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DESCRIPTION
AND
CONTRASTIVE ANALYSIS
OF
TENSE AND TIME IN ENGLISH AND ARABIC

by
ABDUR-RASUL AL-KHAFAJI

A Dissertation Presented to the Faculty of Arts
of the University of Glasgow in Fulfilment of
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ABSTRACT

The present study consists of four main parts. Part One presents an introduction and provides a general background on time and tense for the subsequent parts; it specifies the nature of the problem being investigated and outlines the research approach; definitions of basic terms and concepts are given at the end of this part.

Part Two deals with the various aspects of the English tense system. Chapter One describes the tests and the resulting data ~~that~~ constitute the corpus which the analysis of English tense is primarily based on. Chapter Two consists of a survey and criticism of related literature. Chapter Three presents a suggested re-analysis of the English tense system. Chapter Four discusses the phenomenon of expansion in English verbs. A transformational description of tense and aspect in English is then suggested in Chapter Five. Finally, Chapter Six presents a detailed inventory of functions of English verbal forms.

The Arabic tense system is discussed in detail in Part Three which also consists of six chapters. The

research data are described and briefly analyzed in Chapter One. Chapter Two presents a survey and critique of related literature. Chapter Three puts forward a new analysis of the Arabic tense system and Chapter Four describes the major sub-systems within the overall tense system: discussed under sub-systems are phenomena such as double orientation, simultaneity, duration, repetition, shiftings, and sequence. In Chapter Five, a transformational description of the Arabic tense system is outlined and discussed. The main analysis of the Arabic research data is carried out in Chapter Six where functions of Arabic verbal forms are described in detail.

Part Four of the study makes use of the findings of parts Two and Three by carrying out a contrastive analysis of the English and Arabic tense systems in order to define and explain sources of potential difficulties for Arab learners of English. A special formal-functional contrastive technique has been devised and applied in the comparison. At the end of this part, a detailed inventory and a general inventory of learning problems are listed. Part Four ends with some recommendations for better teaching and suggestions for further research on the subject.

A major characteristic of the present study is its detailed analysis and description of the important role which temporal adverbials play in the tense systems of English and Arabic both in deep and surface structures. Another basic feature is the economical and consistent analytical approach which relates tense and aspect in the surface structures of both English and Arabic to formal markers represented by affixes (prefixes, infixes, and suffixes). The concept of 'tenseme', the transformational descriptions for both English and Arabic tense systems, the detailed inventories of functions, the classifications of these latter into systematic and non-systematic, the new contrastive technique, and the inventories of learning problems are prominent among the other contributions of this study.

VOLUME ONE

PART ONE

INTRODUCTION AND BACKGROUND

CHAPTER ONE

THE PROBLEM, AIM, AND APPROACH

(A) The Problem

It has been found by linguists and language teachers that the most difficult part of learning any language is its verb system. Learning a foreign language is largely learning how to handle its verbal machinery properly.¹ Verbs are consequently the central focus of the activities of the linguist, the pedagogist, and the learner. Verbs in any language convey several items of information. In English, for example, they indicate, among other things, person, mood, tense, number, and voice. The core of any verbal system, however, is what can be loosely referred to as the 'time-reference' of verbs. Communication, the ultimate objective of language, would be impossible without the expression of such concepts as anteriority, posteriority, and simultaneity of various actions in time. These concepts are primarily indicated by the tense system of verbs in most languages.

There has been a lack of clear understanding of the question of tense in language. Traditional grammarians, as well as many modern language teachers, have completely identified tense with time. On the face of

¹F. R. Palmer, A Linguistic study of the English Verb (London: Longmans, Green and Co Ltd, 1965), p. 1

it, this might seem plausible, but a careful analysis of tense and its functions shows that this identification gives a very distorted picture of any tense system. The philosophical or logical time that is often regarded as composed of three main temporal fields; that of past, present, and future, is not necessarily formally paralleled in language in this tripartite way. Languages vary in this as some do have these three divisions of time formally marked in their systems, whereas others have completely different divisions or different combinations of these three temporal divisions.²

In English, for example, the subject of tense has long been a controversial one. Traditional grammarians may have as many as thirty tenses,³ whereas modern linguists have drastically reduced the number to only two tenses: past tense and present tense - a view which has not yet received wide recognition and understanding, especially by teachers of language and school grammarians. We still, for example, read about a 'future tense' and a 'present perfect tense' as well as many other labels rejected by modern English linguists. This, the

²John Lyons, Introduction to Theoretical Linguistics (Cambridge: The University Press, 1969), pp. 305-6

³On page 5 of A Modern English Grammar (Heidelberg: 1931, Part IV), Jespersen mentions that Palmer's Grammar of Spoken English has 26 tenses and Sheffield's Grammar and Thinking has 30.

present writer feels, is due to a lack of consistent and sound theoretical framework for the subject of tense as well as due to the failure of efficiently incorporating many useful findings of theoretical linguistics in the field of teaching and learning languages. In Arabic, the native language of the writer, there is virtually no modern treatment of tenses at all. Almost all verb analyses in Arabic have been carried out more in terms of Latin than Arabic.

(B) Aims of the Study

This study aims to carry out research in the field of linguistics, with a special interest in applied linguistics. The research material is English and Arabic and the research topic is verb tenses in both languages. Modern theories of linguistics have not yet been applied to describe and analyze Arabic except in very few cases. Moreover, the subject of tense in English is still controversial and far from being exhausted.

The objectives of the present study are the following:

1. Re-analyzing the tense system of English in the light of the latest advances in linguistics, especially transformational grammar, and in terms of both theoretical and applied linguistics.
2. Analyzing the tense system of Arabic descriptively.

This analysis is again to be in line with the latest theories and approaches in modern linguistics with an ultimate relevance to applied linguistics.

3. Carrying out a contrastive analysis of the tense systems of English and Arabic to discover formal and distributional differences and similarities between the two. The findings of this contrastive analysis are then made use of towards the identification and interpretation of learning problems.

(C) The Research Approach

1. The general trend of the research approach in the present study is from the general to the particular. The best way to understand any linguistic part, it is believed, is first to describe the whole which that part belongs to. Thus the description of the tense systems of both English and Arabic is preceded by a broader introduction on time, order, and aspect. The tense system of each language is then viewed against this broad and relevant background. In line with this approach, specific tense forms in each language are only discussed after the general framework of that tense system has been first presented and analyzed.
2. Though forms are the primary tools of linguistic analysis, many linguists hold that meanings can

legitimately be used as auxiliary classificatory means (Palmer, pp. 6-8). It has in fact been said ✓ that the main difference between theoretical and applied linguistics is that the former uses formal criteria of analysis only whereas the latter admits both formal and semantic criteria to the process of linguistic analysis.⁴

As this study is ultimately related to applied linguistics, it has recognized meaning as a research tool. Reference to meaning should not be despised in linguistic circles as long as formal criteria are given the primacy in analysis and forms are the basis on which any semantic classification rests. In fact, even the most so-called formal analyses cannot completely be carried out without some resort to meaning. 'Formal' studies in morphemics offer the best examples of such use of semantics where the researcher classifies the morphemes of an unknown language on the basis of the reaction of a native speaker as to whether two forms in a minimal pair are semantically the same or different.

3. The approach of the "Prague School" of linguistics has been found very useful and promising. It has been largely used in the analysis of both English and

⁴W. E. Bull, Time, Tense, and the Verb (Los Angeles: University of California Press, 1968), p.110

Arabic tenses in the present study.

According to this approach, a whole language or any of its systems could be analyzed in terms of the principle of binarity, i.e. that a language is composed of sets of binary pairs in which one member of the pair is 'marked' while the other is 'unmarked'. Vachek, one of the prominent members of the School of Prague, explains how the principle of binary oppositions can be applied to the fields of morphology and syntax in these words:

While the marked member of the opposition . . . signals the presence of a certain feature (this time, a grammatical one), the unmarked member does not signal the absence of that feature, but rather signals nothing about its presence. In other words, the unmarked member does not signal whether that particular feature is present or not. It can, of course, happen that in some specific situation it turns out to be necessary to assert the absence of that feature and that the unmarked member is used for this purpose, but this is only a special case of the use of the member, a special case must not be generalized upon.⁵

Roman Jakobson, a pioneering leader of the School, has used this approach of binary oppositions successfully in the analysis of the Russian verb.⁶

⁵ Joseph Vachek, The Linguistic School of Prague (Bloomington: Indiana University Press, 1966), pp.84-85

⁶ See "Russian Conjugation," Word, IV (Dec., 1948), pp. 155-167 ; and Shifters, Verbal Categories, and the Russian Verb (Cambridge, Mass.: Department of Slavic Languages and Literature, Harvard University, 1957).

This approach, as will be shown later, has a great relevance to the question of tense in both English and Arabic. It has much to offer towards the solution of many problems in this respect.

4. It is the view of the present study that functions are the product of forms in positions. Thus, the functions of various tense forms are deduced from observing these tense forms in natural contextual environments. Moreover, it is believed here that the reductive approach in linguistics is more productive than the expansive one, i.e. to analyse whole utterances into their components is more conducive to the understanding of these components than when the latter are studied separately or when the direction of the analysis is reversed.

