more diluted, less focused upon, and nuances of current relevance may surface. Thus, from an aspectual point of view, these perfective HP's with current relevance come close to CP-1 (or a transitional use of CP-2 which is close to CP-1). Perfective HP's therefore have affinities with CP, which they don't share with the more semantically restricted SP. This likeness, furthermore, is reinforced by the fact that they are morphologically akin: the auxiliary of CP is in Pr. These two factors may explain certain effects of tense switching that can be observed in newspapers.

Consider the following passages containing respectively a SP -> perfective HP transition (13) and a CP -> perfective HP transition (14):

(13) *Par deux fois, M. Fabius a sommé [CP] le ministre de la défense de lui dire la vérité sur les responsabilités dans l'affaire Greenpeace. Une fois ce fut en présence de M. Joxe... Un soir, le premier ministre convoqua [SP] encore Charles Hernu, en la seule présence de M. Badinter, conscience du sérail*

mitterrandiste. La décision s'impose [s'imposa/s'imposait ('imparfait pittoresque')(+ perf)]... (*Le Monde*, 19/01/90)

'Twice Mr. Fabius enjoined the Defence Minister to tell him who was to answer for involvement in the Greenpeace affair. The first time it was in the presence of Mr. Joxe... One night, the Prime Minister called in Charles Hernu again in the sole presence of Mr. Badinter, the conscience of the Mitterrand coterie. There is [was] no alternative but to resign...'

- (14) *Des sourires et de la fermeté, les Français en ont ramassé [CP] à la pelle. Fermeté dans le langage et sur le fond du discours. Lorsqu'il appelle* [appela, a appelé (+ perf)] *les Français à "faire bloc" autour des acquis des dernières années... M. Mitterrand feint* [feignit, a feint (+ perf)] *de s'adresser à tous, mais parle* [parla, a parlé (+ perf)] *essentiellement à la gauche.* (*Le Monde*, 9/22/89)

'The French people have had bucketfuls of smiles and firmness. Firmness in language, and in the content of the talk. When he calls on [called on] the French to "unite" around the achievements of the last years... Mr. Mitterrand pretends [pretended] he's addressing everybody, but speaks [spoke] essentially to the left.'

In the case of SP -> HP [+ perf] transitions (13), the perfectivity of HP usually comes out strongly, supported by the perfectivity of the preceding SP; this aspectual continuity, however, is disrupted by the morphological break (SP tense form -> Pr tense form) which contributes to creating the often mentioned impression of vividness. In the CP -> HP [+ perf] transitions (14), on the other hand, the HP perfectivity loses some of its sharpness. This is due to the potential imperfectivity that any Pr verb form contains, associated with the actual (or potential) current relevance that the preceding CP form comprises. We have therefore a continuity of perfectivity watered-down by latent imperfectivity. This semantic homogeneity over the tense switch is paralleled by morphological uniformity (a Pr form is maintained on the auxiliary and the lexical verb). Consequently, CP -> HP [+ perf] tense switching does not have the abruptness of SP -> HP [+ perf].⁶

To conclude, then, CP -> HP [+ perf] transitions do not emphasize perfectivity⁷, nor do they exhibit formal discontinuity (and its attendant surprise effect). On the contrary, morphology can be used to articulate effortlessly the passage from CP to HP. Consider text (15):

- (15) *La fusillade du 16 juin a mis [CP] le feu aux poudres. En quelques heures Soweto s'est transformée [CP] en un champ de bataille. Les bureaux de l'administration, des véhicules privés, les débits de boisson,... sont incendiés* [ont été incendiés (+ perf)]. *Les établissements scolaires sont fermés* [ont été fermés (+ perf)] *dès le lendemain. Au Parlement, le premier ministre, M. John Vorster, annonce* [a annoncé (+ perf)] *que le gouvernement ne se laissera pas intimider.* (*Le Monde* 6/16/86).

'The shooting on June 16 caused [CP] the situation to explode. In a few hours, Soweto was changed [CP] into a battlefield. Administrative offices, private vehicles, pubs... are set on fire [were set on fire]. Schools are closed down [were closed down] from the (very) next day. In Parliament, the Prime Minister, Mr. John

Vorster, announces [announced] that the government will not let itself be intimidated.'

Note that sont incendiés is the locus of the tense shift. Far from being highlighted (as often happens with tense switching), it seems buried in the center of the group of periphrastic verb forms (s'est transformée, sont incendiés, sont fermés). It mimics the pronominal CP s'est transformée with its passive morphology. On the other hand, s'est transformée simulates the neutrality of HP with respect to perfectivity; it presents the situation described under two different angles: a perfective perspective ([+ perf] marking of CP; telic, achievement lexical meaning of 'to transform'), and an open perspective on the results of that transformation. It is only when the one-word (active) HP annonce follows the periphrastic (passive) HP sont fermés that the CP -> HP tense switch appears to have been fully performed. Thus, the CP -> HP transition is developed so smoothly that it passes almost unnoticed.

3. Declarative verbs in HP

There are many uses of verbs of speaking (and writing) in journalistic discourse, and there is a marked tendency for these verbs to be put in Pr. They are found both in non-narrative and narrative passages, in the latter case, with or without tense switching on the declarative verb. Speech is reported in direct or indirect (occasionally free indirect) style, but in general at least some element of what was actually said (or written) is given in direct quotes:

- (16) [narrative, no tense switching, direct]
Soudain, sur la pelouse, apparaît [apparut/est apparu (+ perf)] en reproduction géante l'image de Tapie. Autour de lui les notables locaux sont [étaient (- perf)] rouges de colère. A leur tête, Robert Vigouroux, le maire de Marseille. Dans son entourage, on bougonne [bougonnait (- perf)]: "Tapie se prend carrément pour le Messie." Mais surtout, on s'inquiète [s'inquiétait (- perf)]: "Que cherche-t-il? La mairie?" (Le Nouvel Observateur, 17-23/10/86)
'Suddenly, on the field, a gigantic reproduction of Tapie's picture appears [appeared]. Around him, local leaders are red with anger. First of all, Robert Vigouroux, the mayor of Marseille. In his entourage, people grumble [grumbled]: "Tapie really thinks he is the Messiah." But, above all, they worry [worried]: "What is he after? The city-hall?"
- (17) [non-narrative, direct]
...le chef de l'Etat n'a pas voulu [CP] tirer, sur le champ, la leçon de ce scrutin et s'est donné [CP] jusqu'à la fin de l'année pour corriger ce qui doit l'être. "C'est une erreur psychologique grave que de faire ainsi traîner les choses en longueur", souligne [a souligné (+ perf)] un observateur local. (Le Monde, 28/5/89)
'...the Head of State refused to draw a lesson immediately from this poll and gave himself until the end of the year to correct what needs to be corrected. "It is a serious psychological error to drag things on in this fashion", a local observer remarks [remarked] emphatically.'

(18) [narrative, with tense switching, indirect]

Les rafles ont été opérées [CP] dans tous les milieux... Les exemplaires de deux journaux, le Weekly Mail... et le Sowetan... ont été saisis [CP]. D'autre part, le groupe des neufs "éminentes personnalités" du Commonwealth... affirme [a affirmé (+ perf)], dans un rapport rendu public le 12 juin, que Prétoria porte la responsabilité de l'échec de sa tentative de médiation... (Le Monde, 6/18/86)

'Raids were carried out in all areas/social groups... Copies of two newspapers, the *Weekly Mail*... and the *Sowetan*... were seized. On the other hand, the group of nine "eminent persons" of the Commonwealth... states [stated], in a report made public on June 12th, that Pretoria is responsible for the failure in its attempt at mediation...'

Narratologists have observed the same propensity for *verba dicendi*, across languages, to be in HP in oral story telling, as well as in some written story telling genres. Various hypotheses for the phenomenon have been put forth⁸: signal of a transition between the narrative and assertive modes (the verb of saying taking by osmosis Pr, characteristic of conversation); highlighting the immediacy and vividness of the spoken words by introducing them with Pr; device to evaluate the story or to 'track' its participants; and so forth.

In newspapers, reported speech is not necessarily inserted in narrative texts. It can be included in the summary, in the lead; it can be part of the narrative itself (it may be the very topic of the news story) or of the accompanying declarations or verbal reactions; it is occasionally contained too in the comments section (expectations, evaluations).⁹ Given this multifunctionality of speech reporting in news, given too the variety of styles and techniques adopted by journalists to convey verbal interventions, it is difficult to single out one textual criterion to explain the privileged use of HP with declarative verbs.

We want to suggest that this phenomenon is essentially due to the fact that Pr has no inherent aspectual value. Declarative verbs in HP normally refer to instances of speech which are unique and completed in the past. In such cases, they are contextually [+ perf]. Dates, adverbial complements, etc. promote this interpretation (see (18) for an example). But *verba dicendi* in the HP can also introduce multiple/repeated utterances, as in (16).

Two further points need to be made in relation to quoted speech in newspapers:

a) Readers are presented with the utterances (authentic, reconstituted, or summarized) of various people: e.g., influential persons in the socio-political arena, locally or internationally, or the people-on-the-scene who witnessed the event being described. These utterances are often spoken with authority in public and/or formal settings, and may lend authenticity to the journalist's report; they may even have a performative or quasi-performative force (cf. *décréter* 'to declare', *annoncer* 'to announce', for example). At least they are judged to be worthy of mention or to carry some weight (see van Dijk 1988: 87). It is often presumed that they may have some durable effect. In (19), for example, the HP declarative predicates contribute to emphasizing the imperative character of the guidelines recently given by the President, and the firmness of France's policies in the Pacific.

- (19) ...la solemnité est [était (- perf)] de rigueur. C'est le chef de l'Etat lui-même qui, dans une directive aux forces armées, rappelle [a rappelé (+ perf)] ces consignes. D'abord, il réaffirme [a réaffirmé (+ perf)] que les deux atolls polynésiens sont territoires de la République... (Le Monde, 20/8/85)
'...solemnity is [was] strictly observed. It is the Head of State himself who, in directives to the armed forces, recalls [recalled] these orders. First, he reaffirms [reaffirmed] that the two Polynesian atolls are territories of the Republic.'

In (20) and (21), the authors of two open letters expect reactions to their petitions and implicitly will keep asking and appealing until they receive the answers for which they are hoping.

- (20) Dans une lettre ouverte à M. François Mitterrand, Petr Uhl... lui demande [demanda, a demandé (+ perf)] d'intervenir "publiquement et énergiquement afin d'empêcher la condamnation honteuse de Vaclav Havel..." (Le Monde, 21/2/89)
'In an open letter to Mr. François Mitterrand, Petr Uhl... asks [asked] him to "publicly and resolutely intervene to prevent Vaclav Havel's shameful condemnation."
(21) Dans un texte publié par le quotidien "An Nahar" Mmes J. Kauffmann, E. Fontaine et S. Khoury... lancent [lancèrent, ont lancé (+ perf)] un appel au Jihad islamique: "Au nom de Dieu, nous vous conjurons de mettre un terme à notre attente..." (Le Journal du Dimanche, 23/3/86)
'In a text published by the daily newspaper *An Nahar*, Mrs. J. Kauffman, E. Fontaine and S. Khoury... appeal [appealed] to the Islamic Jihad: "In the name of God, we beseech you to put an end to our waiting..."

Thus, in spite of the fact that the declarative action is telic, it is presented as having a result phase of some relevance: although the agent has ceased to be active, the predicate continues to be valid.

b) Another characteristic of declarative verbs in newspapers is the durability of their aftermath, in particular, the fact that they are often predicated on the basis of actual (temporary or permanent) records,¹⁰ which are written or taped. The existence of these records is frequently signalled in the body of the article: reference is made, for example, to a *communiqué* 'press release, communiqué', *décret* 'decree', *dépêche* 'dispatch', *lettre* 'letter', *message* 'message', *rapport* 'report', *texte* 'text', etc., as in passages (18), (20), (21); or it is presupposed by the layout of the article. Passage (22), for instance,

- (22) Dans une interview qu'il nous a accordée, le lundi 20 février, M. Michel Pezet... dément [démentit, a démenti (+ perf)] que des négociations aient eu lieu...: "... (Le Monde, 21/2/89)
'In an interview that he granted to us on Monday, February 20, Mr. Michel Pezet... denies [denied, has denied] that negotiations took place...: "...'

is followed by an alternation of questions (by the journalist) and answers (by the

socialist candidate). As the final note suggests: "Propos recueillis par Guy Porte" 'remarks collected/conversation recorded by Guy Porte', the journalist simply quotes from a recorded interview. The same is true of lengthy articles - which it is impossible to reproduce here - such as 'Les orphelins de Bernard Pivot' (*Le Monde*, 22/6/90) or 'Vingt ans d'irakophilie française' (*Le Monde*, 28/8/90), which are punctuated with numerous HP's in incidental clauses and associated quotations.

With declarative verbs, therefore, a perfective HP, because of the neutrality of Pr with regard to aspect, can support nuances of imperfectivity. These nuances (duration, permanence, orientation towards PP in the result phase of the predicate) combine with its basic contextual perfectivity without creating infelicitous utterances.

The degree of imperfectivity in HP of speech-introducing verbs varies with the context and the situation referred to. It appears clearly in (19), (20), (21) (as discussed above); it is also discernible in (17), where the evaluation of the Malagasy President by the observer can receive a twofold interpretation: it may be seen as a unique manifestation of his unfavorable judgement (expressed once in the past to the interviewer); or as a particular instance of an opinion (which has the potential of being reiterated). Finally, there are cases where the declarative verb in the Pr can barely or not at all be replaced by a past tense. At this point, imperfectivity has taken over, and with it, stative aspect and non-agentivity. The subject of the declarative verb is no longer a [+ human] entity, but an object, the recorded document itself.

- (23) *Ce message indique (OP) notamment: "Le régime raciste a trop longtemps eu les coudées franches..." (Le Monde, 18/6/86)*
 'This message indicates in particular: "The racist regime has had free play for too long..."'
- (24) *Le président colombien... a décrété... "un état d'urgence social et économique"... Le décret instaurant l'état d'urgence fait référence [OP] au massacre... "L'ordre économique et social du pays a été perturbé", indique [OP] le décret signé par le président Betancur. (Le Monde, 22/11/85)*
 'The Columbian president... has decreed... "a social and economic state of emergency"... The decree establishing the state of emergency refers to the massacre... "The country's economic and social order has been disturbed", the decree signed by President Betancur indicates.'

OP's (*indique, fait, indique*) have replaced HP's. Their validity started at a moment in the past which could easily be pinpointed, but which is not highlighted. Focus is on the content of the quoted text, not on the act and person that are at its origin. There are similarities between certain declarative HP's [+ perf, with current relevance] (see examples (18), (19)) and the quotative Pr's discussed by Casparis (1975: 137). In phrases like *comme Platon le dit [a dit] dans la République* 'as Plato says [said] in the Republic', used by speakers to substantiate an argument, Pr is not compulsory; however, since Plato's work is still extant, Pr can be selected if the intended meaning is 'at any time since the writing of the book and in particular now, for the purpose of my discussion'. A past tense is preferred if Plato's utterance needs to be anchored in the past and focus is on its completion, for

whatever reason (historical perspective, contrastive effect between then and now, etc.)

Simonin (1984: 181) remarks that declarative HP's are often not the exact equivalents of pure past tenses, but seem more related to atemporal Pr's (AP [\emptyset past, \emptyset perf]). As a result, one may be hesitant about the exact temporal-aspectual value of certain Pr's with declarative verbs. This could apply to our examples (20) and (21), where the reader feels no urgent need to adopt a retrospective view of the situation even if past equivalents are acceptable for the Pr forms. Simonin further proposes that the AP interpretation of declarative Pr's is due to the frequent reference they make to written utterances. This suggests, therefore, that we conceive of written texts as entities independent of time.¹¹ This is certainly corroborated by our examples (23) and (24), where Pr is compulsory. The same idea partially underlies Wilmet's discussion of what he calls "présent de persistance", i.e., whose signified has lasting existence¹² (1976: 25). Taking the example of a photograph of Général de Gaulle with the caption:

- (25) *Accompagné d'un aide de camp, il arrive [est arrivé (+ perf)] à la BBC.*
'Accompanied by an aide-de-camp, he arrives [arrived] at the BBC.'

Wilmet stresses the importance of the "support matériel", which, he says, "éternise le signifié" (1976: 35-36). In this case the primary perfectivity of HP (*arrive* represents an achievement situation) is permeated by the imperfectivity that the référent acquires by virtue of being translated onto a durable medium. The contradiction in aspect [+ perf]/[- perf], however, as well as the temporal contradiction between [+ past]/[- past], does not produce any semantic confusion. It may contribute though to a reading of *arrive* which transcends aspect and time, namely an AP reading.¹³

To go back to declarative verbs, the following conclusion can be drawn: newspapers make use of Pr to report speech in two polar ways: on the one hand, with declarative predicates in HP contextually interpreted as [+ perf, + past]; on the other hand, with declarative predicates in OP/AP whose interest is independent of an actual, particular, completed occurrence in past time [- perf; + past/ \emptyset past]. In between, there are transitional cases characterized by decreasing focus on perfectivity/past and increasing attention paid to the result phase and permanence of the process.

4. Conclusion

The contextual richness of HP is not limited to the examples we have discussed here, nor to the particular semantic categories we have seen; there are many other examples (some explored in Monville-Burston - Waugh 1990) of the positive communicative value of multiple meanings for HP. In all cases, the tense and the text are inextricably interwoven: because the possibility of multiple meanings arises from and is justified by the particular text in which HP occurs, and because the presence of two simultaneous meanings makes the text denser and more nuanced than it would otherwise be. Multisemanticity is yet more proof that no understanding of tense can be gained without a fine-grained analysis of actual texts which takes into account the interrelation between given tenses and their contexts.

Notes

1. For further discussion, see Monville-Burston - Waugh (1990).
2. For more discussion of these types of Pr and their relationship to markedness, see Monville-Burston - Waugh (1990).
3. In the examples, HP's will be given in capital letters, followed within brackets by the equivalent past tenses and whether those equivalents are perfective (+ perf) or imperfective (- perf), or both (+ perf).
4. The reader is referred to our longer study, Monville-Burston - Waugh, in which we investigate temporal and other aspectual multivalency of HP.
5. *Etre* in SP would not produce the same effect, as SP is perfective. For CP, see discussion below. On the relationship between aspect and the auxiliaries *être* and *avoir*, see Martin (1971: 58-70).
6. It is not the purpose of this article to establish a typology of tense switching involving HP. Note, however, that when Imp - HP transitions occur, they are normally accompanied by an aspectual change: [- perf] - [+ perf].
7. See Simonin's remark: "Si les transitions ps-prs [SP-Pr] sélectionnent la valeur aoristique [here (+ perf)] du prs [Pr], les transitions pc-prs [CP-Pr] sont plus ambiguës" (1984: 179).
8. See Fleischman (1990) for a useful survey.
9. We follow here Van Dijk's thematic tree structure of news discourse (1985: 84-88, 1988: 55).
10. See further discussion below. See also Van Dijk's list of "13 source texts (oral and written) which are immediately available to reporters" (1988: 126-129).
11. As Simonin remarks, "On peut se demander si la fréquence des présents se référant à des discours écrits ne reflète pas une conception atemporelle du texte écrit" (1984: 181).
12. See his example: "*Bourdaloue ne recommande [recommanda, a recommandé (+ perf)] pas une charité passive*" ('Bourdaloue [a moralist writer] does not advocate [did not advocate] passive charity'). There is however a difficulty with Wilmet's definition of the "présent de persistance". On p. 35, this Pr is said to be permutable with past tenses; but on p. 25, the following types of Pr's are included in the category: stage directions, titles of paintings, plot summaries - all of these being Pr's which do not have past tense equivalents. This shows how Pr tense classifications are slippery. As Wilmet notes himself, "le glissement est insensible" between his three kinds of past-presents (1976: 35-39): the "présent de persistance", the "présent tabellaire", and the "présent historique". In fact, it is also difficult to make a clear difference between the perfective HP's with current relevance (a type of "présent de persistance") and the OP/AP "présents de persistance" [± past /ø past, - perf].
13. For more discussion, see Fleischman (1990) on the *récit de vie* genre, which "freezes" events as in a photograph. In addition, according to Fleischman (personal communication), "the use of AP to discuss a discourse often implies a *spatial* rather than a *temporal* conceptualization of that discourse-something we would expect to go along with writing. Conversely, a discourse

described in temporal terms (i.e., as unfolding through time) correlates more with speech. Thus we have the associations:

Spatial	Temporal
Writing	Speech
Static	Dynamic
AP	Tenses with temporality (Past tenses, PP)".

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Résumé

Le système morphologique du verbe grec ancien comporte cinq 'thèmes temporels': présent, aoriste, futur, parfait, futur du parfait. Chaque thème temporel peut disposer de cinq 'modes': indicatif primaire (non-prétérit), indicatif secondaire (prétérit), subjonctif, optatif, impératif; il dispose aussi d'un infinitif et d'un participe. Les grammairiens grecs de l'Antiquité décrivent les valeurs de toutes ces formes en termes temporels et modaux. Ils ne se servent pas de la notion moderne de l'aspect'. Les thèmes temporels peuvent servir à exprimer le 'temps relatif' (simultanéité, antériorité, postériorité). Les modes servent en principe à exprimer le 'temps absolu' (présent, passé, futur). A juste titre, les grammairiens font observer que le trait sémantique 'futur' est inhérent à la valeur de l'impératif, du subjonctif et de l'optatif, du moins dans les principales. Dans notre exposé, nous examinerons quelques emplois de ces formes. Il s'agira notamment de l'emploi 'inceptif' de l'impératif et de l'infinitif présent: type ἀναγίγνωσκε 'commence à lire', ἤθελε εἰσέναι 'il voulait entrer *immédiatement*'. Nous nous occuperons aussi de l'emploi 'totalisant' du parfait: type πολλά ξυγκεχωρήκαμεν 'nous avons concédé *jusqu'ici beaucoup* de choses' (totalisant-itératif), τοῦτο ἐμμεμένηκε 'cette habitude a subsisté *jusqu'ici*' (totalisant-continuatif).

1. Introduction

Déjà Aristote a formellement établi que le trait sémantique essentiel du verbe, par opposition au nom, consiste à exprimer le *temps* (χρόνος) en outre de l'action elle-même.¹ Bien entendu, le terme de χρόνος désigne ici le *rapport temporel*, c'est-à-dire la catégorie de la distinction entre l'antériorité, la simultanéité et la postériorité. Dans les manuels, le terme de *temps relatif* est le plus souvent restreint au cas où il s'agit du rapport temporel entre l'action du verbe en question et une autre action *mentionnée* (ou suggérée) *dans le contexte*. Lorsqu'il s'agit du rapport temporel entre l'action du verbe et l'*acte de la parole*, c.-à-d. le *moment présent*, on se sert souvent du terme de *temps absolu*, catégorie de la distinction entre le passé, le présent et le futur (ainsi Comrie 1985). Bien que l'expression de 'temps absolu' est peu heureuse, nous nous en servirons pour l'opposer à celle de 'temps relatif' au sens restreint.

Aristote a également établi que le *moment présent* (τὸ νῦν καθ' ἑαυτό 'le maintenant en soi') est la *frontière* entre le passé et le futur: il est *indivisible* et se compare à un *point d'une ligne*. Les grammairiens grecs anciens ont élaboré cette notion en l'appliquant aux valeurs sémantiques des différentes formes du verbe. Dans cet ordre d'idées, une *forme de présent* comme γράφει 'il écrit' exprime que l'action mentionnée comporte une *partie passée* (ἔγραψε 'il a écrit', à savoir jusqu'au moment présent) et

une *partie future* (γράφει 'il écrira', à savoir à partir du moment présent). En s'opposant aux philosophes, les grammairiens font observer que le moment présent n'est pas entièrement dépourvu de durée mais que sa durée est *toute brève*. Cette observation s'accorde avec l'usage de la langue qui connaît des expressions comme ἐν στιγμή χρόνον 'en un point de temps', c.-à-d. 'en un instant'.

Les grammairiens anciens font également observer que la valeur des autres modes que l'indicatif, c.-à-d. celles de l'*impératif*, du *subjonctif* et de l'*optatif*, impliquent le trait sémantique *futur*. Ainsi, l'impératif γράψον 'écris' exprime que le locuteur invite la seconde personne à réaliser l'action dans le temps futur. Sous ce rapport, il faut souligner la différence essentielle entre les actions du passé et celles du futur. Les actions du passé sont en principe des actions *constatées*, à la différence de celles du temps futur. Au point de vue 'logique', une phrase comme *Jean viendra demain* n'est qu'une *prédiction*, qui comporte la clause inhérente *si rien d'imprévu n'intervient*. C'est pourquoi le temps futur est le domaine caractéristique des modalités du *désir* et du *possible*. A cet égard, on ne s'étonne pas du fait que par exemple les langues germaniques disposent bien d'une forme verbale spécifique pour l'impératif, mais non pas pour l'indicatif du futur, qui ne peut s'exprimer qu'à l'aide d'un auxiliaire. Ainsi, le type anglais *he will write* comporte le verbe de modalité *will* 'vouloir'. De même, l'indicatif futur du grec ancien du type πλεύσει 'il naviguera' a chance de remonter à un verbe dérivé à valeur désidérative (suffixe -σει-; valeur préhistorique 'je veux naviguer'; voir Chantraine 1953: 201). Et le futur du grec moderne du type θά γράψει 'il écrira' est issu de l'expression θέλει να γράψει 'il veut écrire' (mot à mot: 'il veut qu'il écrive').

2. La structure morphologique du verbe

Avant d'aborder l'examen des valeurs temporelles des formes verbales du grec, il est utile de faire quelques remarques sur leur structure morphologique. Prenons la forme δείκνύ-η-ται. Elle comporte le thème verbal δείκν- 'montrer', suivi des formants -νυ-, -η- et -ται. Le formant -νυ- sert à constituer ce qu'on appelle le *thème du présent* (δείκνυ-), qui s'oppose aux autres *thèmes temporels* (thème d'aoriste, etc.). Le formant -η- est le morphème du *subjonctif*, qui s'oppose aux autres *modes* (optatif, etc.). Le formant -ται est la *désinence personnelle* pour la 3^e personne du singulier mais elle exprime à la fois la *voix moyenne* et la *modalité primaire*. En effet, la désinence personnelle est un *morphème portemanteau* qui spécifie (1) la personne et le nombre du sujet, (2) la *voix* et (3) le *genre de modalité*. Le grec distingue deux voix ou diathèses: l'*actif* et le *moyen* (à valeur réfléchi ou passive). Il distingue trois genres de modalité: celui de la modalité *primaire*, dont les espèces sont l'indicatif primaire (non-prétérit) et le subjonctif (§7); celui de la modalité *secondaire*, dont les espèces sont l'indicatif secondaire (prétérit) et l'optatif (§8); celui de l'*impératif*. Ainsi, la désinence primaire -ται s'oppose à la désinence secondaire -ρο et à la désinence de l'impératif -σθω.

3. Les thèmes temporels

Le grec a cinq *thèmes temporels*, qui constituent le système suivant:

th. présent	:	th. aoriste	th. parfait
th. futur			th. futur du parfait

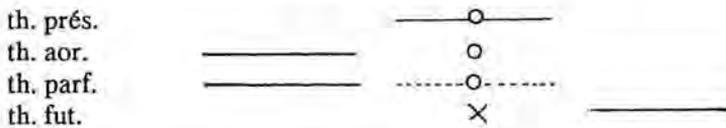
Ainsi, l'on trouve pour le verbe moyen βουλευ- 'délibérer en soi-même' les cinq infinitifs suivants (avec la désinence -σθαι de l'inf. moyen):

βουλευ-ε-σθαι	:	βουλευ-α-σθαι	βε-βουλευ-σθαι
βουλευ-σε-σθαι			βε-βουλευ-σε-σθαι

Voici les valeurs fondamentales des cinq thèmes temporels:

- Le thème du présent exprime qu'à un moment donné (par la situation ou le contexte), l'action² exprimée par le thème verbal est encore en cours, qu'elle est encore *inachevée* (valeur *imperfective*).³
- Le thème de l'aoriste exprime que l'*achèvement* (ou la fin) de l'action est *antérieure* à un moment donné (valeur *confective*).⁴
- Le thème du parfait exprime qu'à un moment donné, l'*état résultant de l'achèvement* de l'action exprimée par le thème verbal subsiste encore (valeur *statique-perfective*).
- Le thème du futur exprime que l'action est *postérieure au moment présent*.
- Le thème du futur du parfait exprime que l'*état résultant de l'achèvement* de l'action exprimée par le thème verbal est postérieur au moment présent.

Voici une représentation graphique:



La ligne continue représente l'action exprimée par le thème verbal, le tiret vertical le moment de l'achèvement de l'action, le pointillé l'état résultatif, le petit cercle le moment donné, la croix le moment présent.

4. Le 'moment donné'; le temps relatif

La notion de *moment donné* est comparable à celle d'*endroit donné*. Une phrase comme *Jean est tout près* exprime un rapport local: '... à toute petite distance d'un endroit donné'. Il peut s'agir de l'endroit du locuteur ou de l'interlocuteur, de l'endroit que montre le locuteur dans la situation concrète, de l'endroit qu'il vient de mentionner ou qu'il va mentionner ou d'un endroit simplement présent dans son esprit. Dans le cas du moment donné, il peut s'agir du moment présent, du moment initial d'une autre action mentionnée dans le contexte ou d'un moment simplement présent dans l'esprit du locuteur. Le moment donné est le *point d'orientation*.

Dans le cadre esquissé ci-dessus, il est évident que le thème du *présent* et celui de l'*aoriste* sont bien qualifiés pour exprimer, respectivement, la *simultanéité* et l'*antériorité*, donc le temps relatif. Cela s'observe par exemple dans l'emploi des participes:

- πίων [part.prés.] ἀνέστη 'en buvant il se leva'
- πῶν [part.aor.] ἀνέστη 'ayant bu il se leva'
- πεπωκώς [part.parf.] ἀνέστη 'étant dans l'état d'avoir bu il se leva'

On voit que la valeur du thème du parfait est complexe: l'état résultatif est simultané mais l'action achevée est antérieure à l'action du verbe principal.