For all this, a corpus of more than five thousand sentences has been collected as written responses from a fairly large number of native speakers of English and Arabic. This corpus has been analysed for functions of verbal forms in English and Arabic and for their co-occurrences with temporal adverbials.

5. Chomsky's transformational theory of language which was originally presented in his book, Syntactic Structures, and later adapted by him as well as by other transformationalists has also been found relevant to the present research. It has consequently been

used to analyse tense forms in both English and Arabic.

Structural linguists lay a great emphasis on the absolute necessity of separating the three levels of phonology, morphology, and syntax in any linguistic description. This rigidity of separation, however, is not so much adhered to by the transformationalists. These ^{two} generally recognize three levels of linguistic analysis, though for them they are the phrase structure level, the transformational structure level, and the morphophonemic level. Nevertheless, transformationalists are not against mixing levels.⁷

One of the fruits of this transformationalist approach to language, relevant to the present study, is the pioneering and promising attempts in the field of investigations into the relationships between semantics and syntax. Transformational theories assert that the phonological or the graphical component of any utterance is the product of the underlying phrase structure, or P-rules, of that utterance. The rules of the transformational level help to 'filter' the surface structure, i.e. the phonological component, from its basic deep structure, i.e. its phrase

⁷R. L. Allen, The Verb System of Present-Day American English (The Hague: Mouton and Co., 1966), p. 83

component. The semantic component of any utterance, according to such theories as that of Katz and Postal, is to be directly deduced from the phrase structure. Thus the deep structure comes to be the foundation for both semantics and syntax.⁸

Such theories of what is sometimes called 'generative semantics' are found to be of use in the present study. Consequently, this research will suggest a transformational approach to the understanding of tense forms and meanings in both English and Arabic.

⁸See J.J.Katz and P.M.Postal, An Integrated Theory of Linguistic Descriptions (Cambridge, Mass.: The M.I.T. Press, 1965).

CHAPTER TWO

TIME AND ORDER

(A) Introduction

According to the Oxford Dictionary, the word 'time' etymologically comes from the root <ti> which means 'to stretch' or 'to extend'. The Dictionary also gives general time the following definition: "The indefinite continuous duration regarded as that in which the sequence of events takes place."¹ The Encyclopaedia Britannica gives a similar definition of time as "a basic concept that deals with the occurrence of events."²

Modern science holds a more sophisticated view of time. Physicists regard time as the fourth dimension of objective reality. They also give 'time' some specific qualities. According to them, time is characterized by being (a) linear, (b) infinitely durational, and (c) divisible into an infinite number of parts that are of an infinite variety of magnitudes (Bull, p.4).

In less sophisticated terms, time can also be viewed as that quantity which clocks are used to measure. As a working definition for the present study, however, time is viewed as a bidirectional duration which has no definite end on either side and in which events are

¹The Oxford Dictionary, Vol. XI, p. 37

²Encyclopaedia Britannica, Vol. 21, p. 1159

measured relative to each other or to some real or hypothetical point of reference. According to this definition time is an ever-moving entity which is extended on both sides of the simultaneous present moment which is itself a rapidly fleeting point that is always moving forward. To view time as 'bidirectional' is to enable us to talk about past events, or to go back in time, as it were. Yet, for the purposes of linguistic study, as well as for other practical purposes, time may be considered as a forward-moving line with the present moment at its centre.

(B) Kinds of Time

There are various kinds of time systems, such as the rotational time system which includes lunar time, solar time, and sidereal or equinoctial^t time, and which is based on measuring the passing of time by the real or apparent motion of some celestial bodies. Another system is the ephemeris system in which time is based on the revolution of the earth about the sun. Then there is the atomic time system where time is based on the quantity of change that takes place within the atoms.³

The kinds of time that are linguistically relevant are, however, 'personal time' and 'public time'.

³For a detailed discussion on each of these time systems, see Encyclopaedia Britannica, Vol. 21, pp. 1159 - 1163

Personal time, or as it is sometimes called the 'psychological time', is the time which is based on the individual's emotions.⁴ Personal emotions are used as a yardstick of measurement of time. Such words as 'long' and 'short', when applied to describe periods of time, are really expressions of the individual's emotions and state. Spending many hours chatting with somebody we love is a 'short' time whereas waiting for five minutes at the bus-stop may seem a very 'long' time indeed especially when one is already late for an important appointment.

This flexibility of personal time has made it necessary for all advanced civilizations to agree upon some other time to be measured by a more stable yardstick. Various periodic events have been used for this purpose. However, the two most common ones are the rotation of the earth on its axis and its rotation about the sun. The regularity of these events are used by members of advanced societies to 'time' their own activities in relation to. Thus, clocks and most other time-measuring instruments are nothing but substitutes for the cosmic phenomenon of the earth moving round itself and round the sun simultaneously. Such time units as 'hour', 'minute', 'month', 'year', etc. are consequently to be

⁴The terms personal time and public time are adopted from W.E.Bull, op. cit., p.4

seen as public-time measurement periods.

(C) Order Relations in Time

It is obvious that all events take place in time and take time to take place. The temporal relationships between any two events or between any one event and a point of reference can only be one of the following three order relations: (a) anteriority, (b) simultaneity, or (c) posteriority. That is to say, an event can either precede, co-occur with, or follow another event or a point of reference. The Encyclopaedia Britannica has this to say on order relations in time:

There is a definite order in which any two nonsimultaneous events occur at some location. If A and B are such events, either A occurs before B or B occurs before A. Between two nonsimultaneous occurrences there is a lapse of an interval of time.⁵

Consequently, it becomes apparent that order, like time, is bidirectional in nature. It is also important to point out that no order relationships in time are possible without the existence of a point of reference and a sense of direction..

(D) Measurement in Time

The temporal location of any event (E) in relation to a point of reference (P) has just been said to be either anterior, simultaneous, or posterior. Moreover, the temporal distance between any E and any P could also

⁵Encyclopaedia Britannica, Vol. 21, p. 1159

be measured in various ways.

One way of measurement is by using a unit that consists of a temporal quantity which has no direction, such as 'an hour', 'a week', 'five minutes', etc. By combining one of the order relationships with such a temporal quantity, both the temporal location and distance of an E in relation to a P could be measured, e.g. 'an hour ago', 'after a week', 'right now', etc. Thus in a sentence like 'I saw him an hour ago', the event 'see' is shown to be earlier ~~than~~ the present point of reference by the presence of the morph 'ago'.⁶ The temporal distance of E from P can however only be measured by the temporal quantity 'an hour'.

Another way of measuring the temporal distance of any E from any P is by the use of calendar units of time. This is because the temporal position of such units as 'yesterday', 'tomorrow', 'next week', '1970', 'today', 'last February', etc. is previously determined and agreed upon as part of the fixed periods of public time. Thus in the English sentence 'I saw him yesterday', the morph saw indicates that the event see took place before the present point of reference whereas the morph yesterday tells us more about the temporal location or its distance from 'now'.

⁶It will be shown at a later chapter that the verb saw also contains another 'earlierness' morpheme.

The third way of measurement is by using points of time as can be read on the face of a clock or any mechanical time-measuring device. This is so because all events actually take place at some time. Thus, if that time of occurrence could only be given an agreed-upon label and if the point of reference is determined, the distance of E from P could then be easily calculated. In the English sentence, 'I shall go at ten o'clock,' for example, E is known to take place after the P, 'now', by the presence of the morphs shall and go together. But howmuch later than 'now' can only be known from the temporal point 'at ten o'clock'.

It thus seems that the time-honoured conviction that verbal forms indicate the times of occurrences of events cannot be accepted without some qualifications. Verbal forms in English, for example, do certainly tell us about whether an event is viewed from a point at present or a point in the past. They also tell about the order relation of that event to this point. But the time of occurrence as such seems to be only indicated by adverbials of time, as has just been observed in the sentences given above. Bull's remark that "no [Spanish] tense form locates an event in time" (Bull, p.62) is thus justifiable and seems to be equally applicable to English and Arabic and it might indeed be a linguistic universal.

CHAPTER THREE

DEFINITIONS AND DELIMITATIONS

(A) Definitions

The following terms and concepts are basic in the discussions of the present study. It is thus imperative to define them at this early stage.

1. Tense

The English word 'tense' derives from the Latin word tempus which means 'time' in English. It is generally agreed among grammarians and linguists that tense is a characteristic of verbs in most languages. As a grammatical category, however, tense has been given many definitions by various writers.

Otto Jespersen defines tense as "the linguistic expression of time-relations, so far as these are indicated in verb forms."¹ John Lyons also agrees that "tense has to do with time-relations", and adds that

the essential characteristic of the category of tense is that it relates the time of the action, event, or state of affairs referred to in the sentence to the time of utterance (the time of utterance being 'now'). (Lyons, p.304)

B.M. Strang offers a somewhat similar definition when she defines tense as "any of the forms in the

¹Otto Jespersen, A Modern English Grammar (Heidelberg: Carl Winters Universitätsbuchhandlung, 1931), Part IV, p.1

conjugation of a verb which serve to indicate the different times at which the 'action' is viewed as happening or existing.² Similarly, Simeon Potter defines tense as a "verbal form indicating whether the action or state is viewed by the speaker as past, present, or future."³ In the same vein, R.A. Close points out that "in tenses we are concerned with aspects of ACTIVITY and aspects of TIME."⁴ A more formal definition of tense is the one given by R.L.Allen. Allen uses the term 'tense' to refer to "all the different possible forms of verb-clusters (such as may be found in a complete paradigm of one verb" (Allen,p.114).