Le thème du futur, en revanche, exprime en principe le *futur absolu*. Pour exprimer le *futur relatif*, par exemple le futur dans le passé, le grec se sert de l'auxiliaire μέλλειν avec l'infinitif: type ἔμελλε γράψειν 'il allait (devait) écrire'.⁵ Il est vrai qu'Homère conserve quelques traces de l'emploi du thème du futur pour exprimer le futur relatif, c.-à-d. la postériorité de l'action.⁶

La seule exception apparente concerne le *style indirect* (au sens large).⁷ Le grec emploie en style indirect le thème temporel qui répond au style direct. Cela explique l'emploi du thème du futur dans les exemples suivants:

- ἔφη πίεσθαι [inf.fut.] 'il disait qu'il boirait' (§9)
- εἶπεν ὅτι πίεται [ind.prim.fut.] 'il a dit qu'il boirait'⁸

En style direct, on aurait πίομαι 'je boirai', c.-à-d. un futur absolu. C'est dans ce cadre que s'explique l'emploi *final* du *participle futur*:

- ἀνέστη πιόμενος [part.fut.] 'il se leva pour boire'

En effet, cette expression finale se rapporte à une pensée du sujet qui en style direct serait πίομαι 'je boirai'.

Le futur du parfait comporte tant le morphème du futur -σε- que celui du parfait, c.-à-d. le redoublement qui précède le thème verbal: type βε-βουλεύ-σε-σθαι. Le futur simple du type βουλεύ-σε-σθαι, en revanche, ne comporte ni le morphème du présent (βουλεύ-ε-σθαι) ni celui de l'aoriste (βουλεύ-σα-σθαι). Ce futur est donc *neutre* quant à l'opposition *imperfectif* : *confectif*. Il ne peut donc pas s'employer dans les subordonnées temporelles, où la distinction entre la simultanéité et l'antériorité ('futur antérieur') est essentielle (§7).

5. Les modes; l'indicatif primaire et l'indicatif secondaire

Tandis que les thèmes temporels servent en principe à exprimer le temps relatif (abstraction faite des thèmes de futur), les *modes* du verbe fini expriment le *temps absolu*, en outre de leur valeur modale. En principe, chaque thème temporel dispose de cinq modes:

indicatif primaire

subjonctif

impératif

indicatif secondaire

optatif

Ainsi, on trouve pour la 3^e personne du singulier moyen du thème de présent βουλεν-ε- (alternant avec βουλεν-ο-):

βουλεύ-ε-ται

βουλεύ-η-ται

βουλεν-έ-σθω

έ-βουλεύ-ε-το

βουλεύ-ο-ι-το

Il faut noter que l'élément -η- (e long) du subjonctif représente à la fois le morphème du présent et le morphème du subjonctif.

Abstraction faite du thème du futur (§3-4), on peut établir pour les modes les valeurs fondamentales suivantes:

L'indicatif primaire exprime que l'action ou l'état exprimé par le thème temporel comporte le moment *présent*. Le moment donné est ici le moment *présent*. Donc πίνει 'il boit' (prés.),⁹ πέπωκε 'il est dans l'état d'avoir bu' (parf.). Au point de vue morphologique, le grec constitue l'ind.prim. en ajoutant l'une des désinences primaires immédiatement après le thème temporel.

Le thème d'aoriste ne dispose pas d'un indicatif primaire. En effet, une forme constituée d'un thème d'aoriste immédiatement suivi d'une désinence primaire exprimerait deux valeurs incompatibles: l'achèvement de l'action avant le moment présent et la présence de l'action au moment présent.

L'indicatif secondaire exprime que l'action ou l'état exprimé par le thème temporel est situé dans le *passé*. Au point de vue morphologique, le grec constitue l'ind. sec. en ajoutant les désinences secondaires immédiatement après le thème temporel et en plaçant l'augment έ-, morphème à valeur 'passé', avant le thème temporel.¹⁰ Dans le grec le plus ancien (textes mycéniens et Homère), l'augment est encore facultatif. Pour l'indicatif secondaire du thème du *présent* (*l'imparfait*) et celui du thème du *parfait* (*le plus-que-parfait*), le moment donné est un moment du passé. Donc έπινε 'il buvait', έπεπόκει 'il était dans l'état d'avoir bu'. Pour l'ind. sec. du thème de l'aoriste, en revanche, le moment donné est *soit* le moment présent *soit* un moment du passé. Le premier cas concerne la *simple constatation* d'une action *isolée*¹¹ du passé, emploi qui se présente notamment dans les textes de *conversation*: έπιε 'il a bu'. Le second cas concerne notamment les textes *narratifs* où il s'agit en principe d'une *série* d'actions *cohérente*: type 'il entra ..., il but du vin ..., (puis) il parla à son voisin ...'. Ici, l'aoriste έπιε 'il but' exprime que l'achèvement de l'action de boire était antérieur à l'action de parler au voisin. Pour έπιε, le moment donné est donc le *moment initial* de l'action de parler au voisin.¹²

Dans le contexte que nous venons de mentionner, l'imparfait έπινε exprimerait que l'action de boire était encore inachevée au moment initial de l'action de parler au voisin, c.-à-d. que les deux actions avaient en commun un certain espace de temps (rapport de simultanéité). En français, on pourrait traduire έπινε dans un tel contexte par l'expression 'il commença à boire', 'il se mit à boire', expression qui signale explicitement qu'au moment en question du récit, le *commencement* de l'action de boire était déjà un fait acquis, à la différence de son achèvement. Nous désignons cet emploi

du thème du présent par le terme d'*inceptif*¹³ (voir §11).

En principe, le récit suit l'ordre chronologique des actions. Il arrive, bien entendu, qu'une action antérieure soit mentionnée à titre d'explication *après une action postérieure*. En grec, le choix du thème temporel est le même que dans le cas de l'ordre chronologique. Ainsi, l'aoriste ἔπιε s'emploie également dans le cas du type 'il tomba malade, car il avait bu trop de vin'.

Le thème de futur ne dispose pas d'un indicatif secondaire puisqu'il exprime le futur absolu (§4).

6. L'impératif

Passons maintenant aux autres modes:

L'*impératif* exprime que le locuteur invite l'interlocuteur à *intervenir* dans le cours d'affaires en réalisant l'action dans le temps futur, soit en agissant lui-même soit par l'intermédiaire d'une troisième personne. Au point de vue morphologique, le grec constitue l'impératif en ajoutant les désinences de l'impératif (2^e ou 3^e personne) immédiatement après le thème temporel.¹⁴

Le choix entre l'impératif du présent et celui de l'aoriste dépend du moment donné. Lorsque le locuteur dit γράφε 'écris' [impér. prés.], il a à l'esprit un moment futur où il pourra constater γράφει 'il écrit', c.-à-d. au moins le *commencement* de l'action désirée. Lorsqu'il dit γράψον 'écris' [impér.aor.], il a à l'esprit un moment futur où il pourra constater ἔγραψε 'il a écrit', c.-à-d. l'*achèvement* de l'action désirée.

Dans le cas où l'impératif s'emploie dans l'expression d'une *série* d'actions *cohérente*, le choix du thème temporel est déterminé par les rapports temporels entre les actions successives, tout comme dans un texte narratif. Ainsi, dans 'entre ..., bois du vin ..., parle à ton voisin ...', l'impératif *aoriste* πῖθι 'bois' signale que le sujet doit parler à son voisin *après avoir bu*, l'impératif *présent* πῖνε qu'il doit parler *en buvant*.

Dans le cas d'une action *isolée*, l'impératif *aoriste* est l'expression la plus *neutre*, du moins lorsqu'il s'agit d'une action plus ou moins *terminative*: γράψον ... 'écris ...' (à quelque temps). L'impératif *présent* γράφε s'emploie quand l'ordre concerne surtout le *commencement* de l'action: 'commence à écrire' (commencement *immédiat*: emploi *inceptif*; §11); ou bien quand l'ordre concerne la *continuation* d'une action déjà commencée avant le moment présent: 'continue à écrire' (emploi *continuatif*); ou bien quand l'ordre concerne une action qu'il faut réaliser à *plusieurs reprises*: 'écris de temps en temps' (emploi *itératif*).

7. Le subjonctif

Le *subjonctif* a pour valeur fondamentale d'exprimer que le locuteur *désire* la réalisation future de l'action et qu'il la considère comme *au moins bien possible*. Au point de vue morphologique, le grec constitue le subjonctif en ajoutant au thème temporel d'abord le formant -η- (alternant avec -ω-), puis l'une des désinences primaires.¹⁵ En effet, la désinence *primaire* signale que l'action ou l'état appartient à l'*actualité*, c.à.d. que sa *réalisation future* est *au moins bien possible*. Si les désinences primaires s'emploient non seulement pour le subjonctif et l'indicatif (primaire) du futur mais aussi

pour l'indicatif primaire du présent et du parfait, qui exprime une action ou un état *présent*, c'est que l'action ou l'état présent comporte une partie *future, postérieure au moment présent* (§1).

Dans les principales, le subjonctif s'emploie comme mode du désir là où l'impératif ne peut pas s'employer, notamment dans l'*exhortation* du type *νικήσωμεν* 'vainquons' [subj.aor.]. Le choix du thème temporel est déterminé de la même façon que pour l'impératif. L'emploi du subjonctif dans les subordonnées *inales* s'explique du fait qu'elles expriment une action *désirée*.

Chez Homère, on trouve quelques exemples où le subjonctif équivaut à l'indicatif (primaire) du futur, c.-à-d. que le trait 'désiré' fait défaut (Ruijgh 1971: 288). Il s'agit là de traces de l'emploi originel de cette forme en proto-indo-européen, où elle exprimait non seulement l'action désirée (phrase non déclarative) mais aussi l'action simplement future (phrase déclarative). Ainsi, le futur *erit* 'il sera' du latin est issu du subjonctif proto-indo-européen. Dans l'évolution préhistorique du grec, cet emploi du subjonctif a été supplanté par l'emploi du nouveau thème de futur, issu de l'ancien verbe désidératif (§1). Il y a cependant une exception importante: le nouveau thème de futur n'a jamais pénétré dans les *subordonnées temporelles* introduites par *ὅτε* 'lorsque', etc. Cela s'explique du fait qu'ici, l'emploi du thème du *présent* et du thème de l'*aoriste* était nécessaire pour faire la distinction entre la *simultanéité* et l'*antériorité* de l'action subordonnée par rapport à l'action principale (§4).¹⁶ Exemple:

- ὅταν πίνῃ [subj.prés.] ἀναστήσεται 'lorsqu'il boira, il se lèvera'
- ὅταν πίνῃ [subj.aor.] ἀναστήσεται 'lorsqu'il aura bu, il se lèvera'

L'emploi de la particule *ἄν* ('le cas échéant'; *ὅταν* < *ὄτ(ε) ἄν*) est obligatoire après Homère lorsque la valeur modale du subjonctif répond à celle de la phrase déclarative.¹⁷

La subordonnée temporelle au subjonctif peut aussi être accompagnée d'une principale qui comporte l'*ind.prim. du présent* exprimant une action *itérative*. Une telle phrase complexe exprime un rapport *itératif-distributif*: chaque répétition de l'action subordonnée est accompagnée d'une répétition de l'action principale ('lorsque' = 'chaque fois que'). Exemple:

- ὅταν πίνῃ [subj.prés.] ἀνίσταται 'lorsqu'il boit, il se lève'
- ὅταν πίνῃ [subj.aor.] ἀνίσταται 'lorsqu'il a bu, il se lève'.¹⁸

8. L'optatif

L'*optatif* a pour valeur fondamentale d'exprimer que le locuteur *désire* la réalisation de l'action et qu'il la considère comme *possible tout au plus*. Au point de vue morphologique, le grec constitue l'optatif en ajoutant au thème temporel d'abord le formant *-ι-* (alternant avec *-ιῃ-*), puis l'une des désinences secondaires.¹⁹ En effet, la désinence *secondaire* signale l'*absence d'actualité*, c.-à-d. que l'action est située ou bien entièrement dans le *passé* (indicatif secondaire) ou bien dans le monde du *simplement possible* ('futur éloigné', etc.). On peut comparer l'emploi anglais de la forme prétéritale dans des expressions comme *we might win* 'nous pourrions vaincre' (modalité *potentielle*).

Dans les principales, l'optatif s'emploie dans l'expression du *souhait* dont la réali-

sation dépend des dieux, du destin: le locuteur ne se sent guère en état d'influencer ces puissances. Ainsi, l'optatif *νικήσαιμεν* [aor.] 'plût au ciel que nous vainquissions' s'oppose au subjonctif d'exhortation *νικήσωμεν* 'vainquons'. Accompagné de la particule *ἄν*, qui supprime le trait 'désiré' et signale la modalité de la phrase déclarative, l'optatif exprime le *potentiel*: *νικήσαιμεν ἄν* 'nous pourrions vaincre'.²⁰

Dans les subordonnées où le subjonctif exprime le temps futur, l'optatif sert à exprimer le *futur dans le passé*. Ainsi, on a dans les subordonnées finales le type *ἀνέστη ἵνα πῖλοι* [opt.aor.] 'il se leva pour qu'il *bât*' vis-à-vis de *ἀναστήσεται ἵνα πῖλη* [subj.aor.] 'il se lèvera pour qu'il *boive*'.²¹ Cela s'explique du fait que l'optatif exprime l'absence d'actualité, tout comme l'indicatif secondaire, le prétérit.

Dans l'expression du rapport *itératif-distributif* restreint au *passé*, la subordonnée comporte l'optatif (sans *ἄν*) vis-à-vis du subjonctif (avec *ἄν*) dans l'expression du *non-passé* (§7).²² Exemple:

- ὄτε *πῖλοι* [opt.prés.] *ἀνίστατο* 'lorsqu'il *buvait*, il se levait'
- ὄτε *πῖλοι* [opt.aor.] *ἀνίστατο* 'lorsqu'il *avait bu*, il se levait'.

9. Le participe et l'infinitif

Chaque thème temporel dispose d'un participe et d'un infinitif. Morphologiquement, le *participe* se comporte comme un adjectif: ses formes fléchies expriment le nombre, le cas et le genre. Le plus souvent, il exprime le *temps relatif* (§4). En principe, sa valeur modale est *neutre*. Le plus souvent, il s'agit de la modalité caractéristique de l'indicatif, de la modalité *factive*.²³

Bien qu'on admette généralement que l'*infinitif* se comporte comme un *substantif*, nous sommes d'avis que l'infinitif grec se compare plutôt à un *adverbe*. En effet, l'infinitif grec est dépourvu de la flexion casuelle, à la différence de l'infinitif allemand par exemple. Lorsque l'infinitif sert de complément *librement ajouté* au verbe principal, il fonctionne comme un complément *adverbial* à valeur *finale*, emploi attesté surtout chez Homère: type *ἴτω ... εἰπέμεν* [inf.aor.] ... 'qu'il s'en aille ... *pour dire* ...' (H 372-3). Parfois, sa valeur consiste à exprimer la *conséquence possible*: type *εἰσὶ ... οἷδε τὰδ' εἰπέμεν* 'ceux-ci sont là *pour dire* ceci', c.-à-d. '... de sorte qu'ils *peuvent dire* ceci' (I 688). Beaucoup plus souvent, l'expression infinitive sert de complément plus ou moins obligatoire à un verbe comme *vouloir, devoir, falloir, pouvoir*, etc., ou à une expression verbale dont le sens comporte la notion de 'vouloir', etc. Au point de vue *temporel*, l'infinitif exprime en principe que l'action est *postérieure* à l'action exprimée par le verbe dont il dépend; il s'agit donc du *temps relatif*. Au point de vue *modal*, la valeur de l'infinitif répond à celle des modes qui expriment que l'action future est *désirée* ou *possible*, c.-à-d. le subjonctif, l'optatif et l'impératif. La modalité de l'infinitif est donc *non-factive*.²⁴

Le choix du thème temporel de l'infinitif est déterminé de la même façon que dans le cas de ces modes. Ainsi *χρῆν γράψαι* [inf.aor.] 'il fallait *écrire*' se compare à *γράψου* [impér.aor.] 'écris', tandis que *χρῆν γράφειν* [inf.prés.] se compare à *γράφε* [impér.prés.]. La valeur pratique de *χρῆν γράφειν* est donc, selon le contexte, 'il fallait *commencer* à écrire' (§12), 'il fallait *continuer* à écrire' ou 'il fallait *écrire de temps en temps*'.

Jusqu'ici, nous avons traité de l'emploi primaire de l'infinitif. Son emploi *déclaratif*

est secondaire, c.-à-d. l'emploi où l'infinitif sert à transposer en *style indirect* une phrase déclarative du style direct (§4). Dans cet emploi, le trait sémantique 'postérieur' est supprimé mais la valeur *non-factive* est intacte: l'infinitif indique que la proposition ne représente que l'opinion du 'protagoniste', de la personne qui parle ou qui pense, tandis que le locuteur ne se prononce pas sur la vérité de la proposition. Le thème temporel de l'infinitif répond à celui de la phrase déclarative en style direct. Type ἔφη γράψαι [inf.aor.] 'il disait (prétendait) avoir écrit' (style direct: ἔγραψα 'j'ai écrit'); ἐνόμιζε ἀδικεῖσθαι [inf.prés.] 'il croyait subir une injustice' (style direct: ἀδικοῦμαι 'je subis une injustice').²⁵

10. La notion d'aspect'

Voilà notre résumé, nécessairement incomplet, des valeurs temporelles des formes verbales du grec ancien. Nous espérons avoir montré que les formes verbales, y compris les thèmes temporels, expriment bien le 'temps', c.-à-d. des rapports temporels. Nous ne sommes pas d'accord avec ceux qui prétendent que les thèmes en question *n'expriment pas le temps mais l'aspect*, la *vision subjective* du locuteur, qui *envisage* l'action soit dans son développement ('action en cours': thème du présent) soit dans sa totalité ('action pure et simple': thème de l'aoriste). Noter que la définition de Comrie (1976:3) comporte bien la notion de 'temps': "*Aspects are different ways of viewing the internal temporal constituency of a situation*".

Aujourd'hui, le terme linguistique d'*aspect* suggère l'idée de *vue*, de *vision*, c.-à-d. qu'il s'agit d'un terme *sémantique*. Originellement, cependant, il s'agissait d'un terme *morphologique*, introduit au début du XIX^e siècle comme calque du terme russe *vid* dans la traduction française d'une grammaire russe (Ruijgh 1979: 222-223). Les premiers grammairiens russes ont introduit le terme de *vid* comme traduction de εἶδος 'forme, espèce', terme que les grammairiens grecs employaient pour la catégorie *morphologique lexicale* de la distinction entre le mot *primaire* et les mots *dérivés*. Le terme de *vid* pouvait donc s'appliquer à la distinction entre le verbe imperfectif et le verbe perfectif du russe: l'on sait que le verbe imperfectif est dérivé du verbe perfectif dans le cas des verbes composés (type perf. *pere-delat'*, imperf. *pere-delyvat'* 'refaire').

Il est vrai que le système du verbe grec est plus proche de celui du verbe slave que ne l'est, par exemple, celui du verbe latin. Néanmoins, il y a des différences essentielles. Ainsi, la forme du thème de l'aoriste grec peut être prédite à partir de celle du thème du présent, du moins dans la flexion régulière. En russe, en revanche, la forme du verbe perfectif ne peut pas être prédite à partir de celle du verbe simple imperfectif: le choix du préverbe du verbe perfectif est d'ordre lexical. Ainsi, on a perf. *s-delat'*: imperf. *delat'* 'faire', perf. *na-pisat'*: imperf. *pisat'* 'écrire', perf. *pro-čitat'*: imperf. *čitat'* 'lire'. L'emploi 'neutre' du verbe *imperfectif* dans l'expression russe pour une question comme 'As-tu lu ce livre?' et la réponse 'Je l'ai lu' (Comrie 1976: 113) n'a pas de pendant grec: dans de telles expressions, le grec emploie l'aoriste à valeur *confective*. C'est pourquoi nous préférons limiter l'emploi du terme d'*aspect* à la description du verbe slave.

11. L'emploi inceptif de l'indicatif secondaire et de l'impératif du présent

Nous allons faire maintenant quelques observations sur l'emploi *inceptif* du thème du présent, emploi reconnu par les Anciens mais passé sous silence dans la plupart des manuels modernes.²⁶ Dans son récit, l'historien Thucydide insère souvent des discours assez longs en style direct. La phrase qui *suit* le discours comporte normalement l'*aoriste* d'un verbe de dire: type *τοιαῦτα εἶπε* 'il dit des choses de ce genre-là'. L'*aoriste* s'explique du fait que la suite du texte raconte ce qui s'est passé *après* le discours. La phrase qui *précède* le discours, en revanche, comporte le plus souvent l'*imparfait* d'un verbe de dire: type *ἔλεγε* τοιάδε. Dans cette phase du texte, le discours n'est pas encore une action achevée, ce que souligne l'*imparfait*. On peut donc traduire: 'il commença à dire des choses de ce genre-ci'.

Voici un exemple tiré d'Homère (ι 179-180), où l'*imparfait* du verbe (καθ)ίζεω 's'asseoir' précède l'*aoriste* du même verbe: οἱ δ' ... εἴσβαλον [ind.sec.prés.] καὶ ἐπὶ κληῖσι καθίζον [ind.sec.prés.], ἐξῆς δ' ἐζόμενοι [part.aor.] ... ἄλλα τύπτου [ind.sec.prés.] ἔρετμοῖς. 'Eux commencèrent à s'embarquer et à s'asseoir aux tolets; s'étant assis en ligne, ils se mirent à battre la mer avec les rames.' L'*imparfait* καθίζον signale qu'à ce moment du récit, l'action de s'asseoir n'est pas encore achevée, c.-à.-d. que seul le commencement de l'action est un fait acquis. Ensuite, le participe d'*aoriste* ἐζόμενοι signale explicitement l'achèvement de l'action (Ruijgh 1985: 52).

Il arrive que la dernière action mentionnée d'un récit soit exprimée par l'*imparfait* d'un verbe terminatif. Voici un exemple tiré d'Hérodote (8, 138, 3): ἐνθεῦτεν δὲ ὁρμώμενοι, ὡς ταύτην ἔσχον, κατεστρέφοντο καὶ τὴν ἄλλην Μακεδονίην. 'Partant de là, lorsqu'ils eurent occupé ce pays, ils se mirent à subjuguier aussi le reste de la Macédoine.' L'emploi de l'*imparfait* κατεστρέφοντο au lieu de l'*aoriste* κατεστρέψαντο 'ils subjuguèrent' implique qu'Hérodote, qui sait bien que le peuple en question a réussi à subjuguier la Macédoine entière, laisse ouverte, pour ainsi dire, la fin de son récit: il aurait pu le continuer en mentionnant des détails de l'opération militaire en question, mais il s'en abstient (Ruijgh 1985: 51-52).

Dans l'emploi inceptif de l'*impératif* présent, le locuteur admet en général qu'*immédiatement* après ses paroles, la personne à laquelle il s'adresse va commencer à réaliser l'action en question. Voici un exemple tiré d'un discours de Démosthène (24, 32). En s'adressant au greffier, l'orateur dit:

Ἀνάγνωθι [impér.aor.] δέ μοι λαβὼν τουτοῦ πρώτου τὸν νόμον ὃς διαρρήδην οὐκ ἔῃ νόμον οὐδέν' ἐναντίου εἰσφέρειν, ἐὰν δέ τις εἰσφέρει, γράφεσθαι κελεύει. *Ἀναγίνωσκε* [impér.prés.]. 'Prends, je te prie, et lis d'abord la loi qui défend expressément de présenter une proposition contraire aux lois établies, et qui, si le cas se produit, prescrit la mise en accusation du coupable. Lis.'

L'orateur emploie d'abord l'*impératif aoriste* avec un objet spécifique, en donnant ainsi ses instructions au greffier. Celui-là n'est pas encore tout à fait prêt à lire: il lui faut d'abord prendre le document en question. Ce que l'orateur désire constater plus tard, c'est que le greffier a lu (*ἀνέγνω*: aor.) à haute voix le texte de la loi: ce n'est qu'après cette lecture que l'orateur pourra continuer son discours en renvoyant à ce texte. Après que l'orateur a prononcé la phrase, le greffier a en mains le document en question et est donc prêt à lire. A ce moment, l'orateur lui dit *ἀναγίνωσκε* [im-

pér.prés.], en lui faisant ainsi signe de commencer la lecture. L'orateur est sûr qu'un instant plus tard, le greffier *est en train de lire* (ἀναγιγνώσκει: prés.). En effet, le greffier *peut* commencer et il le *veut* bien, parce que c'est sa tâche normale. En français, on peut rendre ἀναγιγνώσκει par '*commence* (à lire)'. Sous ce rapport, il faut constater que le grec n'emploie jamais l'impératif du verbe ἀρχεσθαι 'commencer'.²⁷ La valeur en question est donc exprimée par l'impératif présent du verbe spécifique.

Le trait sémantique 'immédiatement', 'dès maintenant' joue également son rôle dans l'emploi de la particule prohibitive μή avec l'impératif présent. On peut dire μή γράφε [impér.prés.] à une personne qui est déjà en train d'écrire ou qui est prêt à écrire: paraphrase 'stop! ne continue pas à écrire' ou 'stop! ne commence pas à écrire'. L'élément stop représente l'intervention désirée par le locuteur. Quand, en revanche, la question d'écrire ou de ne pas écrire ne sera actuelle que plus tard, le grec se sert de μή avec le subjonctif de l'aoriste: μή γράψῃς 'n'écris pas'. C'est l'expression de la défense proprement dite: le locuteur désire l'abstention plutôt que l'intervention de la seconde personne. C'est pourquoi la construction de μή avec la 2^e personne de l'impératif aoriste n'existe pas en grec.

Cette valeur spécifique de l'impératif présent ne se trouve guère dans les supplications et les prières adressées aux dieux. En effet, le locuteur n'est pas en position d'admettre que celui à qui il s'adresse va commencer immédiatement à réaliser l'action désirée. C'est pourquoi l'emploi de l'impératif aoriste est ici presque de rigueur.²⁸

12. L'emploi inceptif de l'infinitif du présent

L'emploi inceptif que nous venons de décrire se trouve également dans le cas de l'infinitif dépendant d'un verbe comme 'vouloir'. Voici un exemple tiré d'Hérodote (3, 118, 1-2):

Ἦθελε ἐς τὰ βασιλῆα ἐσελθῶν [part.aor.] χρηματίσασθαι τῷ βασιλεί· καὶ γὰρ δὴ καὶ ὁ νόμος οὕτω εἶχε, τοῖσι ἐπαναστάσι τῷ μάγῳ ἔσοδον εἶναι παρὰ βασιλέα ἀνευ ἀγγέλου, ... Οὐκ ὦν δὴ ὁ Ἰνταφρένης ἐδικαίου οὐδένα οἱ εἰσαγγεῖλαι, ἀλλ', ὅτι ἦν τῶν ἐπτά, ἐσιέναι [inf.prés.] ἦθελε. 'Intaphernès *voulait entrer* au palais pour y traiter d'affaires avec le roi; et en effet il était de règle que ceux qui s'étaient révoltés contre le mage eussent le droit d'entrer auprès du roi sans se faire annoncer, ... Intaphernès ne jugait donc pas que personne dût l'annoncer auparavant, mais, parce qu'il était l'un des sept (anciens révoltés), il *voulait entrer immédiatement*'.

La première phrase mentionne simplement l'intention d'Intaphernès: ce qu'il voulait, c'était ἐσελθῶν [part.aor.] ... χρηματίσασθαι [inf.aor.] ... 'après être entré ... traiter d'affaires ...'. La dernière phrase signale qu'Intaphernès voulait entrer *immédiatement*, c.-à-d. sans avoir été annoncé auparavant, fait expliqué par les phrases précédentes.

La valeur inceptive explique pourquoi l'emploi de l'infinitif *présent* est de rigueur dans des expressions comme ἤρχετο γράφειν 'il commençait à écrire', ὦρα ἦν γράφειν 'il était temps d'écrire', ἔτοιμος ἦν γράφειν 'il était prêt à écrire'. De même, ἔμελλε γράφειν [inf.prés.] 'il allait *écrire immédiatement*', 'il était *sur le point d'écrire*' s'oppose à ἔμελλε γράψειν [inf.fut.] 'il allait (devait) *écrire* (plus tard)'.²⁹

13. La valeur complexe du parfait: achèvement + état

Passons maintenant au thème du parfait. Nous avons vu que sa valeur est complexe (§3-4): il exprime en principe à la fois l'achèvement de l'action et la présence de l'état qui en résulte. Ainsi, ἡ θύρα κέκλησται [ind.prim.parf.] répond à allemand *die Tür ist geschlossen*. La phrase exprime qu'au moment de la parole, la porte est dans l'état d'être fermée. Dans le cas où cet état ne subsiste plus, l'emploi de l'aoriste est obligatoire: ἡ θύρα ἐκλήσθη [ind.sec.aor.] répond à *die Tür ist geschlossen worden* ou ... *wurde geschlossen*. De la même façon, εἶληφε [ind.prim.parf.] τὰ χρήματα répond à anglais *he has got the money*. La phrase exprime que le sujet est dans l'état d'avoir l'argent. Si l'état ne subsiste plus, l'aoriste est obligatoire: ἔλαβε [ind.sec.aor.] τὰ χρήματα, répondant à *he got the money*.

Bien entendu, il arrive que les deux expressions aient la même valeur *pratique*. Ainsi, la question 'pourquoi *es-tu venu (ici)?*' peut être exprimée par τί ἦλθες [ind.sec.aor.] ou par τί ἐλήλυθας [ind.prim.parf.], du moins lorsque le locuteur demande la raison de la venue de la seconde personne dont le résultat est sa présence actuelle (Ruijgh 1985a: 7). Dans une telle situation, il s'agit le plus souvent d'une action du *passé récent*. Ainsi, ἀφίκεται [ind.prim.parf.] peut répondre à *il vient d'arriver*.³⁰ Les grammairiens anciens ont même cru que c'est là la valeur fondamentale de la forme du parfait: πεποίηκα [ind.prim.parf.] équivaldrait à ἐποίησα [ind.sec.aor.] ἄρτι 'j'ai fait *tout à l'heure*'.³¹ Comme la forme de l'aoriste peut s'employer tant dans le cas du passé récent que dans celui du passé éloigné, ils l'ont désigné par le terme de *παρωχημένος ἄοριστος* 'passé indéterminé'.