Provisionally, tense is defined at this stage of the present study as the formal indication of the notional temporal fields (i.e. past, present, future) in the verbs of any given language. A more elaborate definition will, however, be worked out at a later stage in the study.

2. Aspect

The category of aspect has been defined, rather

²B.M.Strang, Modern English Structure (London: 1962), p.126. 'underlining is mine'

³S.Potter, Language in the Modern World (Middlesex: Penguin Books Ltd., 1968), p.213.

⁴R.A.Close, English as a Foreign Language (London: George Allen and Unwin Ltd., 1962), p.70.

ambiguously, by Strang as "any one of the several groups of forms in the conjugation of the verb which serve to indicate the manner in which the 'action' denoted by the verb is considered as being carried out" (Strang,p.126). Allen defines aspect as the speaker's way of 'looking at' a Predication that he makes" (Allen,p.219).

In the present study, the term aspect is mainly used to refer to the relationship of an action/state in time to a given point of reference. Aspectual relationships for English and Arabic are specifically defined here as those of anteriority, simultaneity, and posteriority. Traditionally, the first variety of aspect is often referred to as that of perfection or completion whereas the last two together are said to represent imperfection or incompletion. John Lyons points out that "like tense distinctions, these ... have to do with time; but (as Hockett puts it) with the 'temporal distribution or contour' of an action, event or state of affairs, rather than with its 'location in time' " (Lyons,p.315)

3.Mood

A mood in grammar has been defined as "a set of one or more grammatical devices for 'marking' sentences according to the speaker's commitment with respect to the factual status of what he is saying" (Lyons,307)

Lyons also mentions that "mood, like tense, is frequently realized by inflecting the verb or by modifying it by means of 'auxiliaries'," and adds that "the categories of mood and tense may 'intersect' in various ways" (Lyons, p.307).

In the present study, however, the term 'mood' is only used in English in reference with such auxiliaries as will, shall, may, can, should, must, dare and need. These auxiliaries are here called modals and verb phrases that are introduced by them are said to indicate some mood. Allen points out that a verbal phrase in English may also be said to exhibit quasi-mood if it includes one of the following secondary auxiliaries: be going to, be able to, have to, have got to, used to, 'd better, and 'd rather" (Allen, p.258).

In the case of Arabic, on the other hand, the term mood is used here in reference to the three syntactically-conditioned modal endings /-u, -a, -Ø/ which are attached to the non-past verbal base to indicate the indicative, subjunctive, and jussive moods respectively. Thus the verb /yaktub-/ 'writes', for example, could assume any of the following modal forms in Arabic:

/yaktubu/ = indicative mood

/yaktuba/ = subjunctive mood

/yaktub/ = jussive mood

4. Verb

Plato is believed to be the first who classified a class of words as 'verbs'. He defined the verb as "a sign expressive of an action."⁵ Then came Aristotle who seems to be the first to associate verbs with time-reference. He defined the verb as any meaningful sound which carries the notion of time and of which no part has any meaning by itself (Dixon, p.31). The Greek grammarian Dionysius Thrax defined the verb as a part of speech without case inflections, but with inflections for tense, person, and number, indicating an activity (Dixon, p.43). In his book, What is Language?, Robert Dixon is perhaps right in pointing out that definitions of the verb "changed very markedly from Plato, Aristotle, and the Stoics to Thrax, but have been relatively far more constant since then" (p.44).

Modern linguists and grammarians seem to give less consideration to definitions as such. One of the few recent definitions of the English verb is that of James Sledd presented in his book, A Short Introduction to English Grammar.⁶ In it, he defines a verb

⁵R.W.Dixon, What is Language? (London: Longmans and Co., 1965), p.31.

⁶J.Sledd, A Short Introduction to English Grammar (Chicago: Scott, Foresman and Co., 1959).

as. "any word belonging to an inflectional series which marks the difference between present and past tense and whose members will fit into a pattern like sing , sings, sang, sung, singing or play, plays, played, played, playing" (Sledd,p.73). R.L.Allen also tries a definition for verbs. Verbs, he says, are "lexemes that can occur as the nuclei of verb-clusters (i.e. clusters occurring in V positions) and that have three time-oriented forms and three non-time oriented forms" (Allen,p.101). The two definitions of Sledd and Allen, it may be noticed, are not much different though Allen's is perhaps needlessly more complex.

For all the practical purposes of the present study, Sledd's definition mentioned above is adequate for English. Consequently, it is here adopted as a working definition throughout the coming discussions. As far as Arabic is concerned, a verb is similarly defined here as any form that belongs to an inflectional series like /katab/, /yaktub/, /kātīb/, /maktūb/ or like /nām/, /yanām/, /nāʔim/, or like /tarjam/, /yutarjim/, /mutarjim/, /mutarjam/ in which the first two members of each series indicate the difference between past and non-past.

5. Verbex

A verbex is a verb that has temporal orientation

and is formally marked for that.⁷ In both English and Arabic, all finite verbs are verbexes. Formally, they assume either the present-tense or the past-tense forms. Thus the first two forms in English and Arabic verb series like the ones given above are verbexes since they are formally marked by tense markers to be oriented either to a past point of reference or to the present moment of utterance of the sentence in which the verbexes occur.

6. Verbid

Verbids are verbs that lack temporal orientation, i.e. that are not formally marked by tense morphemes. Yet in both English and Arabic, verbids do formally indicate temporal relations of anteriority, non-anteriority, simultaneity, or posteriority by special aspectual markers.

Most verbs in English have six forms in their conjugations. The verb write, for example, has the following six forms: I write, he writes, I (he) wrote, I have written, he is writing, and we shall write. The first three forms, i.e. write, writes, and wrote are verbexes whereas the last three, viz. written, writing, and write are verbids.

⁷The terms verbex and verbid are adopted from Jespersen's A Modern English Grammar on Historical Principles quoted in full earlier.

In Arabic as well, any verb in a verbal series that is not a verbex is a verbid. Thus forms like /nāʔim/ and /maktūb/, often referred to as the active and passive participles of /yanām/ 'sleeps' and /yaktub/ 'writes' respectively, will also be called verbids in the present study.

7. Verbal Cluster

A verbal cluster is any verbal phrase, i.e. a group of words usually made up of one or more auxiliaries plus a verbid, that can replace or be replaced by a single verb in any sentence.

8. Verbex Cluster

A verbex cluster is any verbal phrase that can replace or be replaced by a single verbex in any sentence.

9. Verbid Cluster

A verbid cluster is defined here as any verbal phrase that can replace or be replaced by a verbid in any sentence.

10. Root

A root in Arabic is a ^{dis}continuous consonantal morpheme which generally has a lexical meaning of its own. The linguistic reality of roots in Arabic can be verified by the special patterning rules that govern the distribution of the components, often

called the radicals, within a given root.⁸

The majority of roots in Arabic are trilateral like {KTB}, which is the common root of a long list of related words, e.g. /KaTaB/ '(he) wrote', /yaKTuB/ '(he) writes', /KiTāB/ 'a book', /maKTaBa/ 'a book-shop, a library', etc. Quadrilateral roots, however, are not uncommon in Arabic. They can be seen in verbs like /TaRJāM/ 'translated', /Ba9THaR/ 'scattered', etc.

11. Stem

A stem in Arabic is a combination of a root morpheme and a vowel morpheme. Different vowel patterns may intertwine with the same root to form different stems that all share a common core of semantic identity brought about by the lexical meaning of their common root. Thus /katab-/ , /-ktub/ , /kātib/ , /-ktūb/ are all verbal stems of the verb 'to write' in Arabic. They are all the product of a combination of the root {KTB} with different patterns of vowel morphemes. Vowel morphemes generally assume the function of "specifying the grammatical role of the stem, past tense of the verb, singular or plural of noun, active

⁸For a discussion on these rules, see: (a) J.H. Greenberg, "Patterning of Semitic Verbal Roots," Word, 6, 1950, pp. 162-181, and (b) Gustav Herdan, "The Patterning of Semitic Verbal Roots Subjected to Combinatory Analysis," Word, 18, 1962, pp. 262-268.

or passive participle, verbal nouns and the like."⁹

12. Affix

Affixes are continuous morphemes added either before or after verbal stems in Arabic. Thus the verb /yaktub/ '(he) writes' is made of the stem /-ktub/ plus the pre-stem affix, i.e. prefix, /ya-/; whereas the verb /katabtu/ '(I) wrote' consists of the stem /katab-/ plus the pronominal suffix /-tu/.

Pronominal affixes added to verbal stems all share the grammatical function of specifying the person, number, and gender of the subject and/or object in Arabic. Moreover, the presence or absence of pronominal prefixes specifically helps to indicate different verbal time aspects, as will be explained later in the study.

13. Base

A base in Arabic is a verbal stem plus a prefix and/or a suffix. Thus all the following are considered as verbal bases here: /katabnā/ '(we) wrote', /katabat/ '(she) wrote', /yaktubūna/ '(they) write', /ʔaktub/ '(I) write', etc.