En réalité, la valeur fondamentale du thème du parfait consiste à exprimer l'état résultant de l'achèvement de l'action. Ainsi, le grec ancien connaît la périphrase qui consiste à employer le verbe εἶ- 'être' avec le participe parfait: type ἡ θύρα *κέκλησμένη ἐστί* 'la porte *est fermée*'. Dans cette expression, la valeur statique est soulignée. Pour les autres thèmes temporels, une telle périphrase ne se trouve guère, du moins en grec homérique et classique (Aerts 1965).

La valeur complexe du parfait apparaît aussi dans l'emploi des compléments. Ainsi, les compléments de temps concernent tantôt l'état tantôt l'action *achevée*. Homère présente d'une part οἱ νῦν γενέσθαι [ind.prim.parf.] 'ceux qui *sont nés et existent maintenant*' (ω 84), d'autre part ἡ γὰρ μιν πρόσθεν ὤπωπα 'car je *l'ai vu autrefois*' (ρ 371). Dans le dernier exemple, l'état d'avoir vu consiste à *avoir l'expérience* d'avoir vu.³²

14. Le parfait transitif

Dans le grec le plus ancien, c.-à-d. dans les textes mycéniens et chez Homère, l'emploi du parfait est beaucoup plus restreint qu'à l'époque postérieure. En principe, il sert à exprimer l'état *directement observable du sujet*. Le plus souvent, il s'agit donc d'un verbe passif ou intransitif comme δέδεται 'il est lié', τέθηκε 'il est mort', ἐλήλυθε 'il est venu'.³³ L'emploi du parfait d'un verbe transitif avec un complément direct est encore peu fréquent chez Homère. En voici un exemple (P 542): αἰματώεις ὡς τίς τε λέων κατὰ ταῦρον ἐδηδώς [part.parf.actif] 'couvert de sang, comme un lion *qui vient de dévorer* un taureau'. L'existence d'un parfait actif du verbe ἐδ- 'manger'

n'étonne pas: l'état résultatif du sujet est directement observable: le lion est repu et les traces de son activité sont encore visibles.³⁴

Dans le grec postérieur, en revanche, tout verbe transitif dispose en principe d'un parfait à valeur active, bien que l'emploi du parfait à valeur passive reste le plus fréquent. Ainsi, on trouve désormais la forme récente du parfait actif δέδεκε 'il a lié' à côté de la forme ancienne du parfait passif δέδεται 'il est lié', qui était le seul à être attesté en mycénien et chez Homère. La valeur du nouveau parfait transitif est fort complexe. Prenons une phrase comme Ἀλκιβιάδης [nom.] ἀπόλωλεκε [ind.prim.parf. actif] τὴν πόλιν [acc.] 'Alcibiade a ruiné la cité'. Cette phrase exprime à la fois: (1) l'état directement observable du complément direct: ἡ πόλις [nom.] ἀπόλωλε [ind.prim.parf. passif] 'la cité est ruinée'; (2) l'achèvement de l'action du sujet: Ἀλκιβιάδης ἀπόλεσε [ind.sec.aor.] τὴν πόλιν 'Alcibiade a ruiné la cité'; (3) l'état *non* directement observable du sujet qui consiste à être responsable de l'état résultatif: Ἀλκιβιάδης αἰτιῶς ἔστω 'Alcibiade est responsable'. Au point de vue morphologique, la forme ἀπ-ολώλε-κε combine le thème όλωλ- de l'ancien parfait à valeur passive avec l'élément όλε- de l'aoriste actif. On pourrait donc paraphraser 'Alcibiade est responsable (coupable) de la ruine de la cité qu'il a produite'.³⁵ Bien entendu, la responsabilité peut aussi impliquer un *mérite* du sujet.

Il faut ajouter que de telles phrases impliquent normalement que le sujet existe encore au moment donné. Ainsi, la phrase que nous venons d'interpréter implique qu'Alcibiade est encore vivant. Il y a une exception importante: comme les poètes et les prosateurs se survivent dans leurs oeuvres, on peut dire Ὅμηρος ἔιρηκε [ind.prim.parf. actif] 'Homère a dit', même si le poète est mort depuis longtemps.³⁶

15. L'emploi totalisant-itératif du parfait

Passons enfin à un emploi spécifique du parfait qui est négligé dans la plupart des manuels de grammaire grecque.³⁷ En voici d'abord un exemple tiré de Platon (*Ion* 541c): Ὁν Ἀθηναῖοι πολλάκις ἐαυτῶν στρατηγὸν ἤρησαν [ind.prim.parf.]. 'Celui que les Athéniens *ont souvent choisi* pour général ...'. L'adverbe πολλάκις 'beaucoup de fois' indique qu'il s'agit d'une *série itérative* de choix. Ici, la phrase n'implique pas qu'au moment présent, la personne en question, un certain Apollodore, soit général des Athéniens. Ce qu'elle implique, c'est qu'Apollodore est *souvent* leur général. L'état résultatif consiste donc dans l'attitude *stable* des Athéniens à l'égard d'Apollodore et dans la qualité *durable* d'Apollodore. La constatation de cet état repose sur la constatation de la série itérative des actes de choix dans sa *totalité, jusqu'au moment présent*. En effet, cette expression implique que le *demier* acte de la série appartient au passé récent. Comparer l'expression anglaise du type *I have shopped there for years*.³⁸ Nous désignons cet emploi par le terme de *totalisant-itératif*: le parfait exprime ici la totalité d'une série itérative qui s'étend jusqu'au moment donné. Ainsi, le grec classique exprime la notion du 'passé' par l'expression τὰ γεγονότα [part.parf.plur. neutre] 'tout ce qui s'est passé jusqu'ici' ou 'tout ce qui s'était passé jusqu'alors'. Comparer la phrase suivante d'Euripide (*Troyennes* 468): πάσχω [ind.prim.prés.] τε καὶ πέπονθα [ind.prim.parf.] καὶ πέσομαι [ind.prim.fut.] 'je souffre et j'ai souffert jusqu'ici et je souffrirai encore'.³⁹

Cette nuance du parfait se trouve déjà chez Homère. Ainsi le thème du parfait πέπονθα du verbe πάσχειν 'souffrir' se trouve 7 fois chez Homère, toujours avec la nuance en question. En principe, πέπονθα peut signifier 'je suis victime d'une souffrance que j'ai subie', mais l'état d'être victime est évidemment plus accusé lorsqu'il résulte de toute une série de souffrances qui s'étend jusqu'au moment donné. Le caractère itératif est le plus souvent indiqué par une expression de nombre: κακά πολλά πέπονθα 'j'ai souffert jusqu'ici *beaucoup* de maux' (ρ 284), ὅσσην ἐπεπόνθει [ind.sec.] 'tout ce qu'il avait souffert jusqu'alors' (ν 92). Dans le cas où la série itérative s'est terminée *bien avant* le moment donné, Homère emploie l'aoriste. Ainsi, quand le vieillard Phénix rappelle au jeune homme Achille les nombreuses souffrances qu'il a subies jadis en s'occupant de l'enfant Achille, il emploie l'aoriste: ὡς ἐπὶ σοὶ μᾶλλον πῶλλον ἔπαθον [ind.sec.aor.] 'ainsi, pour toi, *j'ai souffert (jadis) de très nombreux (maux)*' (I 492). Ici, la série de souffrances appartient tout entière au passé éloigné.

De la même façon, le parfait du verbe ἐργ- 'faire (une action)', à savoir ἔοργα, exprime chez Homère normalement une série itérative d'actes qui s'étend jusqu'au moment donné. Exemple: ... μυρίε Ὀδυσσεύς ἐσθλά ἔοργε ... νῦν δὲ τόδε μέγ' ἄριστον ... ἔρεξεν [ind.sec.aor.] 'Ulysse *a fait d'innombrables* bonnes actions jusqu'ici ...; mais maintenant, *il a fait* cette action-ci qui est de loin la meilleure ...' (B 272-4). Le locuteur emploie le parfait ἔοργε pour la totalité de la série itérative de bonnes actions, mais l'aoriste ἔρεξεν pour l'action unique toute récente qui est la dernière de la série.

Cette opposition entre le parfait et l'aoriste se retrouve dans le grec postérieur. Voici un passage de Platon (*Charmide* 175b): Καίτοι πολλά γε ἔυνεχωρήκαμεν [ind.prim.parf.] οὐ ξυμβαίνονθ' ἡμῖν ἐν τῷ λόγῳ. Καὶ γὰρ ...ἔυνεχωρήσαμεν [ind.sec.aor.] ... καὶ ...ἔυνεχωρήσαμεν ... 'Cependant *nous avons concédé jusqu'ici beaucoup* de choses qui ne s'accordaient pas avec notre raisonnement. Car *nous avons concédé* que ...; et *nous avons concédé* que ...'. Le locuteur emploie d'abord le parfait pour la totalité de la série itérative des concessions, puis l'aoriste pour chaque acte de concession qui fait partie de la série.⁴⁰

Retournons maintenant à l'emploi de ἔοργα 'j'ai fait jusqu'ici' chez Homère. Nous rappelons que chez Homère, l'emploi du parfait transitif est peu fréquent: normalement, le parfait exprime l'état résultant du procès que le sujet a *subi*. Bien entendu, on pourrait dire que dans le cas de ἔοργα, l'état exprimé par le parfait consiste dans la qualité durable de 'bienfaiteur' ou de 'malfaiteur', qualité qu'on peut déduire précisément du fait que le sujet a réalisé *toute une série* de bonnes ou de mauvaises actions. Néanmoins, cet emploi étonne pour une forme de parfait *ancienne*: au point de vue morphologique, ἔοργα < *wé-worg-a 'j'ai fait' se compare à γέ-γον-α 'je suis né'. Il nous paraît probable que dans la perspective diachronique, la valeur préhistorique de *wé-worg-a ait été celle d'un verbe *fréquentatif*. N'oublions pas que la valeur originelle du *redoublement* morphologique doit avoir été la *pluralité* de l'action. Homère conserve des traces de cette valeur originelle dans quelques verbes signifiant 'frapper' ou 'produire des bruits'. Ainsi, le participe parfait πεπληγώς signifie 'donnant une *série* de coups', κεκληγώς 'poussant une *série* de cris'.

Dans deux exemples homériques, ἔοργα est accompagné de la négation οὐ. En voici l'un: κείνος δ' οὐ ποτε πάμπαν ἀτάσθαλον ἀνδρα ἐώργει [ind.sec.parf.] 'lui *n'avait jamais* fait de *toute sa vie* aucun mal à un homme' (δ 693). Pénélope parle d'Ulysse, disparu depuis vingt années, ce qui explique le plus-que-parfait, le moment donné étant le moment de la disparition d'Ulysse. D'après Pénélope, la plupart des rois ont l'habitude

de faire du mal à ceux qu'ils haïssent, mais Ulysse ne l'avait fait *en aucun temps*. La négation sert donc à nier pour Ulysse l'existence de la série itérative en question. Cela revient à dire que l'absence de l'action en question a *continué jusqu'à* la disparition d'Ulysse.⁴¹

16. L'emploi totalisant-continuatif du parfait; conclusion

Cela nous amène à l'emploi *totalisant-continuatif* du parfait. En voici un exemple tiré de Thucydide (1, 5, 3): τό τε σιδηροφορεῖσθαι τούτους τοῖς ἡπειρώταις ἀπὸ τῆς παλαιᾶς ληστείας ἔμμεμένηκεν 'et ainsi l'usage de porter les armes *a toujours persisté jusqu'ici* chez ces peuples continentaux (dans le Nord-Ouest) à partir de l'ancienne piraterie'. Dans ce qui précède, Thucydide emploie les expressions ἔτι καὶ νῦν 'maintenant encore' et μέχρι τοῦδε 'jusqu'ici' en parlant des usages en question. Il aurait pu dire simplement que l'usage ἔμμενει [ind.prim.prés.] 'persiste'. En employant le parfait, il souligne le fait que l'usage, au lieu de disparaître à tel ou tel temps du passé comme chez les Athéniens et plus tard chez d'autres peuples grecs, a toujours persisté chez ceux du Nord-Ouest. Comparer l'expression anglaise du type *I have lived here for years* ou *I have been waiting for hours* (Comrie 1976: 60).

Il importe d'observer que le parfait d'un verbe essentiellement *duratif* comme ἔμμενειν 'rester dans, persister' ne peut guère exprimer l'état résultant de l'achèvement, donc *postérieur à la fin* de l'action exprimée par le thème verbal: la notion d'achèvement ne s'applique essentiellement qu'à une action *terminative* ou *ponctuelle*. Lorsque le thème verbal exprime lui-même un état, le thème du parfait exprime qu'à un moment donné, il y a un état *profondément enraciné*, qui est pour ainsi dire le résultat du prolongement continu de l'état jusqu'au moment donné. Ainsi, Démosthène (21, 221) emploie l'expression θαρρεῖ [ind.prim.prés.] καὶ πεπίστευκε [ind.prim.parf.] 'il a de l'assurance et *il a toujours eu confiance jusqu'ici*' (noter la *gradation*). Ailleurs, Démosthène se sert de l'expression quasi-synonyme (19,3) θαρρῶ καὶ πάνν πιστεύω [ind.prim.prés.] 'j'ai de l'assurance et j'ai une confiance *totale*'. L'adverbe πάνν 'tout à fait' semble donc répondre à la nuance exprimée par le parfait du verbe duratif. Souvent, on la désigne par le terme de *parfait intensif*. Les formes de parfait ἔμμεμένηκε et πεπίστευκε sont récentes. Cependant, cet emploi du parfait est déjà bien attesté chez Homère, qui emploie la vieille forme de parfait ἔολπα < *wé-wolp-a 'j'ai la pensée fixe que' à côté du présent ἔλπομαι 'je m'attends à ce que, j'espère que, je pense que'.⁴²

Bien entendu, nous avons dû laisser de côté beaucoup de problèmes relatifs à l'emploi des formes verbales en grec ancien. Néanmoins, nous espérons que l'examen de l'emploi 'inceptif' du thème du présent et celui de l'emploi 'totalisant' du thème du parfait ont confirmé que les valeurs fondamentales de ces formes sont bien d'ordre temporel. Les grammairiens grecs de l'Antiquité avaient raison en disant que les thèmes temporels expriment χρόνος 'temps'.

Notes

1. Les renvois à Aristote et aux grammairiens grecs anciens se trouvent dans Ruijgh 1985a. Dans cet article-là, nous avons présenté nos idées sur les valeurs temporelles du verbe grec de façon plus détaillée.
2. Nous employons le terme d' 'action' au sens large: action, procès, état.
3. Les grammairiens anciens désignent cette valeur par des termes comme παρατατικός 'qui s'étend en dépassant (un point donné)' ou ἀτελής 'inachevé'.
4. Pour des raisons pratiques, nous préférons le terme *confectif* au terme *perfectif*. Dans les grammaires grecques, le terme *perfectif* s'emploie souvent pour désigner uniquement la valeur du thème du *parfait*. Les grammairiens anciens emploient des termes comme συντελής 'achevé' tant pour la valeur du thème du parfait que pour celle de l'aoriste.
5. Voir Basset 1979, et Ruijgh 1985b.
6. Exemple: β 388 δύσεται [ind.sec.fut.] ... ἥελιος 'le soleil *allait se coucher*'. Voir Ruijgh 1985b: 322 note 6.
7. Ainsi, les propositions finales appartiennent au style indirect au sens large, parce qu'elles expriment la pensée de l'agent qui figure dans la proposition principale. En effet, les propositions finales ont des traits syntaxiques qui s'accordent avec ceux des propositions du style indirect proprement dit; voir n. 21.
8. Lorsque l'action de 'dire' (etc.) appartient au passé, la subordonnée du style indirect admet deux constructions: maintien du mode du style direct, ou bien substitution de l'optatif au mode du style direct, c.-à-d. à l'indicatif et au subjonctif. Dans cet emploi, l'optatif (opt. *oblique*) exprime explicitement l'*absence d'actualité* (§8). Exemple: εἶπεν ὅτι πίοντο [opt.fut.] 'il a dit qu'*il boirait*'.
9. L'ind.prim. du présent peut fonctionner comme 'présent historique' dans des textes narratifs. Dans cet emploi, il sert en principe à marquer les événements les plus importants du récit. Le narrateur adopte, pour ainsi dire, le rôle d'un témoin oculaire qui fait un reportage direct. Voir Ruijgh 1971: 265-266.
10. L'augment remonte probablement à un adverbe pronominal anaphorique à valeur 'là, alors' = 'à ce moment du passé' (néerlandais *toen*). Il est bien possible qu'en proto-indo-européen, cet adverbe ait marqué le 'passé consécutif' (type: *il entra ..., alors il but ..., alors il parla ...*).
11. Bien entendu, il s'agit d'une action que le locuteur *présente* isolément, c.-à-d. sans la placer dans une série d'actions cohérente.
12. Pour les détails voir Hettrich 1976, et Ruijgh 1979. - L'ind.sec. de l'aoriste peut s'employer également dans la description d'une série d'actions cohérente qui constitue une scène *itérative permanente*, c.-à-d. une scène qui se répète un nombre infini de fois pendant l'existence du monde. Vis-à-vis de l'emploi banal de l'ind.prim. du présent (emploi 'omni-temporel'), l'ind.sec. de l'aoriste y sert en principe à souligner le caractère soudain de l'événement en question ou le changement radical qu'il amène. Exemple:
Iliade Λ 175-176 (comparaison homérique: scène d'un lion qui tue une vache) τῆς δ'ἔξ ἀυχέν' ἔαξε [ind.sec.aor.] ... πρῶτον, ἔπειτα δέ θ' ἄλμα ... λαφύσσει [ind.prim.prés.] 'de cette (vache), *il casse* d'abord le cou ..., ensuite *il lape* le sang ...'. Cet emploi de l'ind.sec. de l'aoriste est bien compatible avec sa valeur fondamentale. L'antériorité de l'action de casser par rapport à celle de laper est

soulignée par l'adverbe *πρῶτον* 'd'abord' vis-à-vis de l'adverbe *ἔπειτα* 'ensuite'. En français, la traduction 'il a cassé d'abord ..., ensuite il se met à laper ...' serait acceptable. L'emploi en question est désigné par le terme d' 'aoriste gnomique' parce qu'il se trouve souvent dans des proverbes (*γνώμαι*). Pour les détails, voir Ruijgh 1971: 255-265.

13. L'emploi inceptif du thème du présent n'est possible que lorsque le thème verbal exprime une *activité* ou un *procès*. Lorsqu'il exprime un *état*, c'est précisément le thème de l'aoriste qui peut servir à exprimer le commencement de l'état (emploi *ingressif* de l'aoriste). Ainsi, dans le cas du verbe *ἔχειν* 'avoir', une forme comme *ἔσχε* [ind.sec.aor.] admet deux interprétations bien distinctes: 'il a eu' et 'il a reçu (obtenu)'. Dans la première, il s'agit de la *fin* de l'état, tandis que dans la seconde, il s'agit de l'*achèvement* de la réalisation, donc de la *réalisation complète* de l'état. Normalement, la situation ou le contexte détermine le choix entre les deux interprétations. Exemple: Hérodote 1, 98, 3 (les Mèdes viennent d'attribuer le pouvoir royal à Déiocès) ὁ δὲ ὡς *ἔσχε* [ind.sec.aor.] τὴν ἀρχήν, τοὺς Μήδους ἠνάγκασε ... 'lui, lorsqu'il eut obtenu le pouvoir, força les Mèdes ...'. Il est évident que l'action de la principale a lieu après l'avènement de Déiocès, non pas après la fin de son règne. Pour les détails, voir Ruijgh 1985a: 55-59.
14. Le thème du futur ne dispose pas d'un impératif, puisque ce mode à lui seul exprime déjà le trait 'futur'.
15. Le thème du futur ne dispose pas d'un subjonctif, de même qu'il ne dispose pas d'un impératif (n.14).
16. Bien entendu, les subordonnées temporelles *postérieures* (Stahl 1907: 444 sqq.), introduite par *πρὶν* 'avant que' ou *ἕως* 'jusqu'à ce que', expriment une action postérieure à celle de la principale. Ici encore, l'emploi du thème du futur est impossible. Cela s'explique par l'influence des subordonnées temporelles *prioriques*. Ainsi, une phrase comme οὐ πίεται πρὶν ἂν *δευπνήσῃ* [subj.aor.] 'il ne boira pas avant qu'il n'ait dîné' suggère l'idée 'seulement après qu'il aura dîné, il boira'. Pour des détails, voir Ruijgh 1985a: 52-55.
17. La particule *ἂν* du dialecte ionien-attique est issue de **κάν*, forme qui répond à éolien *κε(ν)* et à dorien *κα*. En effet, la séquence οὐ + **κάν* a pu être réinterprétée comme οὐκ + *ἂν*, parce que οὐκ est la forme antévocalique de la négation οὐ. La valeur originelle de *κε* était celle d'un adverbe pronominal anaphorique: 'là, alors' = 'à ce moment futur' (néerlandais *dan*). Comparer n.10. Chez Homère, *κε* peut encore accompagner le subjonctif (à modalité déclarative) ou l'indicatif futur dans une principale. Cette construction exprime que l'action future est *consécutives* par rapport à l'action future exprimée dans la phrase précédente et que sa réalisation éventuelle dépend de la réalisation éventuelle de cette action précédente. Exemple: *Illiade* Ξ 235 *πειθευ* ἔγῳ δὲ *κέ* τοι *εἰδέω* [subj.] *χάρην* ... 'obéis; alors (= le cas échéant) moi je t'en saurai gré ...'.
18. Dans l'emploi itératif-distributif du subjonctif, Homère omet le plus souvent la particule *κε* ou *ἂν*, tandis que dans l'emploi strictement 'futur', la particule ne fait que rarement défaut. Cela s'explique par la valeur originelle de *κε*: 'à ce moment futur' (voir n.17).
19. Le thème du futur dispose d'un optatif, mais cette forme s'emploie exclusivement dans l'expression du style indirect (voir n.8). Elle ne s'emploie pas dans l'expression du souhait ou du potentiel (cf. n. 14 et 15).

20. Pour exprimer la modalité *irréelle*, c.-à-d. la *possibilité perdue*, le grec se sert de l'indicatif secondaire accompagné de la particule *ἄν*: la possibilité existait dans le *passé* jusqu'au moment où elle s'est perdue. Ainsi, la période irréelle du type εἰ εἶλομεν [ind.sec.aor.] τὴν πόλιν, ἐνικήσομεν [ind.sec.aor.] ἄν 'si nous avions pris la ville, (alors) nous aurions vaincu' fait pendant à la période potentielle du type εἰ ἔλομεν [opt.aor.] τὴν πόλιν, νικήσομεν [opt.aor.] ἄν 'au cas où nous prendrions la ville, (alors) nous vaincrons'. Le grec préhistorique employait l'optatif non seulement dans l'expression du potentiel mais aussi dans celle de l'irréel. Chez Homère, on trouve encore des traces de cet emploi préhistorique; cf. Chantraine 1953: 220-221 et 226-227.
21. Comme la subordonnée finale appartient au style indirect au sens large (voir n.8), le grec classique peut maintenir le subjonctif dans la subordonnée même si la principale exprime une action du passé: type ἀνέστη ἵνα πῖη [subj.aor.] 'il se leva pour qu'il bût'.
22. L'absence de *ἄν* dans l'expression du passé s'explique par la valeur originelle de la particule: 'à ce moment futur' (voir n. 17 et 18).
23. Il arrive que le participe exprime le 'temps absolu'. Lorsqu'il exprime le 'temps relatif', il arrive souvent qu'il adopte la modalité du verbe principal. Voir Oguse 1962.
24. Voir Ruijgh 1985a: 19, et surtout Kurzová 1968. Kurzová désigne la valeur primaire de l'infinitif par le terme de *dynamique*: l'action est ἐν δυνάμει 'en puissance'. Comme la valeur fondamentale de l'infinitif comporte déjà le trait 'postérieur', on ne trouve pas l'infinitif du futur dans l'emploi dynamique (cf. n.14, 15 et 19). L'infinitif du futur ne se rencontre donc que dans l'emploi déclaratif.
25. L'affinité sémantique entre l'infinitif dynamique (n.24) et l'infinitif déclaratif est évidente. Noter qu'en français, le verbe *vouloir* fonctionne parfois comme quasi-équivalent de *prétendre*, *dire*, *croire*; exemple: *Descartes a voulu que les animaux fussent des machines*.
26. Nous pensons aux manuels de Kühner-Gerth, Schwyzer-Debrunner, Goodwin, Stahl, Chantraine (1953). L'emploi que nous avons désigné par le terme d'*inceptif* (Ruijgh 1985a) est correctement décrit dans l'ouvrage de Bakker (1966: 43-66) sur l'impératif.
27. Du moins, nous n'en avons pas trouvé d'exemple dans les oeuvres d'un grand nombre d'auteurs (Démosthène, Platon, etc.).
28. D'autre part, l'impératif présent s'emploie très fréquemment lorsqu'un maître s'adresse à son serviteur, du moins dans le cas d'un ordre dont le contenu est familier au serviteur (Ruijgh 1985a: 37-38).
29. On trouve même le type ἐμελλε γράψαι [inf.aor.] 'il devait écrire un jour (tôt ou tard)'. Voir Ruijgh 1985a: 48-51, et 1985b: 327-329.
30. Comparer l'emploi parallèle du parfait anglais: *perfect of recent past* (Comrie 1976: 60-61).
31. Cela a séduit les grammairiens anciens à attribuer au plus-que-parfait la valeur de *passé éloigné*: ἐπεποιήκειν [ind.sec.parf.] équivaudrait à ἐποίησα πάλαι 'j'ai (avais) fait il y a longtemps'. Beaucoup plus tard, le savant byzantin Planude (XIII^e siècle) donne une description moins incorrecte de la valeur du plus-que-parfait: passé récent par rapport à un moment du passé. Voir Ruijgh 1985a: 7-8 (note 15).

32. Comparer l'emploi parallèle du parfait anglais: *experiential perfect* (Comrie 1976: 58-59). - Cf. φ 94-95 (Antinoüs parle d'Ulysse) ἐγὼ δὲ μιν αὐτὸς ὤπωπα· καὶ γὰρ μνήμων εἰμί, πάϊς δ' ἔτι νήμιος ἦα 'moi je l'ai vu moi-même; car je suis dans l'état de m'en souvenir; cependant, j'étais encore un enfant en bas âge'. La phrase à εἰμι 'je suis' se rapporte à l'état présent d'avoir l'expérience d'avoir vu Ulysse, tandis que la phrase à ἦα 'j'étais' se rapporte à l'action de voir qui appartient au passé.
33. Voir Chantraine 1927 et 1967. Ainsi, Homère emploie une fois (μ 423) la forme τετευχώς, nom.sing.masc. du participe parfait à désinence 'active' du verbe τεύχειν 'fabriquer'. La valeur de cette forme est passive ('fabriqué'), c.-à-d. que la forme est synonyme de la forme passive usuelle τετυγμένος. En mycénien, on ne trouve que la forme dite 'active' *the-thukh-wóh-a* [nom.plur.ntr.] (graphie *te-tu-ko-wo-a₂*) pour exprimer cette valeur passive.
34. C'est seulement pour de tels verbes qu'Homère connaît l'opposition entre le parfait à valeur active et celui à valeur passive. Cf. χ 56 ὄσσα ... ἐδήδοται [ind. prim.parf.pass.] 'tout ce qui ... a été mangé'.
35. Pour des exemples tirés des textes littéraires, voir Chantraine 1927: 165-171.
36. Voir les exemples fournis par Chantraine (1927:153). Cf. Comrie 1976: 59-60 (note 4).
37. L'emploi 'totalisant' du parfait est correctement décrit par Mayser 1926: 177, 179-180, 192, 197-198. Il le désigne par le terme de 'complexif'. Voici sa description pour l'ind.prim. du parfait: *eine Summe kontinuierlicher Handlungen, die ihren Endpunkt in der Gegenwart haben*. Dans sa traduction de phrases figurant sur des papyrus, il emploie à juste titre des expressions comme *bisher, bis jetzt*. Chantraine (1927: 13,156) donne une description plus vague: 'un ensemble d'actions qui aboutissent à un état présent', 'le parfait insiste sur le résultat actuel et peut englober tous les éléments d'une énumération'.
38. Comrie (1970: 60) désigne cet emploi par l'expression *perfect of persistent situation*.
39. Voici un autre exemple, cité par Chantraine (1927:189): σὲ ... φθόνος φθισκὸν πεποίηκε [ind.prim.parf.] καὶ ποιήσει [ind.prim.fut.] καὶ ποιεῖ [ind.prim.prés.] 'toi, la jalousie t'a rendu malade jusqu'ici et elle te rendra (malade) et elle te rend (malade)'.
40. Voici un autre exemple (Platon, *République* 507a): τὰ τ' ἐν τοῖς πρόσθεν ῥηθέντα [part.aor.pass.] καὶ ἄλλοτε ἤδη πολλάκις εἰρημμένα [part.parf.pass.] 'ce qui a été dit dans ce qui précède et (ce qui) a été dit déjà beaucoup de fois dans d'autres occasions jusqu'ici'. Par l'expression τὰ ἐν τοῖς πρόσθεν ῥηθέντα, Socrate renvoie à la mention de la théorie des idées dans une phase précédente du dialogue sur la république. L'expression comportant le parfait εἰρημμένα se rapporte au fait que cette théorie a déjà (ἤδη) été mentionnée beaucoup de fois (πολλάκις) dans d'autres occasions (ἄλλοτε).
41. De même, le parfait néerlandais accompagné de la négation peut servir à nier une série d'actions itérative. Voir Th.A.J.M. Janssen, 'Het temporele systeem van het Nederlands: drie tijden en twee tijdscomposities', dans: *Glott* 6 (1983), 45-104, surtout 89.
42. Vis-à-vis du présent καλεῖται 'il s'appelle', le parfait κέκληται signifie 'il s'appelle pour toujours', c.-à-d. que le nom du sujet ne disparaîtra jamais. Voir Ruijgh

1976. Cette valeur spécifique s'explique bien à partir de la notion de l'état 'profondément enraciné'.

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THE PROXIMAL / DISTAL TEMPORAL AXIS: THE MEANING AND USE OF *THEN* IN DISCOURSE

Deborah Schiffrin

1. Introduction

Many deictic expressions reflect an opposition between proximity to, and distance from, the locus (usually egocentric) of a speech event. This opposition differentiates pairs of words such as *here / there*, *we / they*, *come / go*, and *now / then*: the former word in each pair represents the proximal end, and the latter word the distal end, of a proximal/distal axis. Despite the stability of this opposition, the locations, people, or times counting as proximal or distal vary in ways that are inherently subjective - simply because speakers can easily expand or contract the deictic field. For example, I might use the utterance *We are here now* in either an expanded way to mean 'Human beings are on earth during this millenium' of a contracted way to mean 'You and I are in my house at 2 P.M. on Friday, May 4.'

In this paper, I focus on the meaning of the word *then* and show how its uses in discourse are extensions of its basic deictic meaning 'not at this time'. Analyzing the use of *then* is complicated by the fact that the subjectivity of the proximal/distal axis affects not only the propositional meanings of *then* (how it represents temporal properties of events), but also its textual uses (how it indicates interpretive and structural relations among propositions within texts) and its social and expressive uses (how it displays speaker orientation toward what is being said and to whom it is being said; Clark 1974, Fleischman 1989). Despite this range of uses, I will argue that *then* maintains its distal meaning, and thus, that the proximal/distal distinction is the basis for its distribution not just when it has a temporal function, but when it has textual, social, and expressive functions as well.¹

2. The temporal meaning of *then*

In this section, I show that *then* has both deictic (2.1.) and anaphoric (2.2.) temporal meaning. Although deictics are said to anchor an utterance to a world external to talk (the non-linguistic world called 'context'), and anaphors to a world internal to talk (the linguistic world called 'text'), temporal expressions often seem to disregard the distinction between context and text, and thus, the distinction between deixis and anaphora. As Reichenbach (1947) and a number of more recent analysts (Hinrichs 1988, Kamp and Rohrer 1983, Nerbonne 1986, Partee 1973, 1984, Webber 1988) show, the reference time of a reported event (the time in relation to which the event is located) may be understood either contextually (as speaking time, i.e. the time at which an utterance is produced) or textually (as a point or period in

time established in a prior text). Thus, the deictic meaning of *then* is that in which the reference time of an event is established in the prior text.

2.1. The deictic meaning of *then*

Then has a distal deictic meaning that contrasts with the proximal meaning of *now* (Schiffrin 1987, 1990). *Then* conveys that an event is more distant from speaking time than one marked by *now*, i.e. an event does not overlap with the time of utterance production. Put most succinctly, the deictic meaning of *then* is 'not at this time.'² As we see in a moment, however, this deictic meaning is complicated simply because 'not at this time' may be understood as movement away from 'this time' in one of two ways, i.e. in two different directions: either backward from the present ('prior to ST') or forward from the present ('posterior to ST').

The easiest way to illustrate the distal meaning of *then* is with utterances that are relatively isolated from their surrounding text. (As we see in a moment, utterances that are embedded in texts are more difficult to analyze simply because the textual location of the reference time allows *then* to have anaphoric meaning.) Imagine that the questions in (1) are asked during an interview (such that they could occur relatively isolated from other questions).

- (1a) Were you married then?
- (1b) Are you married now?
- (1c) Will you be married then?

We would typically convey that an event such as 'be married' occurred prior to speaking time by using the past tense (as in (1a)) and posterior to speaking time with a future marker (as in (1c)). Note, critically, that *then* can be used with events that are either prior (1a) or posterior (1b) to speaking time. Not surprisingly, we would convey that an event overlaps with speaking time by using the present tense, and it is here that *now* would be used (as in (1b)). However, we cannot ask a question such as (1d) because two conflicting times for 'be married' would be conveyed.

- (1d) *Are you married then?

In (1d), the present tense would have a proximal interpretation in relation to speaking time - an interpretation that would conflict with the distal interpretation of *then*.³

Another type of example illustrating deictic *then* is when *then* refers to situationally accessible (contextual) reference times that replace speaking time as the temporal locus of the deictic field. In (2), for example, my son (two and a half years old at the time) was looking at a picture of himself as one year old:

- (2) I was laughing then.

I understood *then* to refer to the time period portrayed in the photograph - thus,

to index an event ('I laugh') to a prior time period in a contextually evoked domain (note, one defined as prior to speaking time). A similar example is from Nunberg (1978: 33):

- (3) I was just a kid then
[while pointing to a 1962 Chevrolet]

In (3), *then* refers to the time period during which 1962 Chevrolets were driven. In (3) and (4), events are understood to overlap with a prior time period evoked by an entity in the context - a photograph, a car. Note, however, that the speaker has to assume a joint focus of (perhaps visible) attention, i.e. a high degree of situational salience (cf. Levinson's (1983: 65) notion of gestural deixis). Without such an assumption, the reference point of *then* would have to be textually based, i.e. as in *I was laughing when that picture was taken* or *I was just a kid when 1962 Chevrolets were driven*.

In sum, *then* has the deictic distal meaning of 'not at this time'. This distal meaning has two variants, simply because motion away from 'this time' (so far considered as speaking time) can be interpreted in one of two directions: motion backward in time (prior) or motion forward in time (posterior). When utterances occur within texts - as they typically do - the location of the time to which *then* indexes a reported event is often displayed in the text. It is this textual dependence, more specifically, these anaphoric meanings, that we will examine in the next section.

2.2. The anaphoric meanings of *then*

Once we consider *then* clauses within texts, it becomes much harder to establish the meaning of *then* as solely deictic. This tendency - for temporal expressions to be anaphoric - has often been noted (Hinrichs 1986, Kamp and Rohrer 1983, Nerbonne 1986, Partee 1973, 1984, Webber 1988). Briefly, what such analyses assume (in line with Reichenbach (1947)) is that a reference time can be located not in relation to speaking time, but as a point of time established in a text. Thus, the anaphoric meanings of *then* to be described can be seen as semantic dependencies between *then* in S2 and a tense morpheme or other temporal marker in S1; this dependency makes the interpretation of the time of E2 (an event bound by *then* in S2) dependent on an interpretation of E1 (an event bound by temporal markers in S1).

2.2.1. Local uses of *then*

In this section, I describe two different anaphoric meanings of *then* that can be found at a local level of discourse (between closely positioned propositions that are understood to occupy the same 'level' of a discourse structure). I will do so by speaking of relationships between *events*. This is largely for convenience:

I'm using 'event' as a cover term for different kinds of reported situations. I will later modify this to speak of reported occurrences, and to differentiate events from states and processes. I'll also abbreviate events as *E* and differentiate *E1* from *E2* - the numbers indicating order of presentation in text.

Consider, first, that *E2* may be understood to follow *E1*. Let us call this a *successive* meaning, i.e. 'E2 after E1'. (4) illustrates.

- (4) IVee: (a) But I lived - I moved there when I was four years old.
 IVer: Ah, to, ten thirteen.
 IVee: (b) Ten thirteen,
 (c) and then I uh lived there until I was sixteen.
 (d) And then we moved to Carle Street.
 (e) And then we moved back.

The events in clauses (c), (d) and (e) are understood as separate, non-overlapping, completed events that are ordered successively in time.⁴

The second anaphoric meaning of *then* is that *E2* overlaps with *E1*, i.e. 'E2 with E1'. (5) illustrates.

- (5) IVer: (a) Um, now you say you used to live around here uh when they were still sellin' fish, in the street.
 IVee: (b) Well, that's a good many years ago.
 I was only a little boy then.

The events in lines (a) and (b) establish a reference time during which the event in (c) is understood to occur, i.e. the speaker 'was a little boy' during the time period established in the prior text.

Note that the two anaphoric meanings of *then* ('E2 after E1' and 'E2 with E1') are clearly differentiated by clause position. Table 1 shows this difference.

Table 1. *Then*, clause position, and anaphoric meaning

	INITIAL POSITION	FINAL POSITION	TOTAL
'E2 AFTER E1'	61	0	61
'E2 WITH E1'	6	18	24
TOTAL	67	18	85

As Table 1 shows, all the successive understandings of *then* in my data are clause initial (100% of the 61 cases), and 75% of the overlapping understandings were clause final (18/24).

Let me use a hypothetical example to underline the importance of clause position, and also, to begin to explain the 6 exceptions to the association between clause final position and overlapping meaning (the 6 cases of clause initial *then* with 'E2 with E1' meaning). (6a) and (6b) are the same two events in the same order in discourse; all that differs is the location of *then*.

- (6) E1 She got really tired last night.
 (a) E2 Then she complained about her job.
 (b) E3 She complained about her job then.

(6a) with initial *then* has a successive interpretation ('E2 after E1'); (6b) with final *then* has an overlapping interpretation ('E2 with E1'). Note, however, that if initial *then* in (6a) had contrastive stress, our interpretation of the temporal relationship between E1 and E2 would shift:

- (6c) E1 She got really tired last night.
 E2 *Then* she complained about her job.

Just as we do with final *then*, we would understand in (6c) that 'she complained about her job' occurs during the period of time when 'she got really tired'.

Although contrastive stress clearly seems to make an interpretive difference, I found only one such example out of the 6 cases of initial *then* with 'E2 with E1' meaning in my data. The other five examples, however, suggested a broader explanation that could incorporate the use of contrastive stress: all 5 were embedded in discourse level contrasts between now and then: more specifically, a cluster of events ('E2 with E1') whose reference time is established by E1 contrasted with a more proximal time period. Thus, what seems to unite the 6 cases of clause initial *then* with 'E2 with E1' meaning is a higher level temporal contrast. (7) from my data illustrates. Prior to (7), my IVee and I had been comparing the reactions of infants and children to the beach; she had been describing her infant grandsons, and I, my infant nephew.

- (7) (a) And he had been on the beach last summer,
 (b) y'know when he was about two months, like you - your other grandson,
 (c) And then he just slept in his carriage.

Despite initial *then*, we interpret the two events 'he was two months old' and 'he slept' as overlapping in time; we do not interpret the baby's sleeping as occurring *after* he was two. But, as I noted earlier, (7) is part of a larger contrast between infants and children, such that this topic allows the entire time period in which E2 occurs (*last summer, when he was about two months old*) to be understood as a contrast with a more proximal time period. We might thus say that initial *then* with overlapping meaning leads back to the reference time established through E1 to contrast the cluster of events ('E2 with E1') with a more proximal time period. Thus, initial *then* with 'E2 with E1' meaning has a contrastive function: it leads back to the reference time established through E1 to contrast the cluster of events ('E2 with E1') to a different (more proximal) time period.

We have now described two anaphoric meanings for *then* - 'E2 after E1' and 'E2 with E1'. We have also seen that the typical clause position of *then* with these meanings differs: initial position is generally reserved for successive meaning and final position for overlapping meaning.

Note that, so far, we have been speaking rather casually of events, and I have been using the term 'event' to refer to all sorts of situations without considering

differences in what is usually called their aspectual meaning, i.e. the internal composition and external contour of a reported situation. We have also been assuming that it is *then* itself that has meaning - the meanings of temporal succession or temporal overlap. Let us now address these two issues through several quantitative comparisons between *E1 THEN E2* and *E1 E2 THEN* sequences.

Let us begin by making an initial distinction between events and states. Following Lyons (1977: 707), I will consider events to be "non-extended dynamic situations that occur, momentarily, in time" and states to be situations that last through time and "are homogeneous throughout their period of existence." There is an immediate consequence of this distinction for our discussion of *then*. Because events are non-extended, they cannot really overlap with one another; this means that when we refer to the overlapping meaning of *then*, we are not really speaking of two events. Thus, we might expect at least one of the two verbs in each of our *E1 E2 THEN* sequences to represent a state - simply because this would then provide us with the extended duration in time needed for the understanding of temporal overlap.

Table 2 compares the number of sequences containing at least one stative verb for both *E1 THEN E2* and *E1 E2 THEN* sequences.

Table 2. Stative verbs in *then* sequences

	<i>E1 THEN E2</i>	<i>E1 E2 THEN</i>	TOTAL
with stative verb	20	25	45
without stative verb	41	5	46
TOTAL	61	30	91

We can see from Table 2 that there are more sequences with at least one stative verb in *E1 E2 THEN* sequences than *E1 THEN E2* sequences: 25/30 (83%) compared to 20/61 (33%). This is not surprising, since it is *E1 E2 THEN* sequences that have the overlapping temporal interpretation that we associated with states. It is somewhat surprising that there are 20/61 *E1 THEN E2* sequences with a stative verb and I will have more to say about that in a moment.

It is surprising that there are 5 *E1 E2 THEN* sequences that have no stative verbs. When I examined these 5 cases, however, I found that they all had verbs that could convey *processes*.

Contrast, for example, two different understandings of the verb *go*:

- (8a) Joe went to the party but JoAnn couldn't because she had a test that day.
 (8b) Joe went from one job to another before he settled down, but he gained a lot of experience along the way.

In (8a), we understand *went* as a relatively holistic action without focusing on the actual motion involved in 'going' or on how the action unfolds in time. Our understanding in (8b) is quite different: here, *went* involves movement from one location (or experience) to another, and thus, is understood not only as extended in time, but with possible differences among its phases. When verbs that can represent

processes are reported in an *E1 E2 THEN* sequences, they actually gain this interpretation. This is exactly what happens in the 5 *E1 E2 THEN* sequences that have no stative verbs. (9) illustrates:

- (9) (a) When we went into first year in high school,
(b) like I went to public high school.
(c) And that summer before everybody went into high school
(d) we like formed this small group then.

The two verbs 'go' and 'form' can easily be understood as ongoing in time, and in (9), we do interpret the event 'went into high school' as an extended process - a *period of time* during which the group was formed - rather than (in line with the more event like interpretation of *go*) the moment before *everybody went into high school* (cf. *Before everybody went into high school, we like formed this small group* or *Before I went to the bank, I stopped at the video store*).

I have just suggested that some verbs alter between momentary (more event like) and extended (more state like) interpretations, and that the latter interpretation can be heightened when such verbs are in *E1 E2 THEN* sequences. Put another way, *then* can change what is sometimes interpreted as momentary in time to something that is interpreted as extended in time.

Then can also alter our understanding of something already interpretable as extended in time, by adding to it a starting point or an ending point. We can use *then* with process verbs to illustrate (although space prevents me from illustrating this here, this is also exactly what happens in the 20 *E1 THEN E2* sequences with a stative verb from Table 2).

As I noted earlier, processes are like states (because they extend over time); they also differ from states (because what happens changes during their duration). *Then* frequently marks relationships between processes: 49/122 (40%) of the reported occurrences in *E1 THEN E2* sequences, and 17/51 (33%) of the reported occurrences in *E1 E2 THEN*, are processes. The location of *then* is especially important for our interpretation of processes: *then* imposes a temporal boundary, either initial or final, on the process. (10) illustrates the imposition of an initial temporal boundary on a process:

- (10) (a) And she got up five o'clock in the morning
(b) and she milked cows and fed chickens and did things around.
(c) Then she had to go in and take the mistress up her tea in the bedroom.
(d) Then she had t'cook.

In (10), the speaker is listing the different responsibilities that his mother had as a young farm employee. The responsibility listed in (c) is a process: 'go in and take up tea' is extended in time and contains different activity phases. When (c) is prefaced with *then*, we clearly understand when this process begins - after the prior duties end. Note how different this interpretation would be with final *then* in (c):

- (b) and she milked cows and fed chickens and did things around.
- (c) She had to go in and take the mistress up her tea in the bedroom then.

With final *then* in (c), we would interpret the process of 'go in and take up tea' as included in 'did things around' - as an example of one of those general duties, rather than as its own discrete activity. (Note that his inference of inclusion would be even stronger if the location of activities and their participants hadn't shifted in (c) to the mistress in the bedroom, cf. ...*she milked cows and fed chickens and did things around. She had to go in and clean the stalls then*). (11) is an example of an *E1 THEN E2* sequence in which it is the initial occurrence that is a process. In (11), the speaker is describing a child's initial reaction to the ocean.

- (11) (a) We got him used to it.
- (b) And then he loved it.

In (11), we interpret the process 'got him used to it' as ending prior to the inception of 'he loved it'. Thus, (11) illustrates the imposition of a final temporal boundary to a process (and note, an initial temporal boundary for a state). Again, note how final *then* ('we got him used to it and he loved it then') would create an overlapping interpretation - with neither a final boundary on 'get him used to it' nor an initial boundary on 'he loved it.'

We have now seen that the clause location of *then* changes the way we focus on reported occurrences: we can focus either on their temporal boundaries (e.g. treating processes more like bounded events) or on their internal duration (e.g. treating processes more like extended states). And this suggests that *then* can alter the way we understand linguistically represented events in ways not always provided through the meaning of the verb itself: in brief, *then* can add a successive ('E2 after E1') or overlapping ('E2 with E1') interpretation to a reported occurrence even when that interpretation is not evoked by the semantics of the verb itself.

2.2.2. Global uses of *then*

The anaphoric temporal meanings of *then* just discussed also appear at global levels of discourse. (By global, I mean relationships either between non-adjacent proposition, or those whose relationship exists at a higher level of discourse structure).

First, I illustrate a global use of 'E2 after E1' meaning. The most straightforward use is to mark successive relationships between events that are separated by other text; in directions to places, for example, *then* may mark transitional locations after providing specific details as to how to recognize such locations. (12) illustrates a global use of *then* in narrative: *then* marks an event separated from a prior event by evaluative information. *Zelda has been telling me about where she and Henry used to live.*

- (12) Zelda: (a) We lived there for two weeks without water, or gas.
 (b) We had electricity.
 (c) And it was wonderful that we could wake up in the morning,
 and play the radio, and do what we want.
 (d) Because this landlord - landlady was terrible.
 (e) And *then* we lived there for five years,
 (f) and we bought a triplex across the street.

Not every clause in (12) reports an event that figures in Zelda's narrative. Although the first event in the referential time of Zelda's narrative is reported in (a), Zelda does not continue the temporal sequence in ((b)- (c)). Rather, she develops a subordinate point (the lack of amenities) and justifies her residence in such a location. It is not until (e) that the second event in the discourse time of Zelda's narrative is reported: *then* reinstates the successive relationship with the event reported in (a).

Next, let me illustrate a global use of 'E2 with E1' meaning. Although it was always easy to find the initial occurrence in the *E1 E2 THEN* sequences discussed earlier (in fact, most were themselves temporally specified, often with *when* clauses), it is not always easy to do so when more global understandings of temporal overlap are being evoked. As (13) illustrates, even when a time period is immediately adjacent to *E2* in the text, it may still not provide the intended temporal specification. In (13), the speaker is telling a story about a friend who woke up one night and found a creature from outer space in his parents' bedroom.

- (13) (a) And, one time he woke up, right,
 (b) and he went out to blow his nose.
 (c) And we were only kids then.
 (d) So he didn't have no hankies.
 (e) His mother usually had a hankie under the kids' pillow
 (f) so they can blow their noses at night.
 (g) Well, she didn't put one under his pillow,
 (h) so he went in the front room to get one.

The speaker begins the main events of the story with a very condensed orientation *one time* (a) that provides minimal temporal information: the two events *woke up* (a) and *went out to blow his nose* (b) function more to take Al out of his room and into his parents' room - the place where he sees the creature from outer space. Note, however, that the storyteller breaks the sequence of actions to explain further (in the sequence from (c) to (g)) why Al had to go out of his own room; after his explanation, he returns Al (in (h) *so he went in the front room to get one*) to the point in reported time from which he had temporarily departed. The clauses important for our current concerns are from (a) through (c). Although the speaker provides a time period in (a) - *one time he woke up*, we do not interpret *we were only kids* in relation to the time of 'waking up': rather, we interpret it much more broadly as a state that held for the entire period of time relevant to the reported experience - and we do so even though the speaker does not provide us with this information in his text *per se*.⁵

Despite the difference in textual availability of an initial reference time with which *E2* is understood to overlap, the *kinds of reported occurrences* that overlap with an earlier reference time are the same: both locally and globally anaphoric *then* clauses report more states than other kinds of occurrences (21/30 for the former, 17/21 for the latter). Thus, despite the difference in textual availability, final *then* tells us that an ongoing state overlaps in time with a previously evoked reference time.

In sum, we have seen in this section two global textual uses of *then* that are basically extensions of the more local anaphoric meanings 'E2 after E1' and 'E2 with E1.' But we have also been moving steadily away from the consideration of propositional meanings (temporal understandings about event relationships) to more subjectively defined meanings (e.g. interpretations of temporal boundaries and internal duration) and definitions of the units of which talk is comprised (e.g. episodes). The next section will take us still further into an expressive domain of meaning: we will discuss how *then* is used in ways which seem to have very little connection with the external reality that language is often assumed to encode.

3. Expressive uses of *then* within texts

Consider, first, uses of *then* that are expressive extensions of 'E2 after E1.' One of the most striking illustrations of the imposition of this temporal meaning on non-temporally defined units is in what we can call a 'list': a successive presentation of entities or actions whose cumulative occurrence create a set of some kind. (14) illustrates.

- (14) (a) Oh, I couldn't remember the flowers,
(b) but I know she was a geranium - very crazy over geraniums.
(c) Then she had her morning glories,
(d) and then she had other flowers like, different flowers.

In (14), the speaker is listing the flowers liked by his mother, and crucially, we do not interpret the different flowers as having been brought into existence (e.g. acquired) at successive times (cf. 'she had a boy, then she had twins').

In addition to locally ordered items in lists (as in (14)), *then* is also used globally in lists, e.g. when a great deal is described about each item or after an interruption to reinstate a listing sequence. Consider, too, that it is often possible to find a basis for a list that goes beyond the descriptive basis seeming to bind the items in lists such as (14). This is because lists often provide evidence for a generalization of some kind, i.e. the specific item can be taken to be instantiations of a more general truth asserted by the speaker. (15) illustrates.

- (15) (a) Oh, she used to - me mother was good, she was good at bakin'.
(b) She was good at - she always made b - we never bought bread.
(c) She used to bake bread
(d) and then she used to make biscuits,

- (e) and then uh she's a great one she could make stuff stretch, you know what I mean?
- (f) She could - she could make a meal out of nothing.

In (15), the speaker first states that his mother *was good at bakin'(a)* and then provides two specific instances of this ability in (c) and (d). Although the speaker then continues to list items in (e), the level of his list shifts: in (e) (*and then uh she's (a) great one she could make stuff stretch*), he is stating a claim and creating a list about his mother's general abilities, rather than providing examples of one particular ability (her baking).

Although the lists so far discussed seem to allow us to discover *some* basis for the ordering of items, this is not always the case. (16) is a conversation between me and my son (when he was two and half years old) that provides a very useful illustration because I will be able to discuss how my own background knowledge might have guided my use of *then*. (A similar example can be found in Schiffrin 1987: 265.) Prior to (16), David had just met a girl named Jessie: I point out that he knows several other people with the same name.

- (16) Debby: (a) Y'know, you know a lot of Jessies!
 (b) There's cousin Jesse...
 David: (c) Cousin Jesse.
 Debby: (d) *then* there's tiny Jesse...
 (e) remember? from Jesse and Peter?
 (f) We just saw them.
 David: (g) With Peter. And Iris!
 Debby: (h) Yes! *And then* there's Jessie from nursery school!
 (i) She just gave you a dinosaur.
 David: (j) Where is my dinosaur?

In (16), each person named Jessie is a different topic in the overall text topic 'people named Jesse'. (See Schiffrin 1988, 1989 for discussion of different levels of topic). I first introduce each person (using a typical frame for new character introduction, existential *there*), and then provide additional identificatory information about each person. I do not present the topics as events, as if, for example, in (b) I had said *we saw cousin Jesse..*, and I do not intend them to receive a temporal interpretation. Nevertheless, the order in which I introduce the topics *does* have an iconic relationship with an external temporal reality based on recency of contact: we had seen *cousin Jesse* a month ago, *tine Jesse* 4 days ago, and *Jessie from nursery school* 15 minutes ago. I suspect, however, that even though my order of presentation reflects the recency of contact with the different Jesse's, it also reflects my closeness to them, and perhaps my expectations for David's closeness to them (cousin > friend > acquaintance). In addition, the order of the topics in discourse time may also reflect the order in which I remembered each Jesse. Thus, the order of topics has an indirect connection with an external temporal domain (recency of contact), and perhaps also with an internal cognitive domain (perceived importance, order in memory).

What happens next in (16), however, illustrates that the use of *then* can con-

tinue to structure a topic sequence even when the prior iconicity between topics and external time has disappeared. What does seem to remain as a temporal motivation, however, is the order in which I remember each topic.

- (16) Debby: (k) Oh wait!
(l) *Then* there's dog Jesse from up the block!
David: (m) Dog Jesse!
(n) He will bark.
Debby: (o) I forgot all about that Jesse.

After listing the three Jesse's I recall another, Jesse (a dog) who is also known to David, and I use *then* to preface the introduction of this next topic - *dog Jesse*. *Then* may still be functioning in a cognitive domain here: in terms of perceived closeness, *dog Jesse* is certainly last - so the topic sequence may actually continue to reflect my familiarity with the different Jesse's. Similarly, *dog Jesse* was the last one I remembered. But not only has the temporal motivation for using *then* shifted, i.e. I did not see the dog more recently than *Jessie from nursery school*, but we can no longer be sure of the basis (or even the range of bases) for my use of *then* to help order my references to the different Jesse's.

I have considered (16) in some detail in order to show that we cannot be sure why a speaker chunks a text in a particular way and what the units being marked by *then* really are. One possible solution is to say that the speaker's organizational basis for using *then* is actually less relevant for our analysis than the fact that *then* merely eases the hearer's task (i.e. processing what is said) by imposing some kind of segmentation on a continuous stream of talk -especially relevant during a conversation with a two and half year old child.

In sum, I have used one type of discourse - lists - to show how speakers use *then* to impose an organization on emergent texts that does not revolve around temporal relationships among events. The temporal meaning of *then* as 'E2 after E1' thus reappears to organize items whose conceptual basis is not at all temporal.

Consider, now, expressive extensions of 'E2 with E1.' Most relevant here is the use of *then* to convey that a speaker addresses the possibility that one proposition holds just in case another proposition also holds. (17) illustrates what in my earlier work (Schiffrin 1987: 254-261) I called a warrant/inference sequence. Prior to (17), I had been sitting with Freda and her husband Jack on their front patio. It is just starting to get dark, but Freda does not turn on her outdoor light. In (a), Freda asks whether I will still need light:

- (17) Freda: (a) Do y'sill need the light?
Debby: (b) Um.
Freda: (c) We'll have t'go in *then*.
(d) Because the bugs are out.
(e) We're gonna go crazy with the bugs.
(f) (Jack Freda and Debby go into the house.)

Freda first requests information about whether I need the light in (a) and my *um* in (b) confirms that I do. Freda then makes a second request in (c): she requests

that Jack and I take a particular action, i.e. that we go in the house. What is critical about Freda's request for action ((c)) is that it is contingent upon the information that I had just provided in (b): because I *need the light, we'll have t'go in*. Still another way of saying this is that Freda has drawn an inference that *we'll have t'go in* as a consequence of my need for the light.

The second example is a request for confirmation (Schiffrin 1987: 254-257):

- (18) Debby: (a) Where in South Philadelphia were you born?
Ira: (b) 16th and South.
Debby: (c) Oh, Okay. That's sort of close to center city then.
Ira: (d) Umhmmm.

As I discuss in my earlier work, both of these examples illustrate discourse environment in which one speaker is using information provided by another to draw an inference and more critically, check with the person whose provision of information has warranted that inference to see if it is justified. Put another way, a speaker is making public the possibility that a proposition holds just in case another just-given proposition also holds.

Although it was fairly easy to see how *then* in lists extends the temporal meaning of succession, it may not be as easy to see how inferential *then* extends the temporal meaning of overlap. However, there are three reasons why I believe that it does so.

First is the clause final position of *then*: in my corpus 33/33 cases of inferential *then* were clause final. Furthermore, the 5 cases of clause initial inferential *then* occurred when the inference was not totally guaranteed by prior talk, and in some cases, when it was controversial. What this implies is a higher level contrast (e.g. conflicting or disputed conclusions based on insufficient evidence) similar to the temporal contrast responsible for clause initial *then* with overlapping temporal meaning. Thus, clause final position seems to be used when *then* conveys overlap between textual units, regardless of whether those units are temporally or ideationally defined; exceptions are due to the presence of higher level temporal or ideational contrasts.

Second, I have several examples of requests for confirmation (cf. (18)) in which final *then* can have either a temporal or inferential reading. In just such cases, however, the speaker adds a tag that leads her interlocutor to provide the very confirmation also designed to be elicited by *then*. (19) illustrates.

- (19) IVee: (a) We had a butcher on the corner
(b) and he used to give us uh, uh, we used to buy bones for soup.
(c) And uh, I think for twenty-five cents you could've got the whole damn caw!
IVer: (d) Sound like you could really go for long time then, couldn't [you?
IVee: (e) [Oh yeh.

Ambiguity such as that in (19) suggests that final *then* can easily move between a temporal meaning and an inferential use; furthermore, when it may be unclear as to

which reading is intended, a speaker may use another device to assure the availability of both readings.

Finally, note that inferential *then* is similar to the causal (more accurately, resultative) conjunction *so*: for example, in (18), I might have said *Oh! Okay. So that's sort of close to center city*, displaying my remark to be a result of what was just said. Although it is possible to argue that *then* is pragmatically strengthened to a causal implicature (e.g. through Levinson's (1983) principle of informativeness, or a process of 'conjunction buttressing'), the reason for that causal understanding may very well be based on temporal overlap, for as Traugott and König (1988, P. 14) find in their review of the semantics-pragmatics of grammaticalization, "what is needed for a causal inference to arise is partial temporal overlap, not sequence".

In sum, *then* is used when a speaker addresses the possibility that one proposition holds just in case another proposition also holds. This inferential use of *then* is based on the overlapping meaning of *then* 'E2 with E1'.