⁹Salih J. Altoma, The Problem of Diglossia in Arabic (Cambridge, Massachusetts: Harvard University Press, 1969), p.31.

(B) Delimitations

1. The main objective of the present study being an investigation of the indication of time and order in the verbal system, the main topics under consideration here are the two categories of tense and aspect. Temporal adverbials are also analysed since their co-occurrences with different verbs help to specify various temporal locations in both English and Arabic. Mood is only mentioned in so far as it relates to tense and temporality. Other grammatical categories that are also indicated by verbs in both English and Arabic, such as person, number, and voice are not dealt with here since they are irrelevant to the indication of temporality as such.
2. It is not the purpose of this study to analyse and discuss all the morphemic qualities and peculiarities of the English and Arabic verb systems. Such phenomena are studied only as far as they are relevant to the analysis of the tense structure. Neither is it the objective here to describe the irregularities and idiosyncracies of all sub-classes of verbs in the tense systems of the two languages. The objective is rather to present and analyse the general structure and the overall framework of the two tense systems.
3. English in the present study is represented by modern

standard English. All the sentences used throughout the study as well as the data of all the three tests given in the course of the research are samples from modern written English. On the other hand, by Arabic is here meant Modern Literary Arabic which is a modernized version of Classical Arabic found mainly in the written form and is only used in its spoken form in a limited number of formal occasions.

4. Sentences provided by the data of the tests given to a number of native speakers of English and Arabic are mainly made use of in the final chapters in Parts Two and Three respectively. In other chapters of the study, examples are either especially made up by the writer or quoted from other writers. In all cases, however, examples are always checked against the usage of some educated native speakers of English and Arabic respectively.
5. According to the accepted practice in Arabic and Semitic studies, the past form of the simple triliteral verbs conjugated for the masculine third person singular is used in this study as a representative of other conjugations and other types of verbs. Moreover, as a cover-symbol for all triliteral verbs in Arabic, the verb /fa9al/ and its various conjugations are traditionally used by Arab grammarians. These again will be made use of in the present study as

a practical convention.

6. Case endings in nouns are usually not included in the transliteration of Arabic sentences throughout the study, as these are irrelevant as far as temporality is concerned. On the other hand, modal endings of verbs are indicated in the transliterations only when this is considered relevant to the point under discussion.
7. The transliteration system used for Arabic is same as that used by Ziadeh and Winder.¹⁰ However, two modifications have been introduced: the symbol 'g' is used for the voiced pharyngeal fricative instead of the symbol 'ḡ' used by Ziadeh and Winder. Secondly, the symbol '?' is used in the present study for the voiceless glottal stop instead of the symbol 'ʔ'. The full list of the transliteration symbols and their Arabic originals is as follows:

<u>Arabic Symbol</u>	<u>Transliteration</u>
•	ʔ
ب	b
ت	t
ث	th
ج	j

¹⁰Farahat J. Ziadeh and R. Bayly Winder, An Introduction to Modern Arabic (Princeton, New Jersey: Princeton University Press, 1957), pp. 3-14.

Arabic SymbolTransliteration

ح	h
خ	kh
د	d
ذ	dh
ر	r
ز	z
س	s
ش	sh
ص	s
ض	d
ط	t
ظ	z
ع	9
غ	gh
ف	f
ق	q
ك	k
ل	l
م	m
ن	n
هـ	h
و	w
ي	y
ا	a
أ	u
إ	i
آ	ā
أ	ū
أ	ī
أ	aw
أ	ay

PART TWO

THE ENGLISH TENSE SYSTEM

CHAPTER ONE

DESCRIPTION OF CORPUS AND TESTS

(A) Description of Corpus

The analysis of the English tense system presented here has been primarily based on formal criteria. There are, however, many means by which verbal forms can be obtained for linguistic research. One way of doing it is when the investigator resorts to his own knowledge of a certain language as the main source of obtaining specific linguistic forms and samples for analysis in that language. A second approach is by eliciting responses from one or more native speakers of that language. A third means still is by analysing some written texts chosen at random in that language.

Each of the above-mentioned procedures for getting data has its advantages and disadvantages. The first carries the risk that the linguist might be driven by some personal preference to justify, and even to create, some 'ungrammatical' linguistic samples. The second procedure is especially risky when the researcher does not himself know the language he is trying to analyse and thus may not at all get what/^{he} is looking for from his informants. The third procedure has the obvious shortcoming that no text, no matter how extensive, can be exhaustive. The best procedure thus seems to be one

that makes use of what is good in all the three without necessarily falling in the traps of any of them.

The present study, consequently, obtains the linguistic forms necessary for analysis by a procedure which is an amalgamation of all the three mentioned above. To obtain a fairly representative corpus with a large variety of verb forms relevant to this study, the present writer constructed two tests and gave them to about one hundred and fifty native speakers of English from among the students of Glasgow University. To these tests, 3289 sentences were received as written responses.

Even with this large corpus, it was not unexpected to find that certain verb forms were only represented by few instances or even completely missing. The present writer thus had to make up sentences of his own to illustrate certain points. Such sentences, however, were always checked against the usage of educated native speakers of English before being finally used as a piece of evidence. For the same reason, the usage of other writers and analysts was sometimes quoted. Even here, however, checking against the usage of other native speakers was the policy.

(B) Description of Tests

1. Test One

- (1) Objective: One of the accepted facts in the field of testing today is that a good test has to distract

the attention of the subjects from the point that is specifically tested. This makes the responses more normal and genuine as far as the point tested is concerned. Thus, though the ultimate aim of this test was to obtain as many verb forms as possible and in normal contexts, it did not specifically ask about verbal usage but about the usage of some conjunctions instead. The particular conjunctions asked for in the test were not haphazardly chosen, however. They all in fact have a strong relevance to the subject of tense and 'time-reference' in English, as they belong to that category of conjunctions traditionally called 'temporal conjunctions'.

- (ii) Format: Use each of the following conjunctions in a sentence of your own. Each of your sentences will include: a temporal conjunction + a subordinate clause + a main clause; NOT necessarily in that order, however.

- | | |
|-------------------------|------------------------|
| 1. soon after | 2. all the time that |
| 3. as long as | 4. just as |
| 5. as often as | 6. long before |
| 7. during the time that | 8. every time that |
| 9. the first time that | 10. from the time that |
| 11. to the time that | 12. no sooner |
| 13. now that | 14. once |

- | | |
|-------------------------|---------------------------------------|
| 15. since the time that | 16. the moment that |
| 17. the sooner | 18. throughout the
whole time that |
| 19. until | 20. up to the time that |
| 21. when | 22. whenever |
| 23. while | 24. as |

2. Test Two

- (i) Objective: The objective of this test was to complement the previous one by eliciting as many and as various verb forms as possible. This test, however, was more controlled than the first one in that it provided the subjects with some cues to the desired responses. Yet the subjects still had the freedom to select one of many possible verb forms for each cue. This freedom of selection can be verified by the variety of responses received from the various informants in respect of each sentence.¹
- (ii) Format: Re-write the following sentences after giving the verbs in parentheses their most suitable forms in the light of the hints given opposite each sentence. You MAY add adverbials of time to the sentences if you feel that any verbal

¹The data of this test are also used in Chapter Six in the study for another purpose.

form alone does not bring out the meaning of its hint. Temporal adverbials are like 'tomorrow', 'in the morning', 'when he arrived', 'after he comes', 'at ten o'clock', etc.

1. I (leave). /at a specific point in the
FUTURE/
2. He (leave). /at a specific point in the
PAST/
3. They (read). /right now/
4. He (come) here. /a habit that is still the case/
5. I (leave). /after a specific point in the
FUTURE/
6. We (come) by bus. /general PAST/
7. Light (travel) faster than sound. /general fact/
8. I (see) this film. /indefinitely before the present time/
9. She (arrive). /indefinitely in the FUTURE/
10. I (talk) to him. /before I met you/
11. John (finish). /before a specific point in
the FUTURE/
12. She (leave). /before a specific point in
the PAST/
13. I (meet) him. /two hours after we parted/

14. He almost /right now/
(finish).
15. He (smoke) /an old habit that is no
a lot. longer the case/
16. We left to- /at a time later than that
gether but of the first verb/
(arrive) at
our destina-
tion sepa-
rately.
17. He (study). /when I arrived/
18. He (work) /nowadays/
hard.
19. He (leave). /indefinitely after the pres-
ent moment/
20. I (open) the /right now/
door.
21. He (read). /when you arrive tomorrow/
22. He (listen) /now/
to music.
23. He (read). /all day yesterday/
24. I promised /at a time later than that of
that I (go). the first verb/
25. We (leave) /after we meet tomorrow/
together.

(C) Analysis of Responses

It is perhaps needless to say that verb forms were analysed in light of the criterion of their 'time-reference'. Thus verbids and verbid clusters, as well as pure modal verbal forms were not included at this point of the study.² Besides, verbal markers such as those of person and voice were considered as irrelevant to the question of tense. Consequently, verbs like eat and eats, on one side, and verbal clusters like is eat-
ing and is being eaten, on the other, were grouped together as having the same time-reference.

Using the verb to write as a cover-symbol, the following table shows both the FORMS of verbs and verbal clusters and their FREQUENCY of occurrence in the corpus. The frequency count is only meant to be indicative and suggestive of the occurrences of these verbs and verbal clusters rather than to be precisely representative of these occurrences.

²For definitions of verbrids and modals, refer to Chapter Three of Part One.

TABLE 1

ANALYSIS OF TYPE AND FREQUENCY OF VERBAL FORMS
 FOUND IN THE DATA OF TESTS I AND II

No.	Model Verbal Form	Frequency		Total
		Test I	Test II	
1.	write / writes	746	199	945
2.	wrote	2192	318	2510
3.	has/have written	156	55	211
4.	had written	173	32	205
5.	will/shall write	317	238	555
6.	would/should write	30	118	148
7.	is/am/are writing	29	178	207
8.	was/were writing	220	95	315
9.	has/have been writing	13	4	17
10.	had been writing	2	5	7
11.	will/shall be writing	-	15	15
12.	would/should be writing	1	-	1
13.	will/shall have written	1	52	53
14.	would/should have written	2	7	9
15.	will/shall have been writing	-	-	-
16.	would/should have been writing	3	-	3

CHAPTER TWO

THE ENGLISH TENSE SYSTEM: RELATED LITERATURE AND CRITIQUE

(A) Introduction

Table 1 on page 39 shows that there are the following verbal forms directly relevant to the system of tense in English:

write / writes	am/is/are writing
wrote	was/were writing
have/has written	have/has been writing
will/shall write	will/shall be writing
will/shall have written	-
would/should have written	would/should have been writing

Though missing in the corpus, English does have the verbal phrase will/shall have been writing which will fill up the gap on Table 1 and in the diagram above.

A cursory look back at the above two columns of verbal forms would show that in each case the verbal form in the second column is basically same as its opposite form in the first column, as far as ^{tense} ~~form~~ is concerned. Forms like those in the second column above have long been discussed by various grammarians under such labels as progressive (Kruisinga), continuous (Onions), definite (Sweet), or expanded (Jespersen and Allen).

Such forms are the subject of a detailed analysis in Chapter Four of this study. So, if we lay them aside for the time being, we are only left with the forms of the first column in the paradigm above.

We may also notice that there are formal variations among some of the forms in the first column of the paradigm, such as between write and writes, will write and shall write, has written and have written, etc. Such formal variations are to do with person and number but have nothing to do with time. Thus if we take the first form of each group in the first column as a cover symbol for all the forms in the group, we will be left with the following EIGHT ^{basic} ~~non-modal~~ verbal forms in English:

WRITE

WROTE

HAVE WRITTEN

HAD WRITTEN

WILL WRITE

WOULD WRITE

WILL HAVE WRITTEN

WOULD HAVE WRITTEN

The question of tense has thus become quite delimited.

It is now primarily a question of analyzing both the forms and functions of these verbal forms within normal contexts so as to construct a tense system structure that

explains the linguistic behaviour and formal characteristics of the above-mentioned eight forms. Such a tense structure, however, has also to correspond to the native speakers' intuitive feelings about their usage of such forms.

(B) 'Time' in the English Tense System

It has perhaps become apparent from what has been said so far that the question of tense is connected with the segmentation of time in the experience of the speakers of any language. It is thus pertinent to give a brief survey of 'time' as segmented and reflected in English. This is particularly necessary when we come to realize that 'time-reference' is at the heart of all tense systems and that different segmentations of time contribute to different tense systems in various languages.

A reference has already been made to the logical and philosophical divisions of time, i.e. past, present, and future. Theoretically, however, it might also be necessary sometimes to refer to actions that take place 'after' or 'before' any of the three principal points of reference in the present, past, and future. Thus, logically, the time hypothetical line can be diagrammatically represented as follows:

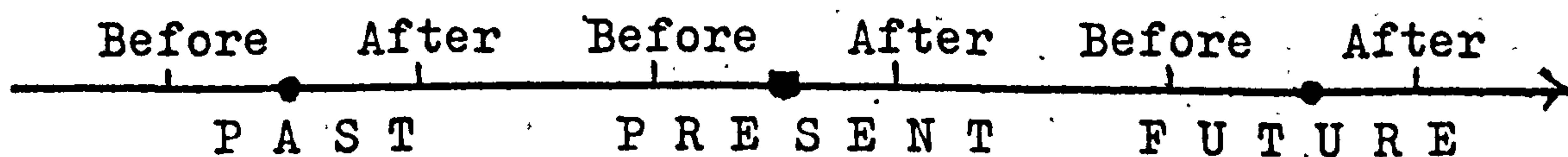


Diagram 1
The Temporal Line

Thus a completely logical and a totally specialized tense system would have nine different forms, with each to be used in reference to one of the hypothetical points on the above temporal line. However, analyses of various and unrelated languages have shown, as Bull has concluded, that there rarely is a one-hundred-per-cent logical tense system in human languages (Bull, p.24). Some languages may use one form to cover two or more temporal points or fields. Other languages may have a different segmentation of time altogether. The future, for example, may be combined with the present to form one temporal field that may be called the non-past as opposed to the past, or the past and the present may be merged to form a non-future time field as opposed to future (Lyons, p.305). Some other languages may even do away altogether with the segmentation of time as it is known to us. Such languages are often referred to as 'tenseless' languages. Hopi, as Whorf reports, is an example of such rare languages.¹

To go back to the paradigm of verbal forms on page 41, we can see that English has only got eight verbs and verbal clusters to refer to the nine hypothetical time points. The inevitable question now is how can

¹John B. Carroll (ed.) Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf (New York: The M.I.T. Press, 1959), pp. 112-113.

English accomplish this. There are two alternative answers to the previous question; viz. English is either unable to refer to one or more of the hypothetical time points, or it does so by having some forms that are not strictly specialized, i.e. they may be used to refer to more than one point or field of time.

The first answer, i.e. that English cannot refer to one or more temporal points, was excluded by a simple experiment that the present writer carried out on a number of native speakers of English. The experiment consisted of a written test that contained some English sentences in which the main verbs were included in parentheses in their base forms. Opposite each sentence on the test sheet there appeared a linguistic cue corresponding to one of the various notional divisions and relations of time.² The subjects were asked to correct the verbs in parentheses in the light of the cues they were presented with.

The following is a list of the nine hypothetical temporal points. Opposite each point is one of the linguistic cues indicating its time value and in whose light the corresponding verbal form was to be corrected:

1. The Present Moment : 'right now'

²See the previous chapter for the full version of the experimental test.

2. Before the Present : 'Indefinitely before the Moment present time'
3. After the Present : 'Indefinitely after the Moment present moment'
4. A Past Point : 'At a specific point in the Past'
5. Before Past : 'Before I met you'
6. After Past : 'Two hours after we parted'
7. A Future Point : 'At a specific point in the Future'
8. Before Future : 'Before a point in the Future'
9. After Future : 'After we meet tomorrow'

The results of the above-mentioned experimental test have indicated that English is able to cater for all temporal points and relations. Yet, the data of the test have revealed that English does so by various means. Some verb forms, such as the present simple, are given more than one temporal reference. Moreover, adverbials of time, as well as some other factors, seem to play an essential role in the process of temporal reference, as will be reported later in the study.³

This leaves us with the second alternative answer to the question asked on page 43, i.e. that one or more

³The detailed results of the experiment are reported in Chapter Six of the present study.

of the eight English verbal forms on page 41 are used to refer to more than one temporal point or field. Conversely, this means that one or more of the notional time points are not formally represented in the English tense system. Which one of the temporal points is not formally indicated is yet to be identified, however.

Before presenting its own analysis of the English tense system, the present study will survey many of both traditional and modern previous treatments of the subject of tense in English. This will put the present study in perspective with other studies.

(C) Review of Related Literature

I : Analyses in Terms of More than Two Tenses

1. The Traditional 'Six Tenses'

Traditional treatments of the question of tense, both old like Murray's An English Grammar⁴ and recent like Hook and Matthews' Modern American Grammar and Usage⁵, give the number of tenses in English as six. They drop as 'timeless' two of the eight verbal forms in English that appeared on page 41. The two forms dropped

⁴Lindley Murray, An English Grammar, Vol. 1 (York: Thomas Wilson and Sons, 1816).

⁵J.N.Hook and E.G.Matthews, Modern English Grammar and Usage (New York: The Ronald Press Co., 1965)

are those exemplified by the modal verbal clusters would write and would have written. This is attributable, according to R.L.Allen, to the desire of traditional grammarians to copy out the tense system of Latin (Allen, p.141). English, according to traditional treatments, thus has only six verbal forms that are temporally significant.

Lindley Murray gives the following labels to the traditional six tenses: the present, the imperfect, the perfect, the pluperfect, the first future, and the second future. He then gives the following sentences as examples of the six tenses, respectively (Murray, pp. 119-131) :

"He goes into the country every summer."

"I loved her for her modesty and virtue."

"I have finished my letter."

"I had finished my letter before he arrived."

"The sun will rise tomorrow."

"I shall have dined at one o'clock."

As can be seen from the examples above as well as from other traditional grammars, three of the traditional six tenses are to indicate points at the three main divisions of time, i.e. past, present, and future. The other three refer to actions or states that take place before these three main temporal points.