4. Conclusion

In this paper, I have proposed the following meaning and derivative uses for *then*:

Figure 1. Distal meaning of *then*

RELATION TO SPEAKING TIME	prior	posterior
TEXTUAL	'E2 with E1'	'E2 after E1'
EXPRESSIVE	warranted by	progress to

It is now time to consider how the distal meaning of *then* as 'not at this time', more specifically 'prior to' and 'posterior to speaking time', is the basis for its anaphoric temporal meanings (both local and global) and for its textual and expressive uses. As we will see, the key to understanding this relationship is the clause position of *then*.

Let us start by examining (20a):

(20a)	SUCCESSIVE	
	utterance time	E1 THEN E2
	real time	E2 is after E1
(20b)	OVERLAPPING	
	utterance time	E1 E2 THEN
	real time	E2 is with E1

As (20a) shows, successive meaning 'E2 after E1' arises with clause initial *then*, i.e. in the sequence *E1 THEN E2*. In the 'utterance time' (the order in which utterances are presented) of this sequence, E2 thus occurs after *then*. This means that we interpret E2 as after E1 in both 'real time' (the order in which events in the real world are understood to occur), and, we find E2 after *then* in utterance time. We see the very same parallel when we turn to the overlapping meaning of

then in (20b): just as we interpret 'E2 with E1' in real time, so too, we find that E2 is *with* E1 (before the occurrence of *then*) in utterance time. Thus, when E2 is after *then* in utterance time, E2 is understood as after E1 in real time; when E2 is with E1 and before *then* in utterance time, E2 is understood as with E1 in real time.

Let us now think of the very moment at which an utterance - or even an expression - is produced as being a very narrowly defined utterance time within a textual world, i.e. a 'now' of utterance production. We can then think of motion either forward or backward from that textual moment as motion in the textual world parallel to motion forward and backward from a more globally conceived speaking time in the speaking world. In other words, we're now thinking of a text itself as a world in which time progresses, and during which expressions occur either before or after one another.

Then has its own textual moment in relation to reported occurrences in utterances (either between E1 and E2 (E1 THEN W2) or after E1 and E2 (E1 E2 THEN)). Regardless of where *then* is in relation to E1 and E2, however, *then* directs attention *away from* its own textual moment: indeed, this is the very crux of its deictic meaning. The location of *then*, however, is critical in determining the direction of that attention: the location of *then* indicates whether movement is forward or backward - posterior or prior - to the 'now' in the textual world. In brief, when *then* is between E1 and E2, attention goes forward to upcoming events in the textual world: but when *then* is after E1 and E2, attention goes back to prior events in the textual world. Thus, *then* directs attention either forward from (posterior to) or backward from (prior to) the present. And the direction of this motion is provided by the location of *then* in relation to reported occurrences.

To summarize, I have suggested that the anaphoric meanings of *then* as successive ('E2 after E1') and overlapping ('E2 with E1') are outcomes of two things: the location of *then* in relation to E1 and E2, and the distal meaning of *then* (either forward or backward in the textual world). Thus, it is the distal meaning of *then* that directs hearers away from the present discourse time and utterance time, and toward the textual world in which the utterance is situated. The dual axes of distal meaning (prior and posterior) are reflected in the way *then* leads backwards into prior text or forward into posterior text. These meanings are then extended into more global relations among textual units as they emerge during talk, and into units that are not necessarily temporally defined at all.

How can all this happen? I believe that there are four reasons why the deictic opposition between proximity and distance in time can be used for textual and expressive ends. First, temporal relationships themselves are notoriously open to manipulation. For example, we can segment experiences into events in innumerable ways, i.g. we may report as a single event what happens in a year (*I travelled in Europe all that year*) a day (*I went to work on Wednesday*), or a second (*I felt the first drop of rain*). Furthermore, because so many different things happen at a single point or period of time, the potential for temporal overlap is also tremendous. In brief, time is a semantic domain especially available for metaphorical use (cf. Fleischman 1989).

The second reason is that discourse emerges over time, such that it creates its own past, present, and future - in short, another temporal world equally open

to manipulation. Thus, speakers may segment talk into units of very different sizes and types, and create not only anaphoric (backward looking) ties to such units but also cataphoric (forward looking) ties; ties in both directions may be created either locally or globally.

Third is the relationship between text and context. As I discuss elsewhere (Schiffrin 1990), the view of the text/context relationship most compatible with my analysis is the ethno-methodological view (Garfinkel 1967): text and context constitute (both create, and are created from) each other.⁶ This view suggests that textual and contextual worlds are not as different as is often assumed, and that it is in the process of creating one another that a deictic field is formed (cf. Bühler 1934). In addition, this view helps to explain parallels between the deictic and anaphoric meanings of *then*: if the world in which we exist (a context) and the world that we construct through talk (a text) are too closely united in our actual experience to warrant analytical separation, then we should find that *then* has parallel functions in what is essentially a single world of experience.

The final reason why *then* has the textual and expressive uses discussed in this paper lies in the nature of 'events' themselves. We started our analysis of *then* discussing events as if they were linguistic categories that matched an external reality; we ended up saying that speakers can use language to report occurrences in ways that impose a different kind of 'reality' status on them. Thus, we moved from a discussion of 'event' to a discussion of 'event like' occurrences, simply because we began to see that speakers can draw upon discourse level arrangements to modify both the internal properties and external contours of reported occurrences. This was important, for it showed that what we sometimes think of as static properties of verbs - of the linguistic code - are really fluctuating and relatively open ended meanings that can be different depending on how they are embedded in text and context.

It is often noted that events - in the experiential sense - are not really independent of the speaker's presentation of them in language (see discussion in Fleischman, 1990: Chapter 4), and even further, that events do not have a status independent of their existence in texts. Mink (1978), for example, proposes that the way people talk - the way they predicate actions of agents, the temporal and spatial boundaries they assign to those actions, and so on - actually imposes an event status on the experience of both producers and recipients of talk. What this means is that events need not have a basis in an external reality, but may be, as Bauman (1986: 5) points out:

structures of signification in narrative that give coherence to events in our understanding, that enable us to construct in the interdependent process of narration and interpretation a coherent set of interrelationships that we call an 'event'.

Thus, if *then* functions in a realm of speaker subjectivity even in its most propositional use of conveying temporal relationships between reported occurrences, then it need not be a surprise to find it so easily extended into other expressive realms of talk.

Notes

1. Data are from sociolinguistic interviews. I thank William Labov for generous access to interviews conducted as part of a Project on Linguistic Change and Variation (NSF Grant BNS-7500245). Transcription and analysis of the interviews was also greatly facilitated by NSF Grant BNS-8819845, and I am most grateful for its support.
2. It is important to note (as one reviewer of this paper has pointed out) that the opposition between *now* and *then* is not quite as simple as I am presenting it to be: whereas deictic *then* seems to require a joint focus of attention (as I illustrate in the text in a moment), *now* is always deictic (except in its textual uses as a discourse marker, Schiffrin 1987: 228-46) simply because it always has a time referent in the speech situation, i.e. the moment of speaking. Put another way, whereas deictic uses of *then* seem to be marked, deictic uses of *now* seem to be unmarked.
3. *Then* is perfectly appropriate here when it conveys what I later describe as an inferential meaning.
4. Standard tests for implicatures support my belief that rather than pragmatically implicate a meaning of 'succession' (cf. *and*), *then* conveys 'succession' as part of its semantic meaning: specifically, one cannot cancel the inference that E2 occurs after E1 when the two are presented in an *E1 THEN E2* sequence.
5. Of course there are several events that also occur during the time period of 'we were only kids', and thus, we could say that *then* does overlap with prior tense morphemes. The reference time that these tense morphemes establish, however, is shorter than the period of time conveyed in 'we were only kids then'.
6. A major difference, however, is that Garfinkel (and indeed, the entire conversation analytic perspective developed from his view) doubts the existence of stable (and communicable) semantic meanings of the sort argued here for *then*.

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THE ANALYSIS AND RECONSTRUCTION OF THE TEMPORAL STRUCTURE OF NARRATIVE TEXTS

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Abstract

The tensing system of English with its four interdependent components (Geschehenskonzepte, time adverbials, aspect, and tense) is part of the text-forming capacity of this language. Processing a narrative text primarily consists in the reconstruction of the chronological order of its events, i.e. in determining the temporal relation between the reference times via which the events are positioned on the time line. Instead of advocating an automatic progression of the reference time triggered by the aspectual class implemented by the individual proposition, a more complex procedure is envisaged in this paper.

1. The tensing system

The reception of a narrative text requires a decoding machinery of considerable complexity. Even single aspects of the textuality of a narrative text, for instance its temporal structure, share this complexity. The basis for the analysis of the temporal structure of a narrative text in English is the English tensing system with its four components: aspectual classes (Geschehenskonzepte), time adverbials, aspect and tense, which can be said to form a system because of their close interdependence.

1.1. Aspectual classes

The most important of the components of the English tensing system is the aspectual classes, situation types, or in my own terminology: Geschehenskonzepte, which were first discussed by Aristotle and re-introduced into logical and linguistic discussion by writers such as Sibley (1955), Ryle (1958), and above all by Vendler (1957). Aspectual classes seem to have developed into one of the major topics of present day linguistic discussion, one need only think of the extensive work done on this subject by Verkuyl, who in his latest contribution (1989) surveys a good deal of the literature recently published in this field.

It is three questions that are of interest in this connection. The first concerns the nature of the Geschehenskonzepte or situation types as they are sometimes called by British writers. Next, there is the question in which domain these classes are implemented, and, finally, we must ask on what type of criteria this classification is to be based.

The nature of aspectual classes. The term 'situation types' strongly suggests that aspectual classes are conceived of as ontological classes. As the terms 'Geschehenskonzeppte' or 'event notions', which I prefer, indicate, I fully side with Carlson (1981: 36) in this question, for whom the linguistic nature of this classification is proved by the fact that switches of meaning caused in one and the same member of an aspectual class by different collocations (*knock - be knocking*) are "discrete, systematic, marked, and predictable from the basic sense of the verb".

The number of aspectual classes. Vendler set up four types of event notions: states, processes, accomplishments, and achievements. Verkuyl (1989: 58) takes exception to the distinction between the latter two, but I feel that we should stick to this distinction in order to be able to account for the differing tensing potential of the two classes, which follows from their differing phasal constituency. While accomplishments (*write a letter*) assert a punctual initiation phase, a (cumulative) process phase and a punctual termination phase as an undivided whole, achievements (*reach the summit*) positively assert only the punctual termination phase, a phase which is nonetheless the climax of a process phase which, however, is not a component of the lexical content of the achievement, but is presupposed. This difference in phasal constituency is reflected by the fact that achievements can select time-point adverbials (*reach the station at 12 o'clock*), while accomplishments cannot. To account for, and do justice to, the observational data even more than four classes seem to be necessary. To which aspectual class should we, for instance, reckon the expression *look away*? I hesitate to call it a momentary change like *stop talking* because *look away* allows the isolation by the progressive of the phase resulting from the change: *He is/was looking away* is normally interpreted as referring to the averted gaze, while *He is stopping talking* does definitely not refer to the state resulting from the change. On the other hand, the two expressions have in common that their result phase can be adverbially quantified: *He looked away/stopped talking for a moment*. And, to point to a further difficulty, what is the result of predicating the two propositions in the Present Perfect? Have *He has stopped talking* and *He has looked away* exactly the same meaning? A further interesting case is the expression *lift this heavy table*. Does this expression if combined with a durational time adverbial (*lift this heavy table for ten minutes*) refer to the raised position of the table or to repeated acts of lifting during the period specified by the time adverbial? And, finally, to which phase does the progressive refer in this case? - *Look, this man is lifting this heavy table!* - It is questions like these that suggest that a fairly delicate subclassification of event notions is necessary if we want to account for all these observational data.

The implementation of event notions. In the beginning of the study of aspectual classes it was assumed that it was the isolated verb that carried this subclassification. The extensive discussion of the 'Aktionsarten' demonstrates this. It soon became clear, however, that the complementation of the verb with objects and adverbs (*lesen - einen Brief lesen*) contributes to this subclassification, so that the predicate phrase was assumed to be the maximal domain for the implementation of aspectual classes. And, in fact, there seem to exist phrases in connection with which different subject noun phrases do not produce different aspectual classes (*Hans geht auf der Straße - Viele Leute gehen auf der Straße*). In other cases the nature of the subject noun phrase, however, may change the aspectual class of

the sentence (*John solved this problem - Several mathematicians solved this problem*). Thus, the maximal domain for the implementation of aspectual classes was assumed to be the clause or simple sentence. I prefer the term 'untensed sentence concept' ('unverzeiteter Satzbegriff') or, for shortness sake, 'proposition' in this context.

Criteria for the subclassification of aspectual classes. The subclassification of untensed sentence concepts into different types of 'event notions' or aspectual classes can apparently not be based on criteria or data available for, and used by, the physicist, for whom colours, for instance, turn out to be radiation processes; nor on data produced by the human perceptual apparatus. Whenever we hear something, we seem to be aware of variation and change. But I wonder whether we can say that English or other European languages conceive of auditory perceptions as processes. The data for establishing aspectual classes will have to be *intra-lingual* ones, i.e. supplied by phenomena such as collocational affinities, semantic (in)compatibility, implicational and presuppositional relations (*Zeitstufenimplikationen*) and, above all, systematic meaning switches as mentioned above.

Subclassification on the basis of the quantificational tensing and the actualization potential. Data such as those just mentioned supply also the basis for two further types of propositional subclassification, subclassification on the basis of what I call their quantificational tensing potential and their actualization potential.

The subclassification of propositions on the basis of their actualization potential goes back to Vendler (1957), who distinguished between expressions such as *drive a taxi*, *go to school*, and *smoke*, on the one hand, and *rule England*, *grow potatoes*, and *educate one's children*, on the other. The former can be predicated as actualized (*John is smoking*), the latter, Vendler's so-called generic states, cannot. At best, we produce a joke if we try to predicate a proposition of this type as actualized: *What's going on upstairs, what's the noise there? - Well, John is educating his son.*

As to the subclassification of propositions according to their quantificational tensing potential, I propose to distinguish between extra-temporal propositions (logical truths, scientific laws), which lack a specific position on the time line, and co-extensive predications, which attribute the quality they name to the subject without envisaging its temporal limitation in comparison with the subject's existence in time, and finally, predications that attribute only temporary qualities. Predications may implement only one of these classes (*fidget about - be tall*) or allow the implementation of more than one class, i.e. allow the choice between two types of tensing: *be a fool - be being a fool*. Such predications asserted in the simple present may refer to a permanent or temporary quality, whereas in the progressive they express only a temporary quality or temporary behaviour.

Now, what is the function of these various proposition classes within the framework of the tensing system of English? They establish an area of potential choice for tensing operations in English, i.e. for tense and aspect. We may summarily refer to this area as inherent temporality of untensed sentence concepts, in German terminology as 'inhärenter Zeitbezug unverzeiteter Prädikats- und Satzbegriffe'.

1.2. Aspect in English

An extensive discussion of the functional contrast between the simple and progressive verb forms in English (Schopf 1984: 235-276) is definitely beyond the scope of this paper. A few remarks, however, to characterize the present author's approach seem in place.

There is first of all the question whether the morphological contrast between the simple and progressive verb forms in English can functionally be interpreted as one of aspect. Pollak (1960: 45) proposed to use the so-called 'Inzidenzschema' as a criterion for this question, i.e. the time-comparing sentence in which a durational background event is interrupted by the occurrence of another event. Languages that require contrastive verb forms for these two events - imperfective/progressive for the background and perfective/simple for the (foregrounded) interrupting event - should be considered to manifest aspect. From this point of view, English (*Mary was smiling when John looked up*) Russian (*Ivan cital, kogda ja vosel*), French (*Jean lisait quand j'entrai*) as well as Spanish, Italian (Comrie 1976: 3), and modern Greek (Pollak 1960: 43) are aspect languages, even though the uses of the contrastive verb forms do functionally not fully coincide in all these languages. Please note also that in English and in other aspect languages the temporal relation of the event reported in the 'Inzidenzschema' changes if the progressive/imperfective is replaced by the simple/perfective form: *Mary was smiling / smiled when John looked up*.

As to their functional characterization, the two contrastive verb forms in English can be said to exert a selective force on an area of potential differentiation supplied by the aspectual character or inherent temporality of the sentence concept. Where the differentiation potential of the sentence concept is confined to its phasal constituency as, for instance, in (*John write a letter*), the progressive selects the (cumulative) process phase and asserts it as durational from a time point within this phase (internal tensing: *John was writing a letter*), while the simple form asserts all the phases of the sentence concept as an undivided whole. Imperfectivity or phasal selectivity on the one hand, and perfectivity or totality of the phasal structure on the other, is the classical functional characterization of the aspect opposition.

But with the changing differentiation potential of the sentence concepts, as for instance in (*John write books*), the functional characterization of the aspect opposition also changes. The simple form asserts a co-extensive characterization of the subject (*John is a writer*), the progressive asserts the occupation of writing books as a temporary characterization without actualizing it. In other cases, even a threefold differentiation is possible. The sentence concept (*John work for the FBI*) can be asserted by the progressive as an actualized state of affairs as well as a temporary occupation, while in the simple form John's occupation is asserted as co-extensive. In cases where the sentence concept names a momentary event (*The dog snap at his leg*), the differentiation by the aspect opposition is between semelfactivity and iterativity. In still other cases the differentiation potential includes conativity and factuality (*When he was switching on the light, a bullet hit him*) or the (cumulative) prephase of an achievement and its climax as in *reach the summit* or *win the race*.

Maintaining that the function of the aspect opposition in English can be described as selectivity relative to the differentiation potential supplied by the sentence concept necessarily leads on to the question where this selectivity takes its origin. Must the simple verb form and the progressive in English each be accorded a constant meaning with which they divide up among themselves the differentiation area supplied by the sentence concept, or is it only one of the two forms, e.g. the progressive as the marked one, which is characterized by a positive and unified semantic emphasis with which a definite part of the differentiation area is selected, while the remaining part is left to the more neutral unmarked member of the opposition?

In Schopf (1984: 263) the selective force of the aspect opposition was assumed to rest primarily with the progressive. But it may be that relative to specific sentence concepts it is the simple form that has a more unified semantic emphasis and carries the primary selective force. This seems to be the case with sentence concepts implementing momentary events as *reach the summit*, *switch on the light*, *snap at somebody's leg*, *look away* etc. Here it is the progressive that shows more varied uses (pre-climax phase, conativity, iterativity, result phase), while the simple form seems to show a more unified semantic emphasis. We are faced with a question that requires further study.

There is yet another question that does not yet seem to be definitely settled. In Schopf (1984: 262) the progressive was looked upon as a semantically complex symbol with four meaning components (imperfectivity, temporality, actualization, and processivity). Can these four meaning elements be traced back to a unified meaning without arriving at a meaningless abstraction? For the present this question also seems to have to remain undecided.

1.3. The English tenses

Several attempts have been made at arranging the English tenses into a consistent and contrastive pattern or system (Diver 1963, Bull 1968), which cannot be discussed here. Only some of the controversial questions shall briefly be taken up.

Most linguists seem to share the opinion that tenses are deictic categories in so far as they locate event or reference times on the unidirectional time line relative to the speaker's now, i.e. the temporal centre of his deictic field. A distinction is usually made between absolute tenses, which are related to the speaker's now, and relative tenses, which are related to orientation axes other than the speaker's now. This relation may be threefold: simultaneity, anteriority, and posteriority. Whether these three relations relative to the speaker's now constitute the three absolute tenses, can apparently not be answered affirmatively for all languages with tense systems. English, for instance, faces us with the question whether the past or present perfect tense is to be considered the absolute tense expressing anteriority to the speaker's now. An appealing way of distinguishing between these two tenses was introduced by Reichenbach (1947), who proposed to use in addition to speech and event time a third parameter, namely reference time. On the basis of these three parameters the English past and present perfect tenses can be distinguished as follows:

The present perfect locates events at indefinite times within a reference frame anterior to, but including speech time. This explains why the present perfect excludes collocation with time adverbials specifying definite past times. It is the time of speech from which the past event is viewed. Jespersen (1965: 47) therefore called the present perfect a retrospective or inclusive present. Comrie (1976: 53) characterizes the present perfect as expressing "a relation between present state and past situation", i.e. as conveying present relevance. If we make use of Bull's (1963) distinction between vectorial and tensorial tense function, the English perfect will have to be called a vector because it does not convey any information about the distance of the past event from the time of speech. Only traces of a tensorial function, i.e. the inclusion of a quantifying element, show up in the present perfect in its collocation with time adverbials expressing proximity to the time of speech (*just, recently, lately*). The English present perfect has by some writers been called an aspect, for instance by Comrie (1976: 52 ff.). This can only lead to terminological confusion. The present perfect locates events in time relative to the centre of the speaker's deictic field. Its principal use is that of a tense, the more so since its various uses, for instance the so-called resultative perfect, cannot be considered independent meanings but seem to result from an interaction between the basic meaning of this tense ('present relevance') and the phasal constituency of certain sentence concepts (Matthews 1987).

The function of the past tense in English can be indicated as follows: it first of all directs the recipient's attention to the time sphere anterior to, and excluding, the time of speech. This is its vectorial function. But it also presupposes a definite reference time or reference frame. This explains its exclusive collocation with time adverbials specifying definite past times, to which the past tense refers anaphorically. If no orienting time adverbial is present, a definite time or occasion is presupposed as common knowledge shared by speaker and recipient, and to which the past tense can be said to refer deictically.

The time introduced by the time adverbial may either coincide with the event time (*Yesterday at 10 o'clock a bomb exploded at the station*) or supply a reference frame which includes a definite or indefinite reference time coinciding with event time: (*John didn't turn up yesterday*: i.e. at a definite occasion) - (*I lost my watch yesterday* - *He will be allowed to leave hospital next week*: i.e. at times that remain communicatively indefinite).

Another point that shall briefly be raised here is the so-called sequencing function of the past tense. It was argued that perfective past verbs carry the narration forward in time. This was claimed to be the case with the Russian perfective. Comrie (1986: 26) argues that this sequencing function of the perfective past is an implicature. In contrast to this it will be shown later in this paper that the sequencing of events in a narrative is the product of an extremely complex computational operation relying primarily on semantic and pragmatic signals.

Another area of dispute is the future tenses in English (Schopf 1987: 219), which need not be discussed in the context of this paper.

1.4. The English time adverbial

In the context of our discussion only a few hints are necessary about the time adverbial. It can be divided up into quantifying and orienting adverbials. The former do not locate events in time, but may modify the aspectual class of the sentence concepts. The latter refer to times on the time line from anchors or orientation axes to which they are bound: speech time and reference and event times.

The most interesting aspect of orienting time adverbials in a narratological context is their affinity to specific orientation axes. Some adverbials can only use the time of speech for their anchor (*next week*), others can only be anchored to other times (*the next week*), and a third group allow anchoring to both speech and other times: *I have seen that man before - I had seen that man before*. This distinction becomes important for the discrimination between the various modern narrative techniques.

1.5. The tensing system used for various purposes

The description of the English tensing system would be incomplete without pointing out that it, or some of its components, can be put to different uses on different linguistic levels. On the pragmatic level, the aspect opposition is made use of for the differentiation between 'constative' and 'performative' utterances. According to Austin (1955: 47) explicit performatives use the simple present (*I apologize*). The same proposition in the corresponding progressive signals other communicative purposes: *I am apologizing* is usually an interpretive present which refers back to an utterance just made. The progressive may also be used in the performative formula to temper the force and directness of an explicit performative: *I warn you - I am warning you* (Schopf 1969: 219 f.). But the most interesting aspect of the use of the tensing system is its share in the text forming function of language, to which we shall turn now.

2. The tensing system on the textual level

What a series of disconnected sentences distinguishes from a text is a specific quality manifesting itself in a number of links or a web of unifying relations which Halliday (1976: 26) calls 'texture'. This web of unifying relations is brought about by a separate functional component of language, its text forming component. Considering this capacity as a separate function of language entails the reorganization of the traditional communication model. Whereas Bühler (repr. 1965: 28) accords the linguistic sign three principal functions - *Darstellung* (representation), *Ausdruck* (expression), and *Appell* (conation) -, Halliday subsumes these three functions under two, the ideational and interpersonal, and adds a third function, the textual component, i.e. the resources language has for creating text (1976: 27).

2.1. The textual component of language

The unifying devices with which the textual component establishes the holistic character of a text may be subdivided into information structure, studied above all by the Prague school of linguistics (cp. for instance Firbas 1964, Sgall 1976, Daneš 1987 etc.), and cohesion.

Cohesion links together elements that are structurally (morphologically and syntactically) unrelated to one another. This faculty of linking together rests on a number of devices: reference (pronominal anaphora), substitution (the propword *one*), ellipsis, conjunction, and lexical and semantic relations.

Conjunction can be additive, adversative, causal, and temporal. According to Halliday (1976: 337 f.) temporal cohesion is primarily achieved by time adverbials (*then, meanwhile, next, until then* etc.).

Temporal cohesion does, however, not seem to be primarily brought about by time adverbials. In narration it manifests itself above all in the recoverability of the chronology of the events reported, however grossly their natural order may have been distorted in the telling. And it is the regularities and rules summed up here under the term 'tensing system' that ensures this recoverability. Modern authors ensure the recoverability of the chronological order of events by more delicate techniques, techniques based on the rules and regularities which the tensing system of the language in question supplies and which allow them to dispense with temporal conjunctions.

2.2. The reception of narrative texts

One of the central aspects of the reception of a narrative text is the reconstruction of the chronological order of the events reported in a narration. This reconstruction relies on four principal temporal concepts: the adverbially supplied time (A), speech time (S), event time (E), and reference time (R).

The backbone of the temporal structure of a narration is the sequence of its reference times, in relation to which its events are positioned on the time line via the three temporal relations of simultaneity, anteriority and posteriority, thus creating the temporal web of the text. As we assume that every predication has a reference time of its own but not every predication (or sentence) moves us forward in time, we are faced with the question how the progression of reference times is achieved.

The progression of reference times. Several models have been proposed for the analysis of the progression of reference times, of which only three shall be mentioned: Hinrichs (1981), Kamp/Rohrer (1983), and Partee (1984). These studies cannot be discussed here in detail. What must be mentioned, however, is what they have in common. They more or less strictly adhere to the idea of an automatic progression principle for reference times triggered by the aspectual character or event notion of the propositions. Bounded propositions, i.e. accomplishments and achievements, are said to push the reference time forward, while states and processes are related to the last established reference time as simultaneous. In contrast to

this, the hypothesis is ventured here that there is no automatic progression principle for bounded propositions.

In Schopf (1989: 281 f.) a number of principles for the temporal analysis of narratives was proposed which will be presented here in a somewhat modified and extended form:

(1) Extract from the sentence under analysis the untensed proposition and determine its aspectual character or event notion!

(2) Check whether its aspectual character is modified by a quantifying adverbial!

(3) Check whether the progressive, if present in the sentence under analysis, changes the event notion of the proposition!

(4) On the basis of the aspectual character of the proposition so far ascertained, choose a) the type of reference time needed (i.e. point or interval), and b) determine its position relative to the phasal structure of the proposition: point of mutation, termination phase, process phase, comprising all phases!

(5) Single out the time sphere appropriate for the (past) tense!

(6) Check whether an orienting time adverbial indicates the position of the reference point, i.e. whether it indicates the reference point precisely or supplies a frame for it. In the latter case, look out for contextual information as to its position within the frame!

(7) If no orienting time adverbial is present, relate an unbounded event proposition (state, process, or progressive) to the reference time last established by the analysis and let the unbounded event include or overlap it, provided, temporal incompatibility on semantic or pragmatic grounds does not prevent it. If it does, move the reference time one step forward!

(8) In the case of bounded propositions, the positioning of the reference time cannot be achieved by such a simple procedure as in (7). The analysis will have to start with the following bi-sentential checks:

a) Make sure whether the event introduced by the newly-added sentence is a sub-event of a global event predicated in the preceding sentence!

b) Ask whether it interprets the preceding event, i.e. is coreferential with it!

c) Ask whether the newly introduced sentence subsumes the preceding event or events under a comprising or hyperonymic denomination!

If one of the conditions a. to c. obtains, relate the reference time of the sentence under analysis to the reference time of the preceding sentence as simultaneous with it, i.e. as falling together with, included in, or overlapping it!

d) Check whether the new and the preceding sentences are temporally incompatible on semantic or pragmatic grounds. If so, move the reference time one step forward!

(9) If no decision can be reached on the basis of the preceding bi-sentential analysis, relate the sentence under analysis to its progressively larger context, ultimately, to the whole context so far received!

Thematic structuring of narratives and their temporal analysis. The procedure sketched in the preceding for the analysis of the temporal structure is not yet complete. In Schopf's (1989: 247-283) attempt at a temporal analysis of a passage from James Joyce's *A Portrait of the Artist as a Young Man* it became evident that for the reconstruction of the chronological order of its events the author relied on the recipient remembering events related several pages back. What is more striking still is the fact that the integration into the textual whole of an

event reported by a newly-added sentence may be achieved not by its simple addition to the bulk of the preceding sentences, but by its integration into a higher or larger thematic unit in a hierarchy of thematic components.

The reader need not be reminded that text linguistics proposed to conceive of lyrical poems as structures or hierarchies of thematic units or isotopies (Greimas 1966, Rastier 1972), but thematic structuring was also postulated for narratives (Greimas 1970). I am not at all sure whether these proposals will turn out helpful for the literary analysis of modern narration, what I feel is helpful is the idea that an individual event reported in a narrative may be integrated into a smaller meaning or thematic component before it forms part of the textual whole. And the recognition of this thematic component, often summarizable by a hyperonymic expression, may contribute to the identification of the temporal position of the event in question by the recipient.

A similar, perhaps even more appealing idea was expressed by Van Dijk (1972: 280 f.), when he made a distinction between linear or surface coherence resting on such phenomena as chains of topic-comment structuring and other progressive semantico-referential sentence-to-sentence relations on the one hand, and global or deep structure textual coherence on the other, the latter being brought about by inserting single events first into small but more comprising content units and of these into progressively larger meaning structures until, finally, the all-comprising theme or meaning of the narrative emerges.

The temporal structure of a novel, although sometimes extremely complex, is nevertheless primarily an aspect of its surface coherence. Its analysis does, however, definitely not exclusively depend on such surface phenomena as bi-sentential semantic and pragmatic relations. In an analysis of part of Joyce's *A portrait of the Artist as a Young Man* mentioned above, it was found that its correct temporal analysis depended on identifying the individual events as parts of a larger situation and on grasping the author's communicative purpose he wanted to achieve with this passage, namely, to let the recipient relive together with the narrated person, now a grown-up young man, one of his boyhood experiences reported in the novel 100 pages back.

We come to the conclusion that the integration of bounded events into the temporal web of a narrative is a much more difficult and complex process than the comparatively easy integration of unbounded events. Although the temporal structure of a narrative is an aspect of its surface coherence, the reconstruction of the chronological order of its events may nevertheless to a considerable extent depend on aspects of its global coherence, ultimately on its meaning or all-comprising sense. Authors apparently rely, as participants of ordinary communication or discourse do, on Grice's (1975) Cooperative Principle, or, more generally, on the meaning searching disposition of the human mind.

3. Practical temporal analyses

The test for any theoretic proposals is their applicability to practical textual analysis. We shall in the following apply the analytic principles proposed above, particularly principles (7) and (8), to several passages taken from various sources.

Unbounded propositions. Principle (7) takes account of unbounded propositions. To show how it works, we shall apply it to the following three passages:

(1) Hemingway, E.:

- 1) "See, it's a boy, Nick", he said.
- 2) "How do you like being an interne?"
- 3) Nick said, "All right".
- 4) He was looking away so as not to see what his father was doing.

(2) Partee, B. (1984: 254):

- 1) Jameson entered the room, shut it carefully, and switched off the light.
- 2) It was pitch dark around him, because the Venetian blinds were closed.

(3) Mansfield, K.: *A Married Man's Story*:

- 1) While I am here, I am there ...
- 2) And all at once I am arriving in a strange city...
- 3) I am brushing through deserted gardens,
- 4) I am standing on the dark quayside, giving my ticket into the wet, red hand of a sailor...

In the first passage, it is the events reported in sentence (4) that do not, at the first glance, reveal their temporal relation to the event reported in sentence (3). Is Nick's looking away sequential to his utterance *All right*, or is it its background? Principle (7) interprets it as the background to Nick's utterance, since it says that an unbounded proposition is via its internal reference time to be related to the last established reference time as simultaneous. The last established reference time before the reception of sentence (4) includes the event predicated in sentence (3). If we identify the internal reference time of the proposition (*he be looking away*) with the inclusive reference time of the proposition (*Nick say*), it follows that the event of sentence (4) overlaps or includes the event of sentence (3): Nick's looking away is the background to his utterance *All right*. I think that this is the way in which native speakers of English interpret the temporal relations predicated in these two sentences.

In the second passage we are concerned with the propositions (*Jameson switch off the light*) and (*it be pitch dark around him*). If no exception had been allowed to principle (7) identifying the reference time of the newly-added unbounded proposition with the last established reference time, we should have had to assume that the state of darkness overlaps the switching off of the light. But as principle (7) states that semantico-pragmatic relations override the central part of this rule, the cause and effect relation between the two events forces us to move the reference time one step forward, which places us inside, if only minimally so, the state of darkness because the unbounded proposition (*it be pitch dark around him*) requires an internal reference time, which makes us construe the state of darkness as following the switching off of the light. Please note that there is no such semantico-pragmatic relation between the proposition (*the Venetian blinds be closed*) and (*Jameson switch off the light*), which allows the state of the closed blinds to be construed as overlapping the switching off of the light although we identify its

internal reference time with the last established one, namely with the internal reference time of (*it be pitch dark around him*).

In the third passage the basic rule of principle (7) would interpret the propositions (*I be brushing through deserted gardens*) and (*I be standing on the dark quayside*) as simultaneous. But the relation of temporal incompatibility between the two propositions prevents this and the two states are interpreted as sequential.

Bounded propositions. The integration of bounded propositions into the temporal structure of a text presents greater difficulties than the integration of unbounded ones. As mentioned above an automatic progression principle was postulated for this type of proposition claiming that bounded events in successive sentences cannot be simultaneous.

That there is no automatic progression principle for bounded propositions or event sentences appears from the following passage adapted from the New Testament:

- 1) Christ died at three in the afternoon.
- 2) The curtain of the temple was torn in two.

We interpret these sentences as non-sequential because we do not conceive of them as causally related. The second sentence is rather meant to reveal the meaning and importance of the event reported in the preceding sentence.

On the other hand, the two sentences of the following passage

- 1) Mary opened the window.
- 2) John shut it.

are necessarily sequential, not because of the boundedness of their propositions, but because of the semantic relation of temporal incompatibility holding between them. And the temporal relations holding between the propositions of the last passage to be discussed here

- 1) A bomb exploded.
- 2) The window splintered.
- 3) The door flew open.
- 4) Mary and Bob were thrown to the floor.
- 5) Bob got up to his knees, to his feet, stumbled over Mary, drew her up and shoved her out of the room.
- 6) The ceiling came down.

are also primarily determined by semantico-pragmatic relation. Sentence 1) asserts a global event, the explosion of a bomb, which is particularized by the events asserted in sentences 2), 3), and 4). Their reference times are included in the reference time to be postulated for the global event. The first event of sentence 5) is temporally incompatible with 'Bob on the floor' and, consequently, follows it. And getting up to his feet can only follow his being on his knees. Stumbling over Mary presupposes his being on his feet. Drawing Mary up presupposes both

Mary lying on the floor and Bob being on his feet. Shoving Mary out of the room presupposes her being on her feet, and the events reported in sentences 4) and 5) can only have happened before the ceiling comes down in sentence 6). It is the semantico-pragmatic evaluation of each new sentence against the background of the information so far endorsed through the analysis that apparently controls the reconstruction of the chronological order of the event.

Temporal structures represented as textual scores. In Schopf (1984: 360 ff.) graphical diagrams were proposed for the representation of the temporal structure of narrative text. They proved rather unwieldy and were in Schopf (1987) supplanted by a more abstract notational representation. For the following passage taken from Richard Wright's *Native Son* (1940, Penguin 1972: 137)

- 1) He went down the steps to the vestibule and into the street.
- 2) It was white and cold.
- 3) Snow was falling and an icy wind blew.
- 4) The streets were empty.

it looks as follows:

$$\begin{array}{l}
 \Sigma^1_1: \quad (R1 < S)^1 (R1 \supset E: \text{he go ... into the street})^2 \\
 \quad \quad (R2 = R1_{tf}) \\
 \quad \quad (R2 < S)^1 \{ (R2 \supset E: \text{he notice p}^2\text{-6})^2 \} (R2 = S')^3 \\
 \Sigma 2: \quad (S' = R2')^4 [(R2' \subset E': \text{it be white and cold})^5] \\
 \Sigma 3: \quad [(S' = R2')^4 (R2' \subset E': \text{snow fall})^5] \\
 \quad \quad [(S' = R2')^4 (R2' \subset E': \text{an icy wind blow})^5] \\
 \Sigma 4: \quad [(S' = R2')^4 (R2' \subset E': \text{the streets be empty})^5]
 \end{array}$$

The diagram makes use of Reichenbach's symbols for speech, reference, and event time, of the mathematical symbol for 'smaller than' expressing here anteriority, and the set theoretical inclusion symbols (\supset , \subset).

The first line of the diagram assumes a past reference time in the narrator's deictic field, R1, to which the Event E (*he go ... into the street*) is related as simultaneous and included in it, whereby the simple form and the past tense is registered. The next reference time, (R2), is identified with the termination phase of the first event or the reference time which includes it (R1_{tf}). It is the time of the narrated person's act of perception. The act of perception is not directly reported in the text, which is indicated by the inclusion of parentheses 2 in braces. Parentheses 3 introduce the narrated person's deictic field or his present (S'). All the propositions that follow have reference times falling together with the act of perception (S' = R2') and they overlap it (R2' contained in E'), which represents the present tense in the secondary deictic field, and, in addition to this, internal tensing, i.e. the choice of the progressive for processes and the simple form for states. In accordance with principle (7) the diagram relates all the unbounded events to the same reference time, which they also overlap.

Reconstructing the text from the diagram. The diagram is expected to convey all the information necessary for the reconstruction of the original text, which will be attempted in the following:

The reconstruction starts with the last proposition in the diagram's secondary deictic field (*the streets be empty*). The student using the diagram as a teaching device is expected to recognize the aspectual character of the proposition, which may not at all be as easy as in the case at hand, where the state character of the proposition is all too apparent. States are unbounded and require internal tensing, which is indicated in the diagram by the inclusion of the reference time of the state in its event time (parentheses 5). The student is expected to know that internal tensing of states requires the simple form in English. The reconstruction moves on to parentheses 4. There the reference time of the state proposition is identified with the narrated person's present ($S'=R2'$), which symbolizes the choice of the present tense for the secondary deictic field: *the streets are empty*. The reconstruction then moves one line up. The proposition in parentheses 5 there is a process, which, if tensed in the same way as the proposition just tensed, leads to the progressive: *an icy wind is blowing*. The proposition in the next line up is also a process and yields: *snow is falling*. The proposition another line up is a state and yields the simple present because it is a state: *it is white and cold*. Parentheses 3 in the next line up identify the narrated person's present with a past reference time in the narrator's deictic field ($R2=S'$), which triggers the embedding of the secondary deictic field into that of the narrator. This is achieved by the transposition of tenses, pronouns and adverbials etc. according to the transposition rules for the various speech and thought presentation categories as, for instance, formulated in Steinberg (1971). Substitutionary perception (Fehr 1944), as we have it in sentences 2 to 4, transposes the present tense of the secondary deictic field into the past tense. And as the proposition in the uppermost line is tensed as simultaneous with a past reference time in the primary deictic field and is included in this reference time, its textual reconstruction yields a primary past (not derived by transposition from a present tense).

The text so far reconstructed differs from Wright's text only in so far as it contains two progressives in sequence - *snow was falling and an icy wind was blowing* -, what Wright avoids for euphonic reasons: we are faced again with the intricacies of the use of the simple and progressive form in English.

The reader may feel disappointed that the diagram suggested above registers only the results of the temporal analysis and fails to specify in detail the logical and computational operations that yield these results. To attempt this would apparently require a much more complicated procedure and notational apparatus. Yet such an attempt suggests itself in view of the fact that the positioning of the reference time for each newly-added sentence, i.e. its integration into the temporal web of the narration, is as a rule the result of an extremely complex mental operation. For the present, the analytic procedure and notational devices suggested in the preceding deserve perhaps testing whether they can be applied to the temporal analysis of narrative texts in other languages than English.

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INVARIANT MEANINGS AND CONTEXT-BOUND FUNCTIONS OF TENSE IN SPANISH

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Abstract

The question of the basic meanings conveyed by tense-mood-aspect (TMA) verb morphology as opposed to the meanings and pragmatic implicatures which these forms appear to have in specific contexts of use is a recurrent theme in studies of verbal systems. This paper examines this question in Spanish; its thesis is that TMA morphology may and must be characterized by means of invariant systemic meanings, which account for the choice of one tense form over another in a particular discourse context. Examined here are the tense and aspect parameters which define the Spanish-specific simple tenses usually grouped under the Indicative mood. It is shown that the choice of TMA morphology, and the inferences allowed by its combination with linguistic and extralinguistic elements are strongly restricted by the specific context and by the decontextualized meaning that the forms have within the total verbal system of the language in question.*

0. Introduction

The question of the basic meanings conveyed by tense-mood-aspect (TMA) verb morphology as opposed to the meanings and pragmatic implicatures which these forms appear to have in specific contexts of use is a recurrent theme in studies of verbal systems. There seems to be general agreement that a distinction between basic, invariant, or systemic meaning, and secondary, implicated, or non-systemic meanings or functions must be made (Bello 1977, Bull 1971, Comrie 1985, Dahl 1985). By contrast, there is no unquestionable proposal as to what exactly constitutes the semantic substance of TMA, nor about which language-specific 'tenses' instantiate them. This paper examines this question in Spanish;¹ its thesis is that TMA morphology may and must be characterized by means of invariant systemic meanings, which account for the choice of one tense form over another in a particular discourse context. TMA interacts with other linguistic and with extra-linguistic elements which contribute to multiple sentential and/or discourse meanings which are, nevertheless, compatible with the basic semantics of TMA morphology. Examined here in some detail are the Spanish-specific tenses labelled Present Indicative (PI), Preterite (P), Imperfect (I), Conditional (C), and the morphological (MF) and periphrastic Future (PF), i.e. the simple tenses usually grouped under the Indicative mood (see note 1).

I assume that the intensional invariant meaning of the Spanish tenses may be described with reference to the T, M, and A parameters. Consequently, I examine first the definitional properties of these categories, and then propose which tenses

encode them in their meaning. I further propose the existence of three meaning components or types of meaning: a) de-contextualized, systemic invariant meaning; b) contextualized meaning; and c) prototypical discourse meaning. These meaning components are not specific to TMA, but characterize all linguistic elements; contextualized and prototypical meanings are proposed to be related to decontextualized invariant meanings in systematic, principled ways which need to be empirically ascertained.

This paper shows that, in accordance with the constraint that invariant meanings must be compatible with discourse meanings, not all tenses include all three categories (T, M, and A) in their definitional properties. Indeed, although the invariant definitional properties of a tense may be neutral in regards to a given category, any of the values of this category or implicated features of these values may correspond to the prototypical uses of the tense (cf. Dahl 1985: 9-10) *in specific discourse contexts or genres* (cf. Silva-Corvalán 1984). Once the TMA categories are established, then the problem at hand involves determining which of the values of these categories constitute the invariant meanings of the tenses of any given verb system.² These meanings are identified by examining the tense system in discourse contexts of opposition. A scrutiny of actual data further allows us to unravel some of the contextually relevant factors that appear to determine the contextual and prototypical meanings associated with TMA morphology.

Within the theoretical assumptions presented, I proceed to examine two of the three definitional parameters of verb morphology, tense and aspect, assuming at the outset the following semantic characterizations: 1. *Tense* is the grammaticalization of location in time (Comrie 1985); 2. *Aspect* refers to the different ways of viewing the internal temporal constituency of a *situation* (Comrie 1976). *Mood*, the grammaticalization of the encoder's subjective attitude toward the degree of assertivity of the situation, is referred to only briefly.

1. Tense

Comrie (1985) incorporates the notions of *relative*, *absolute*, and *absolute-relative* tenses in his cross-linguistic study of tense. Absolute tenses locate a situation in time relative to the present moment; absolute-relative tenses locate a situation in time relative to a reference point which is in turn established (absolutely) to be before or after the present moment; while with pure relative tenses the reference point is some point in time given by the context, not necessarily the present moment.

The tense system grammaticalizes the notions of *present*, *past*, and *future* (cf. Comrie 1985) with respect to three reference points needed to characterize the various tenses: moment of speech, moment of the situation, and another reference point (or points).³ We can talk about the time of a situation being present, past, or future relative to the time of another situation (a reference point), but also, "in more absolute terms, relative to the present moment" (6). The present moment has the speech situation as its deictic center; it includes situations which are "currently ongoing" (6).

I would like to argue that a fourth point of reference is needed to charac-

terize the use of tense meanings in context. In order to account for this, I introduce a *pragmatic axis of orientation* (axis-2), that is, a time point established either lexically or by the discourse context, which locates the moment of speech at a time other than the present moment.⁴ Language, then, allows us to create a present moment not simultaneous with the extralinguistic real-world present moment. This axis-2 accounts for the occurrence of, for instance, preterite and present perfect in Spanish, both absolute pasts relative to the present moment, in situations which are in fact posterior to the present moment. The establishment of an axis-2 is constrained by a strict pragmatic condition: the proposition is assertive and corresponds to an experienced situation. Exx. 1- 2 are illustrative:

- (1) *Rodrigo ya ha terminado de jugar [soccer] a fines de mayo.*
 lit. Rodrigo already has finished of to play [soccer] by the end of May.
 'Rodrigo will have finished playing [soccer] by the end of May.'

Speech time: much before the end of May (February, for instance).

Axis-2 speech time: 'by the end of May'.

Event time: Anterior to axis-2 - Tense: present perfect.

- (2) *Mira, te tomas esta pastilla y en 5 minutos se te pasó (P) el dolor.*

'Look, you take this tablet and in 5 minutes the pain is (lit. was) gone.'

Speech time: before the interlocutor's taking of the tablet.

Axis-2 speech time: '5 minutes after you take this tablet'.

Event time: Anterior to axis-2 - Tense: Preterite.

Examples of this type justify the need to postulate an axis-2 if we want to maintain that the notion of past is in the invariant temporal meaning of Preterite and Present Perfect (PP). Otherwise, we would be forced to characterize absolute tenses (such as P, and PP) as having cancellable temporal values, a solution which is less preferred because it does not explain, as the pragmatic axis does, why these values may be cancelled.

In Spanish, absolute-relative tenses encompass the Conditional (as future in the past), Indicative compound forms,⁵ and possibly the simple and compound Present and Imperfect Subjunctive. Relative tenses comprise the non-finite forms. Absolute tenses include Preterite, the morphological and periphrastic Future Indicative and, perhaps, the Present Perfect.⁶ It is not quite clear, however, if tense meanings are to be defined independently of context, as suggested by Comrie (85: 26), whether present and imperfect indicative should indeed be part of the tense system and, if so, whether they are absolute tenses.⁷

Strictly, neither the PI nor the I locates a situation in the present, past, or future time absolutely with respect to the present moment. Both tenses need a point of reference external to themselves to locate a situation in a specific time relative to the present moment. Indeed, the PI and the I appear to be both absolute and absolute-relative tenses. Both include the present moment as their deictic center; as absolute tense the PI is *universal* (i.e., it asserts the validity of the situation at all times), while the I is *past* (i.e., it asserts that the situation was valid in the past. Because of its imperfective aspect, the I does not exclude the present and future validity of the situation, however). As absolute-relative tenses both PI and I need a further point of reference to establish their specific absolute past,

present, or future time. I propose the basic absolute tense meaning of the PI to be *universal tense*; in its prototypical use in everyday language the PI presents a situation as valid or true at all times, including the moment of speaking, but not necessarily *ongoing* at this moment (see my discussion of ex. 3 below). Thus, contrary to Comrie (85: 40), I am claiming that languages may and some indeed do grammaticalize a universal tense; in Spanish, for instance, in the imperfective simple present. The lexical meaning of the verb or the extralinguistic context may cause us to infer that the situation is ongoing at speech time, but this is a *contextual meaning*. Thus, in *Juan llega* (PI) 'John arrives', the punctual lexical aspect of *llegar* appears to disallow the universal tense interpretation, but this interpretation is the preferred one in the appropriate conversational context for the occurrence of *Juan llega (al alma)* 'John gets to people's heart (lit. 'John arrives to the heart)'. Note, by contrast, that without any further context, *Juan sale* (PI) 'John goes out' is more readily interpreted to have the universal tense interpretation of 'he goes out at all times', i.e. to parties, movies, or other forms of entertainment, perhaps because in this interpretation *salir* 'go out' retains its basic meaning of physical movement, while *llegar* in *Juan llega (al alma)* 'John gets to the heart' does not, and thus needs a clarifying context to prompt the universal tense interpretation. The universal tense property of the PI accounts for its frequent use in the expression of general truths and habituality.

Independently of context, and in contrast with PI and I, only P and MF/PF locate a situation as specifically anterior or posterior to the present moment without recourse to a further point of reference. Methodologically, it is difficult to consider TMA meanings independently of context since the lexical meaning of the verb itself creates a context. Keeping the verb constant, however, we may create some sort of context-free examples such that our interpretation of their time location would correspond to their absolute tense meaning. This is the assumption underlying exx. 3-7.

- | | | |
|-----|-------------------------------|------------------------------|
| (3) | <i>Pepe canta</i> (PI). | 'Pepe sings (PI).' |
| (4) | <i>Pepe cantaba</i> (I). | 'Pepe used to sing (I).' |
| (5) | <i>Pepe cantó</i> (P). | 'Pepe sang (P).' |
| (6) | <i>Pepe cantará</i> (MF). | 'Pepe will sing (MF).' |
| | <i>Pepe va a cantar</i> (PF). | 'Pepe's going to sing (PF).' |
| (7) | <i>Pepe cantaría</i> (C). | 'Pepe would sing (C).' |

In the absence of a relative point of reference, the only possible interpretation of ex. 3 is as an assertion of the fact that Pepe sings, a situation which is valid at the present moment, and whose validity extends before and after the moment of speaking. But the situation is not characterized as ongoing at the moment' of speaking, i.e. as having specifically present time. This latter interpretation requires a further reference point, established either lexically (ex. 9), or contextually (interlocutors hear Pepe singing). The Present Progressive, by contrast, is an absolute present in that, outside a communicative context, it characterizes a situation as simultaneous with the moment of speaking.⁸ Thus, though ex. 3 may in context be synonymous with ex. 8, as shown in ex. 9, note that only ex. 3 may be qualified

as in 10, but the same adversative conjunct is incompatible with a main clause in the Present Progressive, as illustrated in ex. 11.

- (8) *Pepe está cantando.*
'Pepe is singing.'
- (9) *Pepe canta ahora/en este momento.*
lit. Pepe sings now/at this moment.
- (10) *Pepe canta, pero no (está cantando) en este momento.*
'Pepe sings, but (he's not singing) at this moment.'
- (11) **Pepe está cantando, pero no (está cantando) en este momento.*
*'Pepe's singing, but he's not singing at this moment.'

Example 4 constitutes a weaker assertion of the proposition *Pepe sing*; it is interpreted to characterize a situation as valid before the present moment, with no commitment as to its present or future validity. Thus, in the real world a speaker may qualify ex. 4 by saying *yo creo que todavía canta* 'and I think that he still sings', but this qualification would be redundant and thus anomalous in ex. 3.

In regards to contextualized tense meanings, on the other hand, the PI may be an absolute-relative present (ex. 9), past (ex. 12), or future (ex. 13), all compatible with its invariant universal tense meaning. The I is an absolute past (ex. 4), but in contemporary Spanish it may also be an absolute-relative future (ex. 14-15), in contexts which formal written Spanish would reserve for the Conditional (ex. 16 a, b). The imperfective aspectual meaning of the I, which leaves the present and future validity of the situation open, most likely accounts for the extensional uses of this form in contexts of posteriority relative to the moment of speech, as in ex. 14, or relative to a past situation, as in ex. 15.

- (12) *Ayer, aparece este tipo en la puerta y todo el mundo se asusta.*
'Yesterday, this guy shows up at the door and everyone gets scared.'
- (13) *Pepe canta mañana.*
'Pepe sings tomorrow.'
- (14) *Pepe cantaba si se lo pides.*
lit. Pepe sang if you ask him.
'Pepe would sing if you ask him.'
- (15) *Pepe dijo que cantaba mañana.*
lit. Pepe said he sang tomorrow.
'Pepe said he would sing tomorrow.'
- (16) a. *Pepe cantaría si se lo pides.*
'Pepe would sing if you ask him.'
- b. *Pepe dijo que cantaría mañana.*
'Pepe said he would sing tomorrow.'

Returning to examples 5 and 6, we note that P, and F (MF and PF) locate the time of the proposition *Pepe sing* in the past, and in the future, respectively. These tenses only require the moment of speech as a deictic center to place the time of the situation as specifically anterior or posterior to it: they are the only specific absolute tenses in this respect. Interestingly, as I show later, these two tenses share a further invariant property: perfectivity.

Table 1. summarizes our proposals regarding the tense characterization of non-compound Indicative forms in Spanish.

Table 1. *Invariant and contextual tense meanings of non-compound Indicative forms*

	<i>Invariant</i> (Absolute)	<i>Contextual</i> (Absolute-relative)
Present Indicative	universal	present, past, future
Preterite	past	past
Imperfect	past	past, future
Morphol. Future	future	future, (present, as modal)
Periphrastic Fut.	future	future
Conditional		future of past/present

2. Aspect

It is well-known that the internal temporal constituency of a situation, i.e. its *aspect*, may be marked at various levels: morphologically, lexically, and syntactically, i.e. at sentence level (cf. Smith 1983). Lexical aspect differentiates between *cyclic* and *non-cyclic* 'events' (Bull 1971),⁹ roughly corresponding to *durative and punctual*, between *stative* and *dynamic* situations, etc.; the *progressive-nonprogressive* opposition is expressed periphrastically¹⁰ in many languages; and the aspect of a situation may also be characterized as *achievement* or *accomplishment* (Vendler 1967:102-103) at the sentence level. In addition, many languages encode a *perfective-imperfective* (Pf-Imf) aspectual opposition by means of verb morphology, as illustrated in the Spanish exx. in 17 and 18.

- (17) *Pepe habló mucho* (P, Pf). 'Pepe talked a lot.'
 (18) *Pepe hablaba mucho* (I, Imf). 'Pepe used to talk a lot.'

I concern myself here with the basic (context-independent) meaning of this aspectual opposition, an issue discussed at some length in the literature though not completely resolved.¹¹ Comrie (1976: 16), for instance, states that 'perfectivity indicates the view of a situation as a single whole, without distinction of the various separate phases that make up that situation, while the imperfective pays essential attention to the internal structure of the situation.'

This 'totality' view of perfectivity has been criticized by Dahl (1985: 73-79),¹² who notes that it 'is not wholly adequate even for those languages where 'totality' comes closer to describing' the perfective-imperfective contrast. Dahl adds that paying attention to the internal structure of the situation 'is a rather cryptic formulation' (76), and concludes 'that the crucial factor is not 'totality' but something else'. He does not make an explicit proposal for what this 'something else' might be, however. Constrained by his data, obtained in response to contextualized questions, he offers a prototypical, context-bound definition of a perfective verb

as one that denotes 'a single event, seen as an unanalysed whole, with a well-defined result or end-state, located in the past. More often than not, the event will be punctual, or at least, it will be seen as a single transition from one state to its opposite, the duration of which can be disregarded.' (78)

In some respects contrary to both Comrie's and Dahl's definitions, I would like to propose that the morphological opposition Pf-Imf is yet another manifestation of the fundamental human concepts of stativity and nonstativity,¹³ in the following sense: the imperfective is stative inasmuch as it characterizes a situation as temporally suspended in its existence, without pointing to its beginning or end, i.e. without any connotation of change. The perfective, by contrast, is dynamic in that it characterizes a situation as a complete unanalysed whole, with a beginning, a middle, and a well-defined end-state (cf. Comrie 1976), i.e., it necessarily implies change or transition into and out of the situation (cf. Dahl 1985). Furthermore, I will show that morphological aspect may combine with lexical, sentential, and discourse aspects with opposite values. These combinations result in contextual meanings which are frequently, but wrongly considered to be part of the systemic meaning of the verbal morpheme (e.g. an imperfective morpheme, attached to a punctual, dynamic verb in the complicating action of a narrative has a contextual meaning of *repeated event*).

The prototypical uses of Pf and Imf morphemes, i.e. their most frequent contexts of occurrence in specific discourses, are *accounted for* but do not constitute their invariant meaning: non-dynamic verbs (e.g. *estaba/era* 'was', *creía* 'believed', *quedaba* 'was located', *sabía* 'knew', *tenía* 'had') occur most frequently in stative, imperfective contexts, while the opposite holds in the case of dynamic verbs (e.g. *abrió* 'opened', *entró* 'went in', *se levantó* 'got up', *quemó* 'burnt'). However, lexical aspect or other contextual factors allow a number of other interpretations: for instance, habituality, simultaneity, and iterativity are frequently associated with the Imf quite naturally because of its stativity meaning; sequentiality and punctuality, on the other hand, tend to be implied by the Pf. Nevertheless, it is easy to provide examples which show that these other aspects are not included in the invariant meaning of the Pf-Imf morphological opposition:

- (19) *Durante esos años Diego jugó (P, Pf) mucho soccer.*
'During those years Diego played a lot of soccer.'
- (20) *Lo pasamos estupendo en la playa: conversamos (P,Pf), nos asoleamos (P,Pf), y jugamos al naípe (P,Pf).*
'We had a great time at the beach: we talked, sunbathed, and played cards.'
- (21) *El hombre parecía estar loco: abría (I,Imf) la caja, metía (I,Imf) la cabeza, y la sacaba (I,Imf) llena de harina.*
'The man seemed to be crazy: he'd open the box, would stick his head inside, and his head would come out covered with flour.'

In ex. 19 a Pf form occurs in a context of past habituality, while the Imfs in ex. 21 do not; the situations in ex. 20 are inferred to have occurred simultaneously despite the Pf marking, which has been proposed to have an important 'event sequencing' function (cf. Hopper 1982: 5-16); but those in ex. 21, with Imf forms, are inferred to be a) sequential, on the basis of our general knowledge about

the world, and b) repetitive, an inference drawn from marking a punctual or cyclic verb with Imf morphology, i.e. punctual *Aktionsart* plus temporally extended/suspended, stative, non-dynamic Imf meaning must be interpreted, if interpretable at all, to be repetitive.¹⁴

If aspect is 'a semantic property of sentences' (Smith 1983: 480), a further question arises in regards to Pf-Imf aspect, namely what is its effect on or compatibility with the arguments and adjuncts of the situation. In Russian, for instance, the Pf requires a definite or specific object with certain verbs (Dahl 1985: 75). Likewise, Spanish shows interesting restrictions on the cooccurrence of Pf with a non-specific set of object referents as well as with inanimate subjects with verbs of reporting, as illustrated by exx. 22-28:

- (22a) *El letrero decía (I,Imf)/*dijo (P,Pf) que no se podía doblar a la izquierda.*
 'The sign said that turning left was not allowed.'
- (22b) *El policía decía (I,Imf)/dijo (P,Pf) que no se podía doblar a la izquierda.*
 'The policeman said that turning left was not allowed.'
- (23) *Lo invitaba (I,Imf) a uno, y después se olvidaba.*
 'He¹d invite you, and then¹ he'd forget.'
- (24) *Lo invita (PI,Imf) a uno, y después se olvida.*
 'He¹ invites you, and then¹ he forgets.'
- (25) *Lo invitará (MF,modal) a uno, pero después se olvida.*
 'He¹ll invite you, but then he forgets.'
- (26) *(*Lo_i) invitaba/invita/invitará a uno_i, pero después se olvidaba/olvida/olvidará.*
 'He invited/invites/ll invite one, and then he forgot/forgets/ll forget.'
- (27) *(*Lo_i) invitará (MF,Pf)/va a invitar (PF,Pf) a uno_i, y después se olvidará/va a olvidar.*
 'He'll invite/s gonna invite one, and then he'll forget/s gonna forget.'
- (28) *(*Lo_i) invitó (P,Pf) a uno, y después se olvidó.*
 'He¹ invited one, and then¹ he forgot.'