Murray's classification of the English tenses cited above is representative of other traditional treatments of the subject. It is the same treatment found in Curme's Parts of Speech and Accidence, for example . Curme states that "there are six tenses, present, past, present perfect, past perfect, future, future perfect."⁶ He, then, gives the following representative verbal forms respectively: return, returned, have returned, had returned, shall return and shall have returned.

A more recent^{study}, though still traditional, is that of Hook and Matthews in their Modern American Grammar and Usage. This study offers the same segmentation for the English tense system as those of Murray and Curme. Hook and Matthews present the following diagram in their book to represent the English traditional six tenses (Hook and Matthews, p.199) :

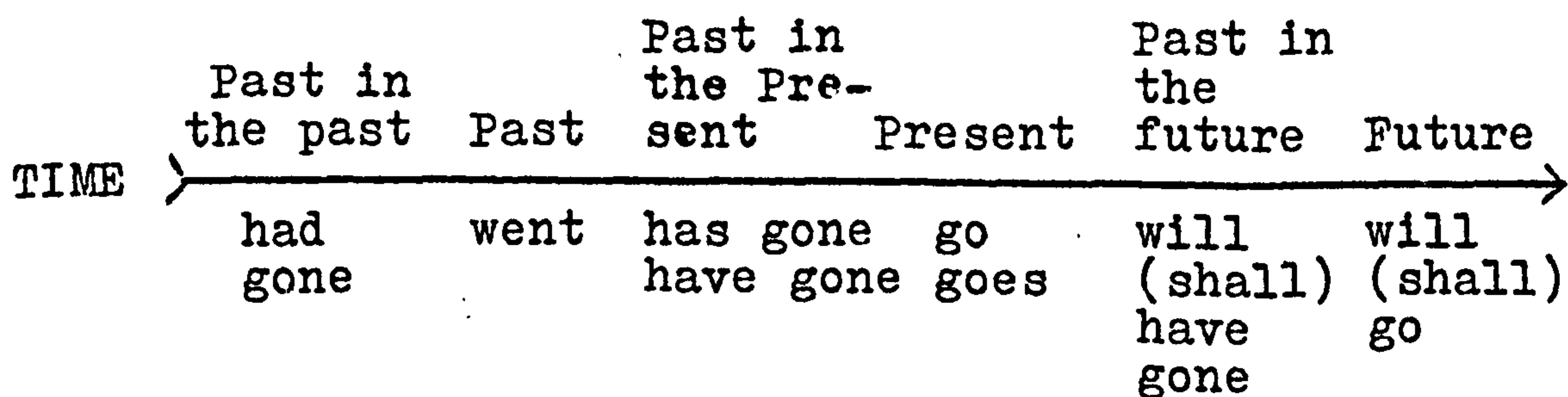


Diagram 2

The Traditional Six Tenses

The least that can be said about these traditional treatments is that they do not represent the full

⁶George O. Curme, Parts of Speech and Accidence (New York: D. C. Heath and Co., 1935), p. 231.

facts of the verb forms in the English tense system. They have deliberately ignored certain legitimate English verbal forms in favour of producing a tense system that is an exact copy of the Latin tense system. In this sense, then, the traditional analysis of English tense is incomplete and therefore unsatisfactory.

2. The Seven Tenses of Jespersen

In his analysis of English grammar, Otto Jespersen proposed seven, rather than nine or six, temporal positions on the notional time line (Jespersen, p.2). In this connection, he starts by saying that "time is divided into two parts, the past and the future, the point of division being the present moment" (Jespersen, p.1). Jespersen does not, however, recognize a present part of time since the present moment is, as he puts it, "a mathematical point and has no dimension, but is continually fleeting" (p.1). Then Jespersen goes on to present his 'subordinate times' by saying that "under each of the two divisions of infinite time we may refer to some point as lying either before or after the main point of which we are actually speaking" (p.2). Consequently, Jespersen suggests a notional temporal segmentation with seven points. This is presented in the following diagram which appears in Jespersen's Modern English Grammar (p.2) :

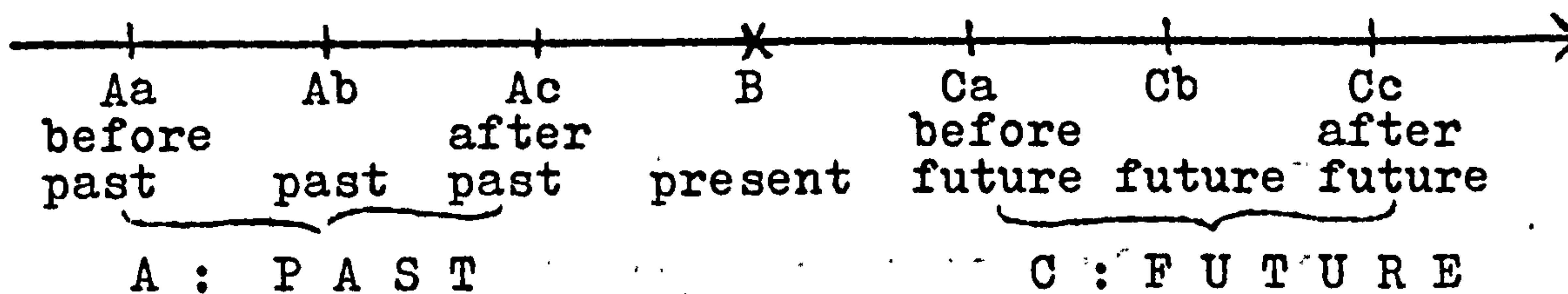


Diagram 3

Jespersen's Seven Tenses

Jespersen gives the following verb 'tenses' to represent the seven temporal points in his notional time scheme (Jespersen, pp. 353-360) :

Past Time : Everybody admired her.

He left on Monday.

Before Past : He had left before I arrived.

After Past : My greatest struggle was to come.

Present Time : Everybody adores her.

He lives at No. 27.

Future Time : He will turn up one of these days.

Before Future : I shall let you know as soon as I
shall have heard from them.

After Future : If you come at seven, dinner will
soon be ready.

Many interesting facts emerge from the sentences quoted above. First of all that Jespersen does not recognize as part of his above-mentioned tense system any reference either to before-present or to after-present. Secondly, verbal clusters like would write and

would have written do not appear in Jespersen's after-past category of time, as might be expected. Instead, Jespersen claims that for this temporal category "the usual expression is was to with the infinitive" (p.357). As for the after-future temporal category included in his diagram, Jespersen himself admits that "the need for this division of time is not often felt," and that it is formally "not kept distinct from the usual future) (p.360). Verbal clusters like have written are assigned no place in Jespersen's tense system cited above. To account for the abundant occurrences of such verbal clusters in English, Jespersen establishes a retrospective present which he defines as "a variety of present which comprises the idea of result of something that has happened before the present time" (p.360). Jespersen is rather unconvincing in establishing a retrospective present while refusing to admit a before-present temporal category in his system.

Jespersen's treatment, however, offers many new insights into the analysis of tense in English. There is first his brief, but perspicacious observation, that "the English verb has only two tenses proper, distinguished by form itself, namely the Present and the Preterit" (p.3). This two-tense principle has since been dominant in the majority of linguistic analyses of the English tense system. But, unfortunately, Jespersen did

not put the principle underlying his remark into practice in his own treatment of tense. Neither did he elaborate on and develop it. Another valuable point made by Jespersen is his suggestion to have two sets of terminology; one for the notional time and the other for verbal forms indicating notional time linguistically (p.2). He suggests the term past to refer to notional time whereas the term preterit is to be reserved for reference to verbal forms only. Jespersen fails to suggest a similar pair of terms for the present time .

Jespersen's observation that various tenses may be used to indicate the same temporal reference is also useful. For the expression of simple futurity in English, for instance, Jespersen presents the following variety of alternative verbal forms and clusters (p.354) :

1. He leaves on Monday.
2. I am dining with them on Monday.
3. I hope he loses the bus.
4. If it rains tomorrow, what then?
5. He is sure to turn up one of these days.
6. The moon will soon rise.
7. I shall call on them one of these days.
8. Come again next week.

Jespersen however does not try to go beyond the surface of these examples and analyse many of the interesting phenomena involved here. He fails, for example, to

notice the role of many conditioning factors in the selection of the above verbal forms, such as the role of temporal adverbials in sentences 1, 2, and 8; the role of the conjunction if in 3; of hope in 4; etc.

Jespersen's distinction between the tenses of 'verbs' and those of 'verbiids' is interesting. His setting up of two kinds of passive in relation to the subject of tense is also valuable. The treatments of 'expansion' and that of 'back-shifting' in tense are detailed and contain many original remarks.⁷ The lack of a clear theoretical framework in the whole of Jespersen's treatment of English tense is noticeable, however.