Examples 22a and 22b illustrate the restriction to Imf past, i.e. to stative morphological aspect, with verbs of reporting whose subjects are inanimate. This restriction is ultimately motivated by the fact that inanimate subjects are not viewed (in a normal world) as entities capable of carrying out dynamic acts of reporting.

The constraint on the degree of boundary specificity of the object is shown by exx. 23-28. PI, I, and modal MF may cooccur with a non-specific object pronoun (exx. 23-25) whose meaning is 'speaker plus others'. Impersonal *te* 'you', meaning 'interlocutor plus others', is also possible in these examples, as well as *todos* 'everyone' and *algunos* 'some'. The common thread is plurality of the object referent, and the possibility of viewing this referent as a loosely bounded entity. I have chosen to illustrate this phenomenon with *uno* 'one', because this pronoun has a further cooccurrence restriction: a coreferential verbal clitic, *lo*, is allowed when *uno* means 'speaker plus others', but not when it is the singular pronoun or quantifier *one*.¹⁵ Thus, its unacceptability in exx. 26-28 clearly indicates that *uno* in these exx. refers to a single entity. These exx., therefore, show that both MF/PF

as well as P, all Pf in aspect, require an interpretation of the object with which they are in construction as a single and/or specific entity or as a single set of entities in the case of *todos* 'everyone' and *algunos* 'some'.

Indeed, the 'singularity' restriction appears to be quite naturally accounted for by aspect, a category shown to be sentential (Smith 1983) and concomitant with questions of specificity and agentivity (cf. Hopper and Thompson 1980). Accordingly, perfective forms, which present the situation as complete, would project this bounded perspective over the rest of the sentence constituents. By contrast, imperfective aspect characterizes the situation as static, suspended in time, without any specific reference to its boundaries; this aspect then allows a 'plurality' view of the object, as well as a less agentive interpretation of the subject.

In sum, Pf/Imf aspect is a defining parameter of the invariant meaning of every tense morpheme. The stativity vs. non-stativity meaning contributed by morphological aspect enters into combinations with antonymous or synonymous lexical, periphrastic and sentential aspects (e.g. punctual, durative, progressive, achievement) in a given communicative situation, leading to a number of contextual meanings (e.g. inception, iteration). At the level of discourse, aspect may also be dynamic or stative (e.g. the complicating action of a narrative constitutes a *discourse with dynamic aspect*, while the orientation has *stative aspect*). Discourse aspect does not cancel the invariant aspectual meaning of verbal morphemes, but it does impose constraints on their compatibility with certain types of arguments and adjuncts of the clause in question. Thus, the MF is Pf as a future tense but 'behaves' imperfectively in modal contexts^{16,17}, as illustrated in ex. 25. I, PI, and C may also occur in contexts with opposite aspectual values. Note that if these tenses are in the complement of a perfective form (ex. 29), or in a perfective discourse context (e.g. the complicating action in a narrative, a future situation), they 'behave' perfectly in regards to cooccurrence restrictions. In regards to the tenses under scrutiny in this article, then, only P and PF, both Pf, appear to be used only in Pf sentential and discourse contexts as well.

- (29) *Juan dijo que él (*lo_i) invitaría (C)/ invitaba (I) a uno_i.*
'John said he'd invite_i one tomorrow.'

Table 2. summarizes our conclusions regarding the aspect of Indicative tenses in Spanish.

Table 2. *Invariant aspectual meaning and contextual combinatorial possibilities of non-compound Indicative forms*

	<i>Invariant</i> (Absolute tense)	<i>Contextual</i> (Absolute-relative tense)
Present Indicative	Imperfective	Imf, Pf (past, future time)
Preterite	Perfective	Pf
Imperfect	Imperfective	Imf, Pf (future time)
Morphol. Future	Perfective	Pf, Imf (as modal)
Periphrastic Fut.	Perfective	Pf
Conditional		Imf, Pf (as tense)

Table 2. makes it clear that invariant Imf forms are compatible with a Pf or an Imf context. This may appear to be in contradiction with the concept of an invariant meaning. Note, however, that I have defined invariant meaning as *decontextualized*, pointing out that bound morphemes may enter into combination with contrary values such that these morphemes would appear to adopt opposite contextual meanings. This is not the case, however. Verb morphology is a complex bundle of TMA meanings which interact and allow for shifts of meaning and/or for focusing on one or another of these three parameters in specific contexts. Yet, the choice of a particular tense in a communicative situation, and its possible shift in meaning are strictly determined by the invariant properties which define that particular tense within the system. Accordingly, the Imf aspect and the weak assertiveness¹⁸ of the I make it possible for this tense to be used in future time contexts (ex. 30), but the choice of the I as opposed to, for instance, the PI or the PF is meaningful only because it may be explained with reference to the basic invariant meanings of the forms involved. In this sense, therefore, one may maintain that the meaning of a form is invariant, i.e. present in all its contexts of use.

- (30) *Pepe dijo que venía (I) mañana.*
'Pepe said he'd come tomorrow.'

3. TMA in discourse

Invariant meanings account as well for the prototypical uses of tenses. Prototypical properties are discourse sensitive, i.e., they must be defined with reference to specific discourse contexts or genres (e.g. descriptions of places, argumentation, story-telling, instructions). Definitional properties, by contrast, should be discourse independent and invariant.

Given the function of the components of a narrative (cf. Labov 1972), for instance, and the invariant meanings of Indicative tenses in Spanish, it is indeed possible to predict which of these tenses will figure either more prominently or exclusively in the different narrative sections.

Prototypically, the I presents stative background or orienting information in oral narratives (Silva-Corvalán 1983, 1984). The abstract, which summarizes the story, i.e., it conveys the most salient dynamic events, completed in the past, in a nutshell, is predictably encoded in the P, as illustrated in 31.a, and 32.b:

(31)

- a. *Sí, yo fui a Celaya. Fui a Celaya y entonces, después, otra vez atropelló (P) otro carro a mi hermano.*
 - b. *Venta (I) en la bicicleta dando la vuelta, cuando dicen (PI) que un, un,*
 - c. *Uno de esos carros de la, de la Coca-Cola lo aventó (P)*
 - d. *y fue a dar (P) arriba del prado (UNAM 1976:204)*
- a. 'Yes, I went to Celaya. I went to Celaya and then, afterwards, another time another truck hit (P) my brother.
 - b. He was (I) on his bicycle turning a corner, when they say (PI) that a, a
 - c. One of those trucks, from, from Coca-Cola hit him (P)
 - d. and he fell (P) on a lawn.'

(32)

- a. *Ese profesor las sabe (PI) todas. Se llama (PI) el De la Fuente. Se sabe (PI) todo, todo.*
 - b. *Lo pilló (P) a uno y lo dejó (P) paralizado.*
- a. 'That teacher knows (PI) all the tricks. His name is (PI) De la Fuente. He knows everything, everything.
 - b. He caught (P) one and left (P) him speechless.'

Example 32 contains the abstract of a narrative about cheating in school, told by a 16-year-old Chilean young man. Note that the use of the I in 32.b would change the function of the clauses from abstract to orientation, and the meaning of the pronoun *uno* from 'specific identifiable referent for the speaker' to the 'plurality' reading of 'speaker plus indefinite others'.

In the independent orientation sections the most frequent tense is, by far, the I. This function derives naturally from the stativity meaning of the *Imf* aspect. Orientation clauses in a narrative do not move the actions forward; they present situations as static, providing a background for the understanding of the dynamic events. This accords with the correlation between background clauses and imperfective aspect in Hopper and Thompson's (1980) framework, and also with the functions assigned to the I in grammars of Spanish (e.g. Alcina & Blecua 1980, Bello & Cuervo 1977).

However, orientation is not a definitional meaning of any tense form. On the one hand, the data show that other verbal forms share this function; and on the other, the I may also present foregrounded events in a different discourse genre: *exposition of past situations*, as illustrated in ex. 33.

(33)

- a. *Yo era la de todo, como si fuera un hombre. Eso es precisamente lo que yo les digo a mis hijos: "Abran los ojos -le digo-, porque cuando yo tuve un pedazo para sembrar, no nos moríamos de hambre", señorita. ¿Que amanecía sin dinero? ¿Que ...?*
- b. *Ya mi maíz estaba (I) grande; iba (I) y tumbaba (I) unas mazorcas, las desgranaba (I), las ponía (I) y izaz!, que me iba (I) a molerlas. Venía (I), les hacía (I) unas tortillas...*
- c. *Había (I) mucho nopal. Cortaba (I) hartos nopales tiemitos, los pelaba (I) y los asaba (I). (UNAM 1976:194-195)*
- a. 'I was everything, as if I were a man. That's precisely what I say to my children: "Open your eyes -I tell them-, because when I had a piece of land, we did not starve", miss. Any day I found myself with no money? That...?
- b. My corn was (I) already ripe; I'd go (I) and cut (I) some ears of corn, shed (I) the grains, put (I) them and zaz!, I went (I) to grind them. I'd come back (I), and I'd make (I) them some tortillas ---
- c. There were (I) a lot of prickly pear plants. I'd cut (I) many fresh prickly pear stems, I'd peeled (I) them, and roasted (I) them.'

Example 33 incorporates temporally ordered events (33.b and c), but lacks other features which appear to be necessary to define a narrative proper, namely a preface, a climax, and a resolution. This differentiation is important for our purposes. Indeed, note that in this discourse genre, which I have labelled *exposition of past situations*, the I refers to foregrounded, sequential, repetitive and habitual events. The specific contribution of the I is 'imperfective past'. Used in a discourse context of accomplishments (inferred to be sequential on the basis of our knowledge of the world), the only possible interpretation of temporal suspension/stativity is 'recurrence' (cf. ex. 21) of the situations. The larger conversational context, dealing with the speaker's earlier life, allows us to draw the further inference of habituality. Clearly, then, sequentiality and habituality are *discourse-pragmatic meanings*. However, given that in everyday interaction speakers usually engage in expositions of past events, it is not surprising that some of the meanings naively associated with the I include habituality and repetition. Habituality is cancelled, though, in the strictly orienting clauses of a narrative (ex. 31.b), when the I refers to narrative specific conditions, i.e., those which were true only at the time when the narrative events took place. In this context, the I is in opposition with the PI which, in accord with its absolute meaning of universal tense, is used to describe the participants and conditions not anchored to the time of the events in the narrative, but valid at all times, as in ex. 32.a.

By contrast, in the perfective context of the complicating action of the narrative, both the I and the PI are anchored to the time of the narrative events. Narrative clauses, which present complete, dynamic, usually singular situations, are typically coded in the P, however. We have shown that the I rather than the P is used when these actions occur repeatedly; the use of the PI, on the other hand, has been considered to contribute a rhetorical effect (cf. Schiffrin 1981, Silva-Corvalán 1983). Indeed, the PI co-occurs with the most climactic or dramatic events

in an oral narrative; it presents them as if they were occurring in front of our eyes. This is to be expected because of the universal tense and imperfective values of this form.

4. Conclusion

I have analysed TMA morphology in Spanish out of context, in context, and in specific discourse genres, and shown that contextual features may allow speakers to draw time and aspectual inferences that are not necessarily part of the invariant meaning of this morphology. Even further, contexts may also permit pragmatic inferences which apparently cancel some of the parameters that describe the invariant meaning of the forms. These cancellations are only apparent, however. Indeed, the choice of TMA morphology, and the inferences allowed by its combination with linguistic and extralinguistic elements are strongly restricted by the specific context and by the decontextualized meaning that the forms have within the total verbal system of the language in question.

Notes

- * I wish to thank Erica García and Jorge Guitart for their thought-provoking criticism of an earlier version of this paper.
1. The Spanish verbal system includes the forms given below (cf. Real Academia Española 1979: 262-264).

	SIMPLE		COMPOUND	
Non-finite forms:	INFINITIVE	mirar 'look at'	PERFECT INF.	haber mirado
	PRES.PART.	mirando	PERF.PRES.PAR.	habiendo mirado
	PAST PARTICIPLE	mirado		
Finite forms:				
<i>Indicative mood</i>				
PRESENT (él)	mira '(he) looks at'	PRES.PERFECT	ha mirado	
PRETERITE	miró	PAST PERFECT	bubo mirado	
IMPERFECT	miraba	PLUPERFECT	había mirado	
FUTURE	mirará	FUTURE PERF.	habrá mirado	
CONDITIONAL	miraría	CONDIT.PERFECT	habría mirado	
<i>Subjunctive mood</i>				
PRESENT	miré	PRES.PERFECT	haya mirado	
IMPERFECT	mirara/mirase	PLUPERFECT	hubiera/se mirado	
FUTURE	mirare	FUTURE PERF.	hubiere mirado	
<i>Imperative mood</i>				
PRESENT	mira '(you-sg.) look'			
	miren '(you-pl.) look'			

2. I am not faced with the added problem of deciding what signals to include in the study because I have delimited it to 'verbal inflections'.
3. Similar to Reichenbach's (1947) system, which also specifies three temporal points: *reference time*, *event time*, and *speech time*. In proposing de-contextualized basic tense meanings, I view *speech time* as an abstract reference point which does not constitute a context.
4. Dahl (85: 30) has also proposed a fourth point of reference, the *temporal frame*, which he characterizes as the time period during which the point/s of the event/s is/are located. I have not examined the relevance of this proposal for the description of TMA in Spanish.
5. Except the Present Perfect Indicative.
6. See note 7.
7. This could apply as well to the present perfect (semantically 'past with present relevance', Comrie, pp. 77-82), which, it seems to me, could be characterized as a perfective present in Spanish. This would explain its aspectual meaning of 'present relevance' and its implicated meaning of anteriority: if the situation is presented as reaching/having an end-state at the present moment, then it is necessarily anterior: *Pepe ha estado aquí* 'Pepe has been here' means that at a time anterior (but relevant) to speech time Pepe has been at a certain place.
8. In context, the Present Progressive may encode situations which in a strict sense are not ongoing at speech time, as in *Pepe está cantando cada día mejor* 'Pepe's singing better and better each day'.
9. According to Bull (1971), there are two classes of events, which he labels *cyclic and non-cyclic*. A cyclic event is one that cannot be labelled or defined until its termination has been reached and therefore it cannot be extended or repeated without going through all the phases of the cycle again (e.g. *entrar* 'to enter'). A non-cyclic event is observable at the instant of its initiation and can, in theory, be extended indefinitely (e.g. *dormir* 'to sleep').
10. I.e. by a combination of morphology and syntactic construction: *estar* + *-ndo* in Spanish, *be* + *-ing* in English.
11. See, among others, Bull (1971), Bolinger (1963), Guitart (1978), and Silva-Corvalán (1984) for discussions based on Spanish; Bybee (1986), Comrie (1976), Dahl (1985), and Hopper (1982) for a non language-specific approach as well as for further references.
12. Mostly based on an examination of some Russian examples elicited by means of a carefully designed questionnaire.
13. Stativity versus dynamicity has been suggested to be a psychologically salient notion in human language. Bickerton (1982) goes as far as to propose that this notional distinction is innate or 'bioprogrammed', i.e. part of the neurological structure of the human organism.
14. That opposite values are indeed allowed to combine is in itself interesting. Note that *dry water* or *colourless green* are semantically anomalous precisely because the constructions involve lexical items with contrary definitional features. It is likely that this restriction may not apply when the construction involves a lexical item plus a bound morpheme, as in the case of contrary lexical and morphological aspect (ex. 21).

15. This restriction is valid in Madrid Spanish, and in my own Chilean variety of Spanish. There seem to be varieties of Spanish which allow a coreferential *lo* with singular *uno*, as shown by ex. 32.
16. Halliday (1970: 337) has proposed that 'modality itself is not subject to variation in tense.'
17. These are indeed the most frequent contexts of use of the MF in spoken New World Spanish.
18. Inasmuch as it does not make a statement about the validity of the situation at the moment of speaking.

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THE 'FUTURE TENSE' IN MODERN HEBREW

Yishai Tobin

'In the literature of time reference and its linguistic expression, perhaps no issue has aroused more controversy than the identification of future tenses.'
(Comrie 1989: 51)

Abstract

In this paper, a sign-oriented analysis of the Modern Hebrew tense system in general, and the 'future' tense in particular, is presented. The tense system is viewed as an interlock of the encoder's spatio-temporal-existential conceptualization and sensory-experiential perception of actions, states and events at the 'here-and-now' point of encoding. The 'future' tense and its various temporal and non-temporal functions are first compared and contrasted with the 'past' and 'present' tenses followed by a discussion of the textual distribution of the 'future' vs. the 'historical present' in a series of texts.

I. Introduction

In this paper we shall follow a basic semiotic or sign-oriented theoretical and methodological linguistic approach which distinguishes between the *invariant* sign meaning of the so-called future tense in Modern Hebrew which *motivates* (i.e., will account for and explain) all its *variant* contextual and textual functions and messages. The use of this sign-oriented approach implies that the familiar traditional and neo-traditional categories attributed to verbs and verbal morphology (e.g., tense, aspect and modality) all form part of a larger interrelated continuum or set of deictic grammatical systems composed of a possible universal perceptual or cognitive spatio-temporal-existential cline related to how an encoder (speaker/writer) may view actions, states and events during the process of encoding a message within a larger discourse or text to a decoder (addressee/reader).

The use of this particular sign-oriented approach also has resulted in specific discourse, context and text-oriented models of linguistic analysis such as the 'from sign to text' approach which works its way up from sign and system to context and text and the converse 'from text to sign' approach which works its way down from text and context to sign and system representing two alternative ways of viewing 'the sign as text' and 'the text as sign' (Aphek and Tobin 1988, 1989; Contini-Morava 1989; Diver 1969; García *et al.* 1987; Tobin 1989a, 1990a). In short, we shall view the concept of Modern Hebrew tense as a complex semiotic system

composed of linguistic signs - morphological signals to each one an invariant meaning may be postulated - which can be placed in (at least) two interlocked paradigmatic relationships or semantic-grammatical systems exhaustively classifying semantic and the corresponding communicative domains related to how an encoder perceives experiences, actions, states and events. We shall further examine how the 'future' tense - with its many and various uses all of which are motivated by its systematic invariant sign meanings - functions within spoken and written texts of all stylistic registers in opposition to the 'historical present tense'.

II. The 'future' tense

The future tense as a universal linguistic and ontological or cognitive category has been the subject of much research and controversy both for language universals in general and for specific languages in particular (Comrie 1975: 43-8, 1989; Fleischman 1982, 1983). Yet, despite the great controversy associated with the concept of 'future tense' *per se*, numerous studies which have examined the evolution of its diverse uses, functions and messages in thought and language have clearly indicated that, like all the other so-called 'time-oriented' or temporally motivated tenses, the 'future tense' has various non-temporal uses as well as a temporal future use (Bybee and Pagliuca 1987; Dahl 1985, 1987). These diverse non-temporal messages typically associated with future tense morphology include: desire, intention, obligation, necessity, imminence, habitual, general truth, characteristic behaviour, command, polite request and supposition (Fries 1927; Kirsner 1969; Ultan 1978; Wekker 1976).

The so-called future-tense morphology in Modern Hebrew includes many of the various semantic and pragmatic functions listed above which have been associated with the future tense:

- (1) to designate future actions, states and events in which the future is in opposition with the so-called present tense;
- (2) to designate 'polite' requests, demands, directives or 'irrealis' or hypothetical actions, states or events in which the future is in opposition to the 'past' and 'present' tenses;
- (3) to designate 'positive imperative' messages in which the future is in opposition to traditional 'imperative' morphology;
- (4) to designate all 'negative imperative' messages;
- (5) to designate 'stronger' negative messages in which the future is in opposition to the 'infinitive' form which designates impersonal commands or directives;
- (6) to designate 'subjunctive-like' messages (wishes, desires, hopes, fears, doubts, etc.).

In this paper we will analyse all of the above uses of the so-called future tense morphology as it functions as part of larger semantically-motivated, interlocked paradigmatic grammatical systems based on the notion of invariant sign meanings. In particular, we will show how the exploitation of the future versus the past, present, imperative as well as the infinitive forms is motivated by the principle of isomorphism: i.e., the choice of each form is always motivated by its invariant meaning.

III. The Modern Hebrew 'tense' system

The system of Modern Hebrew tense is composed of morphology traditionally labelled according to the objective extralinguistic temporal categories of 'past', 'present' and 'future'. This temporal labelling of the tenses, at first glance, at least, seems to make sense: there often is an objective match between the 'real-world' time of the occurrence of an action, state, or event and the appropriately labelled tense used to signify it. It soon becomes apparent, however, that this objective match between time and tense does not always hold. One merely has to look at the most fundamental language data (e.g., the different uses of the future tenses listed in (1-6) above) in order to ascertain that the connection between time and tense in Modern Hebrew, as in many other languages, is far from being absolute, and an exclusive theoretical, categorical, or causal correlation between 'time and tense' should be considered, at best, as being highly questionable. If, indeed, it is the case that there are many and frequent examples where there is no objective correlation between time and tense, then one must reach the obvious conclusion that time really may not be the only motivating force behind the use of the Modern Hebrew tense system and, therefore, seek a more satisfactory explanation elsewhere to account for the more subjective use of tense morphology which is not time-related.

In this paper we will first briefly present an alternative sign-oriented analysis of the Modern Hebrew tense system based on invariant unitary meanings postulated for the Modern Hebrew 'past', 'present' and 'future' tense morphology to account for both the objective temporal matches of the linguistic signs with real-world time, as well as the frequent subjective non-match between these linguistic signs and the time of the actions, states and events they describe. Specifically, we will present a sign-oriented semantic analysis of the Modern Hebrew 'tense system' as a deictic phenomenon which will be based on a grammatical system whose semantic substance or domain deals with the placing of actions, states, or events in their deictic spatio-temporal-existential relation to the encoder at the point of speaking and/or writing: i.e., what traditionally has been referred to as: the 'here and now', *hic et nunc*, *moi-ici-maintenant* of the moment of encoding. I shall refer to this deictic system as the Space-Time-Existence System.

This Space-Time-Existence system is interlocked with another grammatical system whose semantic substance or domain deals with whether the actions, states, or events are/were accessible to the senses, or, alternatively, whether they are merely mental or emotional concepts residing in his 'mind' and 'heart' alone. I shall refer to this objective-subjective kind of deictic system as the System of Experience. A similar non-temporal oriented tense system based on the accessibility of actions, states, or events to the senses has been analysed for various languages, the most famous being Whorf's analysis of the 'timeless Hopi verb' which does not distinguish between the present, past, or future of the event itself, but must indicate the type of 'validity' the speaker wishes to express: i.e., a report, an expectation, or a generalization or law of the event. This alternative system may be viewed as a classification of the degree or type of accessibility of an action, state, or event to the senses of the speaker with regard to the hearer. All that which is accessible to the senses is referred to as the OBJECTIVE or MANIFESTED with no distinction

between present and past, but excludes everything we call future. The future will comprise, therefore, everything that is MANIFESTING (or UNMANIFEST) or SUBJECTIVE, i.e., everything that appears or exists in the mind or in the heart (Whorf 1950: 68-9).

Therefore, we will argue that the use of the so-called past, present and future tenses in Modern Hebrew is not determined by the objective time of the occurrence of actions, states, or events in the real world, but rather to the encoder's objective and subjective spatio-temporal-existential conceptualization (as related to sensory-experiential perception) of these actions, states and events at the 'here-and-now' point of speaking and/or writing. Thus, we maintain that the so-called tense system in Modern Hebrew is a deictic system that enables the encoder to categorise actions, states or events with regard to his spatio-temporal-existential and sensory-experiential point of view at the point of speaking/writing; or what Jakobson (1957/1971) refers to as *le procès de l'énonciation*.

IV. The analysis

The theoretical tenets used to analyse Modern Hebrew tense in this paper are based on the rather obvious (but often overlooked) premise that language is a device for human communication and that the structure and the very nature of language are a direct result of this communication function (Contini-Morava 1989; García 1975; Kirsner 1979). The two basic premises of this approach is that language is an instance of human behaviour and a device for human communication. This approach supports the general definition that language is a finite, flexible and open-ended 'system of systems' of linguistic signs used by human beings to communicate an infinite number of messages. Language, therefore, consists of semantic lexical or grammatical systems, each of which is organised internally and all of which are systematically related to each other. This interrelatedness of linguistic signs and systems is what enables speakers to learn, remember and exploit the language for their communicative needs: i.e., they are not learning a collection of independent forms and meanings but rather *a system of meanings* which motivates the distribution of linguistic signs in spoken and written discourse and texts.

We believe that the so-called system of verb tense in Modern Hebrew is based on two interlocked grammatical systems. Two or more grammatical systems are said to be interlocked when: (a) some or all of their signs are shared, and (b) these signs describe, from different points of view, the same lexical item. A familiar example of interlocked grammatical systems would be paradigmatic pronominal systems wherein each pronoun simultaneously signals information regarding person, number, and/or gender.

With regard to the interlocked grammatical systems of Modern Hebrew tense presented here:

- (1) The first system relates Modern Hebrew tense morphology to the deictic notions of time, space and existence. Thus, its semantic substance may be summarised as 'the placing of an action, state, or event in relation to the encoder at the point of speaking or writing, i.e., the 'here and now' of the speech act. The Modern Hebrew Space-Time-Existence system we are proposing here has two

invariant meanings which exhaustively classify this semantic substance in the following way:

- (a) PROXIMATE - which is invariably paired to the so-called present tense morphology - places an action, state, or event in spatio-temporal-existential proximity to the encoder;
 - (b) REMOTE - which is invariably paired to the so-called past and future tense morphology - places an action, state, or event in spatio-temporal-existential distance from the encoder.
- (2) The second system relates Modern Hebrew tense morphology to the deictic notion of perception or experience. Thus, its semantic substance may be summarised as to whether 'an action, state, or event has been experienced or is/was accessible (or 'manifest') to the senses at the point of speaking or writing, i.e., the 'here and now' of the speech act'. The Modern Hebrew system of Experience we are proposing here has two invariant meanings which exhaustively categorise this semantic domain in the following way:
- (a) EXPERIENCED - which is invariably paired to the so-called present and past tense morphology - signals that the action, state, or event has been perceived or experienced;
 - (b) NOT-EXPERIENCED - which is invariably paired to the so-called future tense morphology - signals that the event/action/state has not been perceived or experienced.

Thus, in this analysis of the Modern Hebrew tense system based on two inter-locked grammatical systems:

- (a) the so-called present tense morphology simultaneously signals the meanings PROXIMATE and EXPERIENCED;
- (b) the so-called past tense morphology simultaneously signals the meanings REMOTE and EXPERIENCED;
- (c) the so-called future tense morphology simultaneously signals the meanings REMOTE and NOT-EXPERIENCED.

The emphasis on studying language both as a device of communication and a specific instance of human behaviour has fundamental theoretical and methodological implications (Tobin 1990a: chaps. 1-4). One of the most important of these is related to the particular exploitations of postulated vague and abstract invariant sign meanings to communicate specific discourse messages in different linguistic and situational contexts. In particular, linguists of the Columbia School view the notion of invariant meaning as being exploited for the purpose of 'subjective comment': i.e., the encoder may use one sign as opposed to another in order to tell us something about his own attitude towards the scene - as opposed to merely giving an objective description.

A primary example of subjective comment might be the exploitation of the opposed meanings of the systems of Space-Time-Existence and Experience in Modern Hebrew in order to allow an encoder to indicate his individual perception of actions, states, or events at the time of speaking or writing - regardless of the actual time of their occurrence in the real world. Thus, the consistent and systematic preference of one verb tense over another - e.g. the use of either the 'future' or the 'present' tense to describe actions, states, or events which have not taken place, or the use of all three tenses to reflect different kinds of wishes, requests, directives,

commands and imperatives - may tell us something about the encoder's attitude towards these actions, states, or events, wishes, commands or directives and/or indicate his particular world view or his assessment of the speech situation and/or the relationship between the encoder and the decoder.

V. The data: from sign to context

As we have previously stated, the so-called future-tense morphology in Modern Hebrew includes many of the temporal and non-temporal semantic and pragmatic functions which traditionally have been associated with the future tense. We will now return to the original examples (1-6) of the uses of the future tense and discuss them according to our postulated analysis:

- (1) To designate future actions, states and events in which the future tense is in opposition with the so-called present tense:
 - (a) *ba-kayits ani nosea le-eiropa levalot* (present tense)
In the summer *I'm going* to Europe to enjoy myself.
 - (b) *ba-kayits esa le-eiropa levalot* (future tense)
In the summer *I'll go* to Europe to enjoy myself.

In the above minimal pair, the choice of either the 'present tense' invariant meaning (PROXIMATE/EXPERIENCED) versus the 'future tense' invariant meaning (REMOTE/NOT-EXPERIENCED), reveals the encoder's subjective attitude towards the prospective trip. In the former, the trip is being reported as if it were already a reality. In the latter, however, the encoder is only expressing an expectation or stating an intention of a trip which may or may not actually take place, but is not being perceived as a reality at the point of speaking.

In examples such as these, the 'double-opposition' of both PROXIMATE/REMOTE versus EXPERIENCED/NOT-EXPERIENCED is exploited by speakers of Hebrew to subjectively categorize their attitudes towards future events or actions. Example 1(a) would be most appropriate in the context of a prospective traveller who has already purchased his tickets and completed his travelling arrangements. Example 1(b), on the other hand, would be more appropriate in the context of expressing the idea, desire, or intention of travelling before any of the arrangements have been made. In other words, the more the encoder subjectively perceives a future event as a *fait accompli*, the more likely he is to choose the present tense.