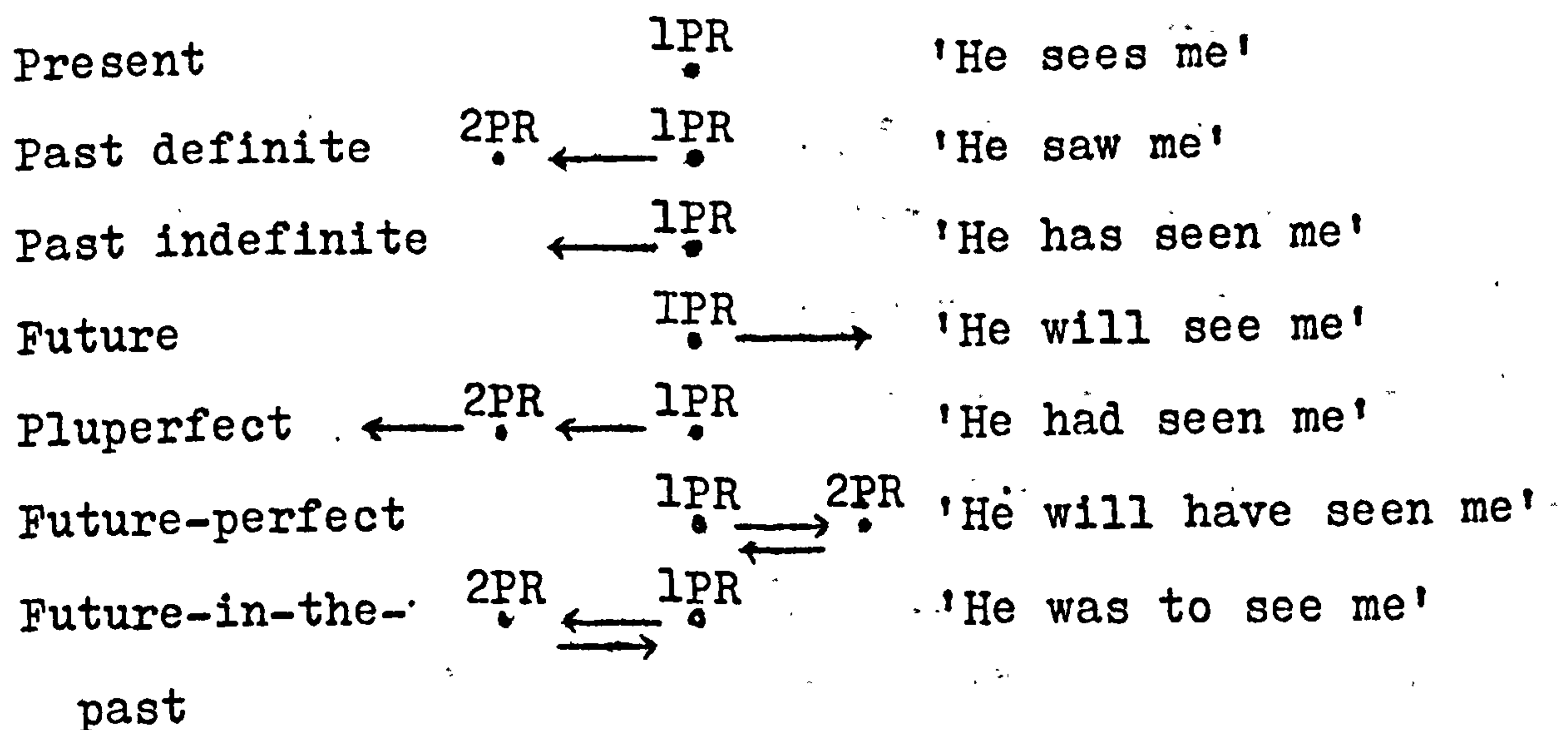
3. Leech's 'Semantic' Analysis of Tenses

Geoffrey N. Leech defines tenses as "those grammatical features of the verbal group which express relations of simultaneity or overlap of time ... or else relations of 'before'/'after'."⁸ The above definition is not clear basically because it does not seem to recognize the focal importance of a point of reference in all tenses. In other words, the definition does not tell us what the relation of 'simultaneity' is simultaneous with, or what the temporal relations of 'before'

⁷Jespersen's views on each of these matters will be touched upon when that particular problem is discussed in the course of the present study.

⁸G.N.Leech, Towards a Semantic Description of English (London: Longmans, Green and Co. Ltd., 1969), p.134.

and 'after' are relative to. Later, however, Leech recognizes the role of points of reference in the tense structure. He explicitly makes this clear when he states that "all definite formators occurring in tense specifications ... signal what we may call temporal POINTS OF REFERENCE " (p.147). He then adds that "the present moment, which enters into all tense specifications, may be regarded as the PRIMARY POINT OF REFERENCE (1PR)" (p.147). Furthermore, Leech points out that "some tense specifications in addition contain a SECONDARY POINT OF REFERENCE (2PR) " (p.147). Having said this, Leech presents the following 'visual scheme' to describe the seven-tense system of English (p.148) :



It is interesting to notice from the above that, like Jespersen, Leech does not mention verbal clusters like would see and would have seen in his 'scheme' but rather gives was to see as representative of the after-past temporal category. Unlike Jespersen, however, Leech does

account for verbal clusters like has seen as representative of the before-present temporal category.

In his analysis of English tense, Leech rightly pays great attention to the close relationship between temporal adverbials and the grammatical category of tense. Leech points out this close association between tenses and adverbials of time "by the special limitations of co-occurrence which make, for example, *'I will see him yesterday' and *'I have lived here until next week' meaningless sentences" (Leech, p.134). Finally, it may suffice to mention that Leech's treatment of tense, despite its brevity, is interesting and perceptive.

✓4. Reichenbach's 'Logical' Tense System

In his book, Elements of Symbolic Logic, Hans Reichenbach does recognize all the nine temporal locations in time.⁹ To acquire a better understanding of any tense system, Reichenbach suggests a tripartite structure. In this respect, he claims that every tense form is only understandable in relation to three 'points'. These points are: the point of the event, the point of reference, and the point of speech. The point of speech can only be at the present moment of utterance, i.e. 'now'. Relative to the point of speech, the point of reference can be earlier, simultaneous, or later. More-

⁹(New York: The Macmillan Company, 1948), p.297.

over, the point of event can in turn also be simultaneous with, after, or before the reference point. Thus we come to have nine alternatives which Reichenbach calls the fundamental forms (p.296).

Having presented this general framework, Reichenbach proceeds to apply it to the explanation of the English tenses. For this purpose he uses simple illustrative figures like the following to represent time lines while the letters E, R, and S are to stand for 'point of event', 'point of reference' and 'point of speech', respectively (p.290) :

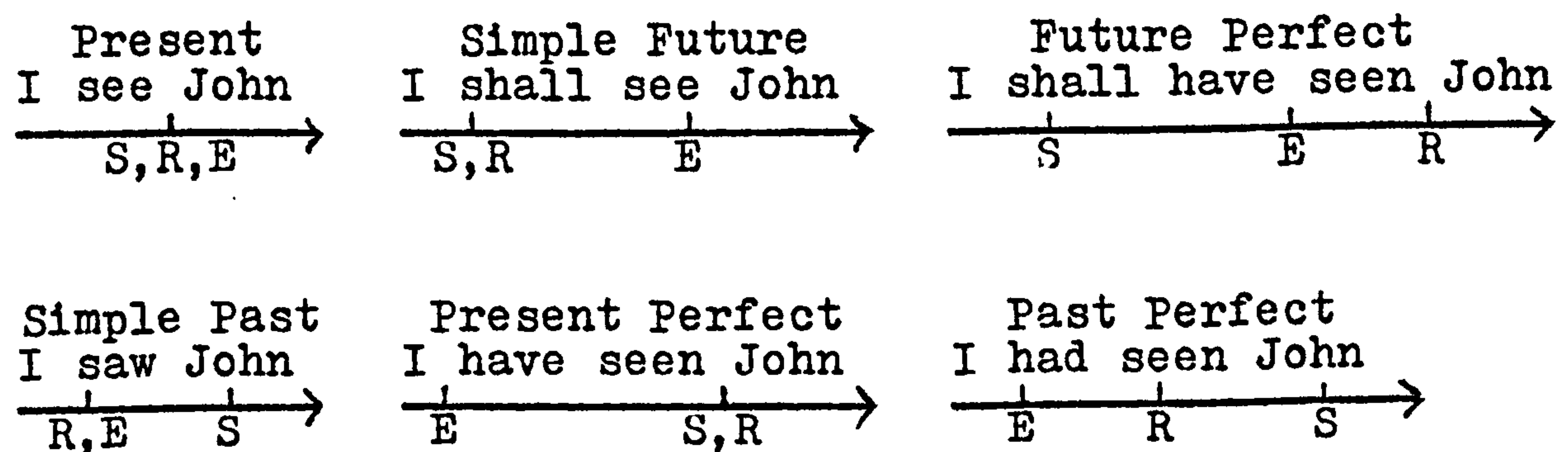


Diagram 4

Distribution of Reichenbach's

Three 'Points' in Some Actual English Sentences

Reichenbach goes a step further in the application of his tripartite tense structure to the English tense system when he presents a chart representing the full range of the '9 fundamental forms' in English. He also suggests a new terminology to replace the traditional one for English 'tenses'. In this chart "the position of R

relative to S is indicated by the words 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" (Reichenbach, p.297).