- (2) To designate 'polite' requests, demands, directives or 'irrealis' or hypothetical actions, states or events in which the future tense is in opposition to the 'past' and 'present' tenses:

- (a) *ratsiti ledaber itxa etmol / ha-yom / maxar* (past tense)
I-wanted to speak with you yesterday / today / tomorrow
- (b) *ani rotse ledaber itxa ha-yom / maxar* (present tense)
I want to speak with you today / tomorrow
- (c) *ertse ledaber itxa ha-yom / maxar* (future tense)
I-will-want to speak with you today / tomorrow

In the above minimal triplet, the choice of either the 'past tense' invariant meaning (REMOTE/EXPERIENCED) versus the 'present tense' invariant meaning (PROXIMATE/EXPERIENCED) versus the 'future tense' invariant meaning (REMOTE/NOT-EXPERIENCED), reveals the encoder's subjective attitude towards himself in relation to the decoder and thus affects the kind of request, demand, or directive that would be appropriate at the time of speaking.

In example 2(a), the REMOTE/EXPERIENCED interlocked meanings of past tense suffix of the verb 'want' signal the speaker's distant or remote spatio-temporal-existential perception of that experienced desire at the time of speaking. If we interpret the sentence literally and objectively: i.e., the speaker is relating a fact: 'I wanted to speak to you', two possible interpretations are: 'but you weren't there yesterday or might not be there today or tomorrow so I couldn't or can't', or 'I wanted to before, but now I no longer have to'. The various collocations with specific indicators of past, present, and future time allow us to infer different degrees of his expectation of fulfilling that desire and also reflect the extralinguistic factors related to 'remoteness' and 'proximity' in the relationship between the encoder and decoder:

- (i) The further away he goes from the past (*etmol* 'yesterday') - where we may infer that his desire was not realised, and thus assume that he is objectively relating the facts - the more the subjective possibility of fulfilling his wish directly depends on the subjective extralinguistic relationship between the encoder and decoder.
- (ii) Thus, by choosing the REMOTE/EXPERIENCED meaning in these non-past contexts (*hayom/maxar* 'today'/'tomorrow') the speaker is signalling what may be inferred as a 'polite request': i.e., a request where the choice is left to the addressee. The latter may either choose to comply with this request or not. An appropriate context for this particular example would be a student addressing his professor, an employee addressing his employer, or any context where there are clear cut hierarchical roles. The speaker does not intend to convey the literal message: 'I no longer want to speak to you', but the 'remoteness' (signalled by the 'past tense') is reflecting the 'distance' between the encoder and the decoder and is reflecting what may be inferred as 'politeness'.
- (iii) On the other hand, in example 2(b), the use of the interlocked meanings PROXIMATE/EXPERIENCED of the so-called present tense in these non-past contexts would either give a sense of urgency to the speaker's request, or signal what may be inferred as a 'demand' or an 'order'. In this case as well, the choice of the linguistic sign is also influenced by the extralinguistic, real world relationship between the speaker and addressee. A student or employee addressing a professor or employer in this manner would be con-

sidered rude, while this utterance would be acceptable in the context of a professor or employer addressing a student or employee, or, alternatively, two students or close friends or members of a family addressing each other.

- (iv) In example 2(c), the use of the REMOTE/NOT-EXPERIENCED interlocked meanings of the so-called future tense in these non-past contexts, would imply a 'weakening' of the request, and therefore signal a different kind of message entirely: e.g., (literally) a hypothetical wish or desire which, in turn, could either be inferred as a simple statement of intention, (cf. ex. 1(b)), or, alternatively, a veiled demand or order, which depends on the relationship between the speaker and the addressee. This utterance would be more appropriate for a professor addressing a student or an employer addressing an employee, etc.

In all of the above examples, the invariant sign meanings and the opposed value relationships they share within the postulated interlocked systems, always remain the same. They are consistently being exploited in different conventional ways in order to convey various kinds of 'requests' or 'directive' messages in diverse situational contexts. In other words, the pragmatic or extralinguistic characteristics of the relationship between the encoder and decoder (e.g., the 'social' or 'professional' or 'physical' distance between them) also influence the choice of tense used in these kinds of utterances: the more 'distant' the relationship, the more likely a REMOTE form will be used to convey these specific kinds of messages; while the 'closer' the relationship, the more likely a PROXIMATE form would be deemed acceptable or appropriate. The interaction and interrelationship between all of these variables may differ, of course, from speech situation to speech situation, speaker to speaker, and in the kind of request being made.

Additional examples of different kinds of 'future request' (example 2(c)) have been recorded in the literature. The following examples (2(d-g)) illustrate the use of 'future requests' in different settings where the participants have either clear-cut roles, or are strangers, when in both cases this may be interpreted as reflecting a certain kind of 'distance' between them both in formal and informal styles and registers:

- (d) *xevre, ani avakes lehorid raglayim mihamošavim* (future)
Hey, guys, I'm asking you to take your feet off the seats!
(Bus driver to passengers on bus.) (Adapted from Blum-Kulka *et al.* 1985: 127.)
- (e) *be-seder, tašir et ze, telex ve taxzor yoter meuxar* (future)
Okay, leave it here, go and come back later.
(Nurse to patient: health clinic.) (Adapted from Blum-Kulka *et al.* 1985: 127.)
- (f) *yafria lax im ani elex lakaxat mispar?* (future tense)
Would/will it bother you if I go/will go and take a number?
(Patient to cleaning lady: clinic.) (Adapted from Blum-Kulka *et al.* 1985: 131)
- (g) *ani uxal lešnorer mimex sigaria?* (Yiddishism) (future tense)
Can I beg/take you for a cigarette?
(Man to woman: university cafe.) (Adapted from Blum-Kulka *et al.* 1985: 130.)

Examples (2(h-i)) illustrate the difference between the use of a 'future' (REMOTE) versus 'present' (PROXIMATE) tense request with the same verb (Y-X-L 'to be able') in written memos: the first, a formal memo from a student to a research assistant (future/REMOTE), and the second, an informal memo from one research assistant to another (present/PROXIMATE):

(h) *ode lax im tuxli livdok et ha-targil šeli* (future tense)

I would/will be grateful if you could/will be able to correct my paper.

(Student to teaching assistant: memo)

versus:

(i) *at yexola letalfen elai le-430-291? toda* (present tense)

Could/can you call me at 430-291? Thanks.

(Research assistant to research assistant: memo.) (Adapted from *ibid.*: 132.)

Modern Hebrew also has other conventionalised means to express directives, commands, requests, orders as well as wishes, hopes, fears, desires, doubts, etc. in which the future tense is opposed to other verb (not necessarily 'tense') forms which collocate or are in opposition with other linguistic systems. These include various 'imperative' or 'subjunctive' kinds of messages (examples 3-6) within which the 'future' tense collocates with alternative 'negative markers' and is in opposition to the 'infinitive' form (examples 4(a), 5(a,b)):

(3) To designate 'positive imperative' messages in which the future is in opposition to traditional 'imperative' morphology:

(a) *telex kvar!* ('future' used as 'imperative')

(lit. you-will-go already!) 'Beat it!'

(b) *lex kvar!* (traditional 'imperative')

(lit. go already!) 'Beat it!'

It is not by chance that the so-called future tense in Modern Hebrew is frequently used to express what are traditionally referred to as 'imperative' and/or 'subjunctive' messages. As we have previously stated, (ex. 2(c)), its interlocked meanings - REMOTE/NOT-EXPERIENCED - are quite appropriate for this communicative task of presenting a hypothetical wish or desire which can be inferred as a request, demand, or order within appropriate linguistic and/or situational discourse contexts. The choice of the so-called future tense in opposition to the imperative morphology for this kind of message is not an arbitrary one:

(i) We have found that the so-called imperative morphology, (example 3(b)) is reserved for those situations where an immediate and precise complying to the speaker's commands, orders, or instructions is expected: e.g., on road signs, orders given in the army, written instructions, recipes, etc. In these contexts we most consistently find the traditional imperative being used.

(ii) On the other hand, the use of the future tense, (example 3(a)), is consistently preferred for those situations where an immediate or precise fulfilling of

the implied request, order or demand is not necessarily of primary importance, nor necessarily expected; e.g., requesting people to be at a certain place at a certain hour, or to bring certain items, or follow certain instructions, particularly in those situations where the choice to comply or not is more dependent on the will of the addressee rather than the speaker. Thus, very often, speakers of Hebrew view the use of the future in place of the imperative as a 'mitigated' kind of command or request, reserving the 'true imperative' for those situations when 'they really mean it' or 'know they can enforce it' or when they want to assert their authority.

This 'future-imperative' opposition may be considered to be a rather controversial one for several reasons. First, prescriptivists or prescriptive-oriented speakers (Israel has a language academy and is very prescriptive in its educational system and electronic media!) often view the use of the 'future' in 'imperative' messages as a 'mistake' in usage and representative of 'street' Hebrew versus 'standard' Hebrew leading people to make various stylistic and normative judgements regarding the 'future' versus the 'imperative'. Rosén (1977: 198-9) points out that the use of future as opposed to the imperative has been considered to be representative of 'children's Hebrew' or 'spoken Hebrew' and Glinert (1989: 285-6) differentiates between the future and the imperative as 'casual' versus 'normative' requests, respectively.

Secondly, the 'egalitarian' and 'open' nature of Israeli society may be a pragmatic or extralinguistic motivation for the frequent use of the 'future' as opposed to, or 'at the expense of', the traditional 'polite' imperative. Thus, on the surface, this preferred frequency often may be misconstrued as the 'losing of the imperative' in colloquial Hebrew. This approach, however, is based on the erroneous notion that 'function equals meaning': i.e., because both alternative forms perform the 'same function' they are 'synonymous' and therefore one synonymous form is replacing another without considering the possibility that the two different forms mean two different (albeit subtle) things. Indeed, I maintain that the preference for one form over the other may reflect preferred 'message types' motivated by different invariant meanings reflecting speakers' extralinguistic attitudes.

A third 'explanation' often appealed to is 'ease of articulation' where it is presumed that one form is preferred because it is 'easier to pronounce' than the other. This approach also assumes a 'synonymy' between the alternative forms performing the same function and overlooks the fact that the two different linguistic signs may have two different invariant meanings which are exploited for different kinds of messages. Glinert (1989: 286) also notes a 'new casual imperative form' which may be analysed as a phonetically reduced future form which may be an indication of a case of ease of articulation. Furthermore, it also should be remembered that the signal-meaning relationship of the linguistic sign is presumed to be integral and inseparable.

Berman (1981a: 269, 1981b: 616-617) discusses the imperative-future alternation from the point of view of language acquisition simplification from the point of view of universals of language acquisition. Berman, as well as Yaeger-Dror and Sister (1987: 1137-1138), also discuss the possibility that the choice for future versus imperatives is also reflected in whether we have a full or 'defective' verb (with one root consonant lost in the conjugation). Although this tendency certainly does exist there may very well be an alternative 'linguistic' explanation based on the

fact that the 'defective' verbs may also form a specific semantic class in the language as well as being merely phonetically anomalous. Indeed, in Tobin (1990c) we discuss a marked distinctive semantic feature which may provide an alternative linguistic explanation to three sets of 'defective' or 'irregular' Hebrew triconsonantal (CCC) roots and many of the English 'irregular' strong verbs as well.

Yaeger-Dror and Sister (1987: 1138-1139) also discuss the avoidance of both imperative and future forms in the same sentence (in a way similar to Tobin's (1988b,1989b) discussions of the 'historical', 'narrative', or 'conversational' present). Yet, it should be noted that both full and defective verbs can be and are heard with both forms in appropriate contexts and that either form can be and is repeated in the same utterance (cf. exs. 2e, 5(c,e)) in this paper taken from Blum-Kulka, Danet and Gherson (1985). This 'imperative use of the future' or the development of a 'new imperative' in Hebrew also has been discussed in Bar-Adon (1966) and Bolozky (1979). Bolozky, relying on his native intuitions, also believes that the use of the 'more polite' imperative requires an 'immediate response' which is also supported in part by Bogoch and Danet (1984) and Blum-Kulka, Danet and Gherson (1985).

All of the above prescriptive, stylistic, phonetic, diglossic, diachronic synchronic, universal acquisitional problems are further aggravated by the fact that both forms appear to be 'grammatical', 'acceptable' and even 'interchangeable' in most contexts and their favoured or disfavoured exploitation cannot be explained by a set of formal syntactic, semantic, pragmatic, or phonological rules. None of any of the above-mentioned analyses postulate the possibility that the choice of one form over the other is based on a difference in meaning between the two opposed forms performing the same function.

Examples of this 'imperative-future' opposition can be further illustrated by the following examples 3(c-d) where the future tense is used (and sounds more natural than the imperative) with 'mitigators' such as 'tag questions' and the lexical item *ulai* 'maybe', 'perhaps' which can either serve to 'mitigate' or 'aggravate' requests depending on the choice of verb form used or the situation. The 'future' as opposed to the 'imperative' is also frequently preferred for more informal 'requests' as opposed to formal 'commands' or 'orders' between equals (examples 3(e,f)):

(c) *tevakši mi-aba, tov?* ('future')

Ask Daddy, okay?

(d) *ulai tafsik?* ('future')

Perhaps, you'll stop?

(From Blum-Kulka *et al.*: 1985: 120: fn.5.)

(e) *tagidi, eix ha-anglit šelax?* ('future')

Say, how's your English?

(Student to student: on campus.) (Adapted from Blum-Kulka *et al.* 1985: 127.)

(f) *tizaher še ze lo yišaver* ('future')

(Be) Careful that it won't break!

(Woman to man: at a party.) (Adapted from Blum-Kulka *et al.* 1985: 129.)

Both forms can also appear in the same utterance with a directive message (examples 3(g,h)):

(g) *lexi tesaxeki im yaeli* (imperative + future)

Go (imperative) play (future) with Yaeli!

(Grandmother to toddler.) (Adapted from Yaeger-Dror and Sister 1987: 1138.)

(h) *tigmor et ha-manoa ve lex habayta* (future + imperative)

Finish (future) the motor and go (imperative) home!

(Owner of garage to worker.)

It is also significant that the so-called future tense morphology is the only form used in the language for what is traditionally called negative imperatives (in collocation with the negative form *al* reserved for this particular function) (example 4(a)):

(4) To designate all 'negative imperative' messages: (imperative negative marker *al* + 'future' = 'negative imperative'):

(a) *al titrotsets li bein ha-raglayim*

(lit. No you-will-run-around me between the legs!) 'Stop running around here!' / 'Don't get underfoot!'

It is precisely in these 'negative imperative' messages (e.g., 'to make someone else not do what he or she may really want to', or 'to make something not happen') that, by definition, the speaker has the least amount of control over the realisation of their request or command. Thus the interlocked meanings of the future tense REMOTE/NOT-EXPERIENCED are the most appropriate to be used in these negative situational contexts, and, indeed, are the only one used in this particular linguistic construction.

The 'future' also occurs in similar (but stronger) 'personal' negative commands (preceded by the negative marker *lo* 'no, not' and not the 'negative imperative' marker *al*) as in example 5(a) (taken from The Ten Commandments) which, in turn, can also be opposed to the more 'impersonal' infinitive form (also preceded by the word *lo*) as in example 5(b) (taken from a sign in a cinema):

(5) To designate 'stronger' negative messages in which the future (inflected for person) is in opposition to the uninflected 'infinitive' the latter being used for more impersonal commands or directives: (negative marker *lo* + 'future')/ (*lo* + 'infinitive'):

(a) *lo tirtsax, lo tinaf, lo tignov...*

(lit. No you will murder, No you will commit adultery, No you will steal)

'thou shalt not murder, thou shalt not commit adultery, thou shalt not steal...'

(The Ten Commandments.)

- (b) *lo leašen, lo lefatseax garinim...*
 (lit. No to smoke, No to crack nuts)
 'no smoking, no cracking nuts...'

(Sign in a cinema.)

An analysis of the imperative and infinitive (as well as the opposition between the negative forms *al* versus *lo*) are needed in order to better understand and explain the distribution of the future tense versus the imperative and infinitive in the above examples.

The connection between infinitives and future time and forms is not new. Berman (1978: 318-19: fn. 9) shows that infinitives in Hebrew and other languages are often used to express the notion of 'purpose' and thus imply a 'future' kind of reference. Glinert (1989: 287) refers to the infinitive of request as a 'remote infinitive' in contrast with the future and the imperative in Hebrew and links it to authority. Bolinger (1977: ch. 9) discusses the connection between infinitives and imperatives and the integral connection between infinitives and future as a means of distinguishing between infinitives and gerunds in English. For the meantime, we would like to propose here, that the use of the 'future' versus the 'infinitive' in these 'negative-imperative' messages is motivated by the 'impersonal' nature of the imperative which is neutral (i.e., does not indicate person, number and gender information) as opposed to the future which does indicate such information. The exploitation of this opposition can be found in examples 5(c-f) where in each pair of future versus infinitive sentences the former is used when addressing a specific individual or individuals while the latter is reserved for an entire group in general:

- (c) *tilbeši et ze, tami, tefani makom* (future)

Put it on, tami, and make room for them!

- (d) *laševet, et ha-nyarot ani mevakešet lasim ba-pax* (infinitive)

(to) Sit down, the papers I'm asking you to put in the bin

(Mother to daughter and other children at a birthday party.) (*Ibid* 1985: 127.)

- (e) *...tašir et ze, telex ve taxzor yoter meuxar* (future)

...leave it here, go and come back later!

(Nurse to specific patient: health clinic.)

- (f) *rak rega bevakaša, lo lehikanes iti, ani tsrixa la'asot bedika* (infinitive)

Just a moment, do not enter, I have to do a test!

(Nurse to group of patients: health clinic.) (*Ibid* 127.)

The future is also used for what may be referred to as 'subjunctive-like' messages, (expressions of wishes, desires, hopes, fears, doubts, etc.) all of which may be relegated to the realm of the 'unmanifest', 'unexperienced', 'emotional' or 'mental' of our 'heart' and 'mind' for which the interlocked invariant meanings REMOTE/NOT-EXPERIENCED of the future are the most suitable from all the other possibilities in the tense system:

- (6) To designate 'subjunctive-like' messages (wishes, desires, hopes, fears, doubts, etc.):
- (a) *se-yelex kvar!* ('future' used as 'subjunctive')
(lit. that-he-will-go already!) 'Let him/Would that he go already!'
 - (b) *ani mekave/xošēš/be-safek še-yelex lanu*
(lit. I hope/fear/am in doubt that he-will-go to-us)
I hope/fear/am in doubt that he'll leave us.
 - (c) *halevai ve-yelex kvar!*
(lit. hopefully/would that and-he-will-go already!)
I wish that he would go/went already!

It should be clear from all the above examples (1-6) illustrating its various uses, that the future tense (like the past and present tenses), is not only objectively linked to its temporal namesake, (i.e., to designate future events), but is conventionally used in various other kinds of subjective messages requests, directives, mitigated imperatives, negative imperatives, subjunctive, etc. - in a way which is consonant with its proposed interlocked meanings: REMOTE/NOT-EXPERIENCED.

The 'future' tense in texts

We have chosen a specific text to illustrate our claim that the Modern Hebrew tense system is not only motivated by the objective time of events, actions, and states, but is rather a deictic category which allows encoders to categorise actions, states, and events with regard to their subjective view of them at the 'here and now' point of encoding.

The particular text we will use (*šnayim mi-mišpaxa*) (Two from a Family) is a memorial booklet written for two members of a kibbutz who fell during the Six Day War. One section is the written version of the personal accounts of the war experienced by various soldiers from the kibbutz. The text was recorded during a special evening in which these soldiers related their personal war experiences to the entire kibbutz after the war. We have chosen this particular text since it allows for a reasonable amount of control over specific variables which may be significant to our analysis:

- (1) The genre of a personal account, a first person memoir, assures us that we are getting the particular point of view of the speaker/writer throughout the entire text.
- (2) Each subtext represents and describes a particular period in time, i.e., all the events described in the text took place within the same well-defined period of real world time.
- (3) The *procès de l'énonciation* took place after the events and to a specific audience who share a similar background, interest, and point of view with the

encoders. Furthermore, the text was edited and published under the aegis of the Kibbutz movement.

- (4) The text being analysed was originally presented orally and then published. Therefore, it may be assumed that this text accurately reflects elements of both spoken and written language.

We have previously examined the distribution of the present tense morphology in this and other texts to see whether there is a correlation between the meanings postulated for the so-called present tense forms and their occurrence in these texts with regard to the message being conveyed (Tobin 1988b, 1989b). The results clearly indicated a non-random distribution of the present tense forms meaning PROXIMATE/EXPERIENCED:

If we view each soldier's personal account individually and/or all nine together as a single text, we can see that the use of the present tense morphology can consistently and systematically be divided into three major areas:

- (1) There is a prevalent use of the present tense in those linguistic and situational contexts where the speakers are presenting their personal feelings and thoughts about the war. They may be interpreted as the encoder's attempt to share his experiences with his audience.

The most frequent and recurrent verbs that appear with the present tense morphology, i.e. are the most outstanding in the text, fall into two sub-classifications:

- (i) sensory verbs, i.e. those verbs that are used to deictically orient the addressee to the encoder's spatio-temporal-existential and perceptual assessment of his surroundings: these include verbs of seeing and looking: *ro'eh* 'see', *mistakel* 'look', *tsafe* 'observe', (Aphek and Tobin 1988: ch. 1); hearing and listening *šomea* 'hear', and feeling *margiš* 'feel';
- (ii) verbs indicating the speaker's mental state or his subjective assessment of the situation: *xošev* 'think', *yodea* 'know', *zoxer* 'remember'; *nidme li* 'it seems, appears to me', *mistaber* 'to be clear, evident', *mitlabet* 'to be concerned, to be in doubt'; *doeg* 'worry', *mištagea* 'to go crazy', *mitkaše* 'to have difficulty with', *meaxzev* 'to disappoint', etc.; this allows the encoder to convey and share his innermost personal thoughts and feelings with the addressee's.
- (2) The present tense morphology consistently can be found also in those contexts where the encoders were describing the general situation during the waiting period after they were conscripted but prior to the outbreak of the war, during, and immediately after the war itself. This use of the present tense morphology may be viewed as an attempt to give the addressees a better understanding of the encoder's activities or describe the circumstances under which he was functioning in a more personal way:
- (i) the first set of pre-war, waiting-period verbs include the recurrent use of verbs such as: *šoxvim* 'lying down, lying around, doing nothing', *mexakim* 'waiting, waiting around'; *olim/yordim* 'ascending'/'descending' buses to be transported to the front; *yošvim/omdim*, 'standing, standing around'/'sitting, sitting around'; etc.

(ii) the second set of action verbs: *megiim* 'arriving'; *mitkadmim* 'moving forward', *mistaarim* 'assaulting, attacking'; *mamšixim* 'continuing'; *mitpotsetsim* 'blowing up'; etc.

(3) The third context in which there is a large concentration of present tense verbs includes all the verbs related to the encoder's war experiences which can be associated with the kibbutz itself, the specific kibbutz members, or other soldiers who are also members of kibbutzim. This allows the encoders to emphasize the common denominator they share with the members of their audience who did not take part in the war, thus reaffirming their common bond and shared set of values, beliefs, and their life-style. It may serve to reconfirm their common identity after the traumatic experience of war and their mutual grief at the loss of two comrades.

Thus, in this text, which consists of nine individual segments all of which follow a similar expository and thematic line, we can see that the present tense systematically is being exploited to orient the addressee to the most intimate thoughts and feelings of the encoder, as well as those actions and events he subjectively views as being close to him which he has chosen to share with his audience in a most personal way. All of these examples, in turn, strengthen the shared kibbutz-family identity between the encoder and addressee. The use of the present tense in this text also lends support to our analysis of Modern Hebrew tense.

Elsewhere, I have referred to the notion of text as 'a multitextured and multi-dimensional structure in relief where [word] systems are its most outstanding feature' (Apeh and Tobin 1988: Chapters 1, 9). Taking this point of view as my point of departure, I have examined the use of the future tense in the war stories told by these nine different soldiers, all of whom are high school or university educated native-Hebrew speaking members living in the same kibbutz. As I have previously stated, the original text was recorded at a special memorial evening held in the kibbutz communal dining room shortly after the Six Day War and later published as part of a memorial to two other kibbutz members of the same kibbutz.

If we compare and contrast the use of the future (REMOTE/NOT-EXPERIENCED) versus the present (PROXIMATE/EXPERIENCED) and past (REMOTE/EXPERIENCED) tenses we find, not unsurprisingly, quite a different kind of distribution in the particular text under discussion. The most apparent differences are, of course, in their relative frequency:

- (i) the most frequently used tense is the past tense being used to objectively relate events that have taken place in the past;
- (ii) the second most frequently used tense is the (historical) present as we have outlined its non-random subjective exploitation and use above;
- (iii) the future is the least frequently used tense and may be further related to certain codified strategies.

All the uses of the future tense outlined in this paper may be found in this larger text containing the monologues of all nine speakers: future time, conditional, intentional, habitual, directive, imperative as well as subjunctive-conjectural all of which reflect and share the interlocked invariant meanings REMOTE/NOT-EXPERIENCED. Therefore, each and every use of the future tense clearly presents all the actions, states and events that are not 'manifest' or 'accessible to the speaker's

senses', but rather those potential actions, states and events that belong to his heart and mind alone. It is also significant to note, that most of the uses of the future tense do not appear in independent sentences but as the apodosis of protasis conditionals or statements of thought, belief, hope, fear and doubt. Indeed, one might view the use of the future in this text as a catalogue of the encoder's abstract and unrealised self as opposed to the concrete actions, states or events that he has actually witnessed or performed.

- (i) The most frequently used strategy is to have the future form preceded by statements and phrases such as: *lo he'emanti* 'I didn't believe', *xašavti* 'I thought', *amru lanu* 'we were told', *hayiti batuax* 'I was sure', *haya barur* 'it was clear', *ani yaxol lehavti* 'I can promise', *lo šamati* 'I didn't hear', *amarti be-libi* 'I told myself (lit. 'I said in my heart!') (Y.T.), *tefila axat hayta be-libo* 'one prayer was in his heart', *hitxananti be-libi* 'I prayed/begged in my heart', *ša'alti et atsmi* 'I asked myself', *xayiti be-ašlaya* 'I lived with the illusion', *aleihem lidog* 'they have to worry', *yadanu* 'we knew', *lo yaqdati* 'I didn't know', *ani mekave* 'I hope', *zaxur li* 'I was reminded', *mi-xašaš še* 'from fear of', *ki* 'because', *im* 'if', *im-ki* 'even though', *bilvad še lo* 'only that', *kedei še* 'in order that', *ke-šem še* 'for the purpose of', *asui lehiyot* 'it may be', *mašma* 'it means', *davka* 'only so', 'to spite'.
- (ii) The second most frequently used strategy was independent temporal sentences with 'future' adverbials such as *od me'at* 'in a little while', *leolam* 'never', *o-to-to* 'in just a little while' (slang) (Y.T.), *axsav* 'now', *lifnei* 'before', *be-od rega* 'in another moment', 'the next moment', *kvar* 'already', *atid* 'future', *yoter lo* 'no more'.
- (iii) The third most frequently used strategy was to use the future as a discourse marker either to introduce or divide the discourse: *lifnei še-estax be-sipuri* 'before I begin my story', *lo omar* 'I wouldn't say', *pratim eileh... yehiye bahem lehamxiš...* 'these details will be able to clarify', *efsax al...* 'I'll skip the next part'; or to continue the tension of the discourse in response to questions such as *eix?* 'how?', *ma* 'what?' *ha-im* 'question marker'; or to 'spice the text' with general truths or statements or idiomatic expressions: *lotihiyena šum ba'ayot* 'there'll be no problems', *ha-milxama lo tivrax* 'the war won't run away/disappear', *mamaš lo yetuar* 'it is really indescribable', *lo yeuman!* 'unbelievable!', *ulai yehiye tov yoter* 'maybe, it'll be better', *ma še yihye, yihye* 'what will be, will be'.

Thus we can once again see that the interlocked invariant meanings of the future morphology (REMOTE/NOT-EXPERIENCED) is reflected in the conventionalised kinds of codified messages found in texts which then may even be exploited as textual or discourse markers and can eventually become codified textual strategies.

VI. Conclusion

The fact that there may often be a match between the referential real-world time and the traditionally categories of tense is not surprising: people most often need to or prefer 'to tell things as they are', i.e., 'relate the facts' in normal everyday conversation. This may explain why linguists have traditionally related time to tense

and, objectively speaking, this hypothesis appears to work much of the time. However, we still are left with the basic question: what about those familiar, frequent and well-known uses of the verb tense system in which there is no match between the time of the event and the choice of tense used to communicate it? These 'exceptional' uses of the verb tense system obviously propose a serious threat to the view that tense is solely motivated by time. These 'problematic' exploitations of tense morphology have long been recognised and even have been given categorical labels such as 'the historical present', 'the narrative present', 'the timeless present', or the 'imperative', 'directive', 'subjunctive', 'habitual' use of the future.

In this paper we have presented an alternative sign-oriented analysis of the Modern Hebrew tense system based on interlocked grammatical systems composed of meanings which include pragmatic temporal, spatial, perceptual, and experiential deictic factors. We have tried to show that this analysis can better account for all the conventional uses of verb tense morphology: both those that depict an objective match between time and tense as well as those that do not. We have done so by viewing language as a flexible and open-ended system used by human beings to communicate coherent (con-)textual messages.

Furthermore, we can see that there is a direct relationship between the actual linguistic signs used in a text with the plot, descriptive narrative, emotion, and themes of the message the encoder is trying to convey. We may indeed view language as a 'system of systems' - composed of linguistic signs and the oppositional relationships between them - which is used by human beings to communicate. In all of the examples presented in this paper, we have tried to show how the notion of the invariant meaning postulated for a sign as part of larger interlocked grammatical systems may be exploited effectively and coherently by human beings to communicate: i.e., convey information about how they view the world. This is based, of course, on the underlying premise that language is indeed both an instance of human behaviour and an instrument of communication composed of signals and invariant meanings. Human communication, therefore, may be viewed as the ability to infer specific contextual messages from vague and abstract invariant sign meanings, or in other words: the human ability to make inferential leaps from sign to text.

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