<u>Structure</u>	<u>New Name</u>	<u>Traditional Name</u>
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	-

The six English sentences that were diagrammed on the previous page represent, respectively: simple present, simple future, anterior future, simple past, anterior present, and anterior past. For the posterior past, Reichenbach gives sentences like "I did not expect that he would win the race," and "The king lavished his favor on the man who was to kill him" (p.297). As for the posterior future, Reichenbach admits that English has no

established form for it and is thus 'expressed by transcriptions' (p.297). He gives the following sentence as an example for this: "I shall be going to see him," and adds that the sentence speaks "not directly of the event E, but of the fact of preparation for it" (p.297). Reichenbach gives no example of his suggested posterior present. It would also be interesting to see how he distinguishes between this and his simple future as English does not in fact formally distinguish between them.

Consequently, it seems that Reichenbach is more interested in logic than in the objective description of the formal facts of English tense. His chart above speaks of '9 fundamental forms', yet in practice he presents us with seven forms only since all the three temporal categories of posterior present, simple future, and posterior future are indicated by the same verbal cluster in English, viz. will write, for example. It might have been better if he had called them the nine 'temporal locations' instead of forms. Again nothing but logical considerations seem to have prompted Reichenbach to give three names to the same verbal cluster. The major drawback in Reichenbach's proposed tense structure, however, is his failure to account for verbal clusters like would have written. Thus Reichenbach accounts for only seven verb forms out of the fundamental eight given

on page 41. Therefore, his analysis is again incomplete and falls short of fully explaining the facts of the English tense system.

Reichenbach, however, has some very valuable views on many points that are closely related to the question of tense. His explanation of the 'sequence of tenses' in English is interesting and convincing. His two principles in this respect, viz. that of the 'permanence of the reference point' and that of the 'positional use of the reference point' are perceptive, though not exhaustive.¹⁰

5. Allen's 'Divisions' and 'Relationships' of Time

The analysis of the English tense system which appears in Allen's Controlled English¹¹ is very similar to that of Reichenbach which has just been reviewed. Corresponding to Reichenbach's 'points of reference' are Allen's three different 'kinds of TIME: the past, the present, and the future. Allen introduces the term 'time-relationship' to refer to three temporal positions relative to the three kinds of time. Thus 'time-relationships' are 'Earlier Time', 'Same Time', and 'Later Time'. The following figures are given by Allen to explain the English tense structure by referring to

¹⁰Reichenbach's views on these subjects will be discussed later in their relevant places in this study.

¹¹Robert L. Allen, Kontrollu Ingilizce (Controlled English) (Istanbul: Amerikan Bord Nesriyat Dairesi, 1948 - 50).

three 'kinds of time' and three 'time-relationships':¹²

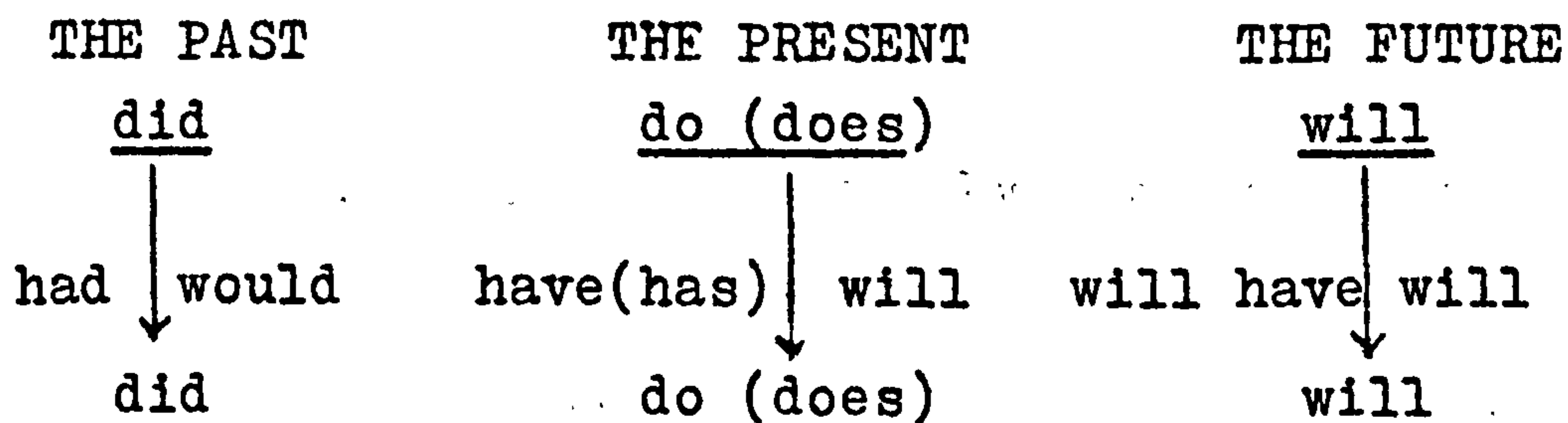
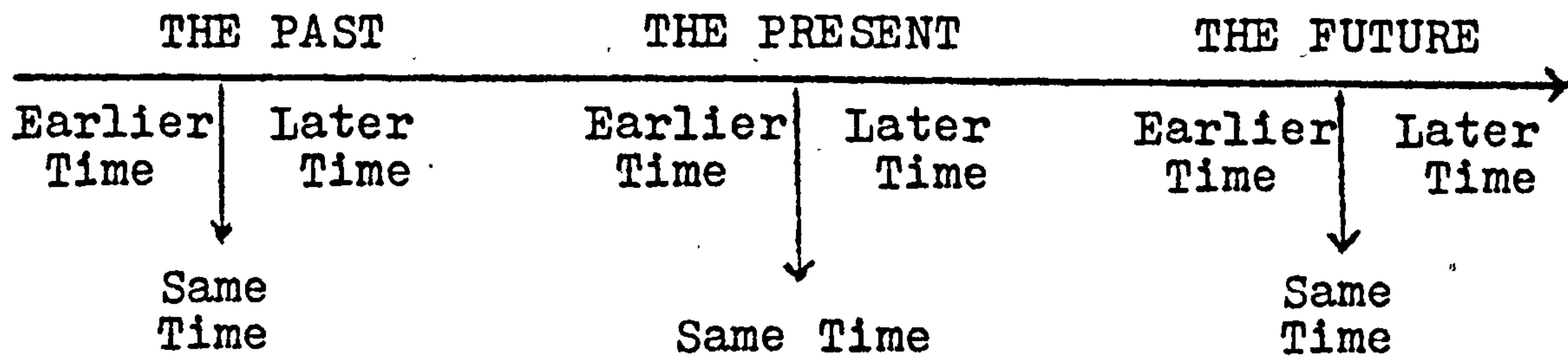


Diagram 5

Allen's Temporal 'Kinds' and 'Relationships'

As may be easily seen from Allen's above diagrams, they contain a lot of formal duplicates. First of all, the three forms did, do (does), and will represent both temporal kinds and temporal relationships in the diagrams. Then the same form will appears in four different places in the above diagrams. There also seems to be little justification in putting the figure on 'THE FUTURE' on par with the other two figures since formally it is only represented by one characteristic form in English, viz. will have. Moreover, and again

¹²Ibid., Book II, p. 291 (The diagrams appear with slight modifications in Allen's The Verb System of Present-Day American English (The Hague: Mouton and Co., 1966), p.194.

similar to Reichenbach, verbal clusters like would have written are missing in the figures above. This will leave one of the eight fundamental forms of Table 1 still unaccounted for. Consequently, Allen's analysis of the English verb system is likewise incomplete.

6. Bull's 'Axes' and 'Vectors'

In his excellent, though somewhat philosophical, treatment of the question of tense in Spanish and briefly in English, W.E. Bull starts by constructing a hypothetical tense system after a lengthy general discussion of various related aspects. Bull's theoretical tense system is mainly based on three 'vectors' and four 'axes of orientation'. His four axes of orientation are somewhat similar to Reichenbach's three 'points of reference' and one 'point of speech'. The 'prime point of orientation', PP, Bull states, is the moment of speech, i.e. the present moment. This is because "man experiences reality only at PP" (Bull, p.23). The other three axes of orientation are: the 'retrospective point of orientation', RP; the 'anticipated point of orientation', AP; and the 'retrospective anticipated point', RAP. To explain the use of RAP, Bull says that "if RP can be recalled at PP and if AP can be anticipated from PP, then total recall would be impossible unless one could remember at PP that he once anticipated an axis from RP " (p.23).

Then Bull explains what he means by 'vectors' when he states that

any act of observation at an axis of orientation (symbol: P) may be considered to have direction. The observer may focus upon a simultaneous event (zero direction), upon an event anterior to P (minus direction), or upon an event posterior to P (plus direction). Any fixed direction of observation shall be called hereafter a vector (symbol: V), and all possible directions of observation from P may then be expressed by the formulas POV , $P-V$, or $P+V$. (p.14)

This theoretical tense system of four axes of orientation and three vectors is then applied to the analysis of the Spanish tense system. However, Bull gives us some occasional references to the English tense system. For example, he explains the verbal form will have sung by the formula $E(AP-V)$, in which the symbol E stands for Event which is formally represented by the base of the main verb in the verbal construction. The formulas $E(RP-V)$ and $(RP+V)$ represent the verbal clusters had sung and would sing, respectively. (Bull, p.31)

In connection with English also, Bull's approach of vectors and axes seems to account for all the eight verbs and verbal clusters found in the paradigm on page 41. For this purpose, Bull suggests the following diagram which explains the basic structure of the English tense system according to his theory: (p.31)

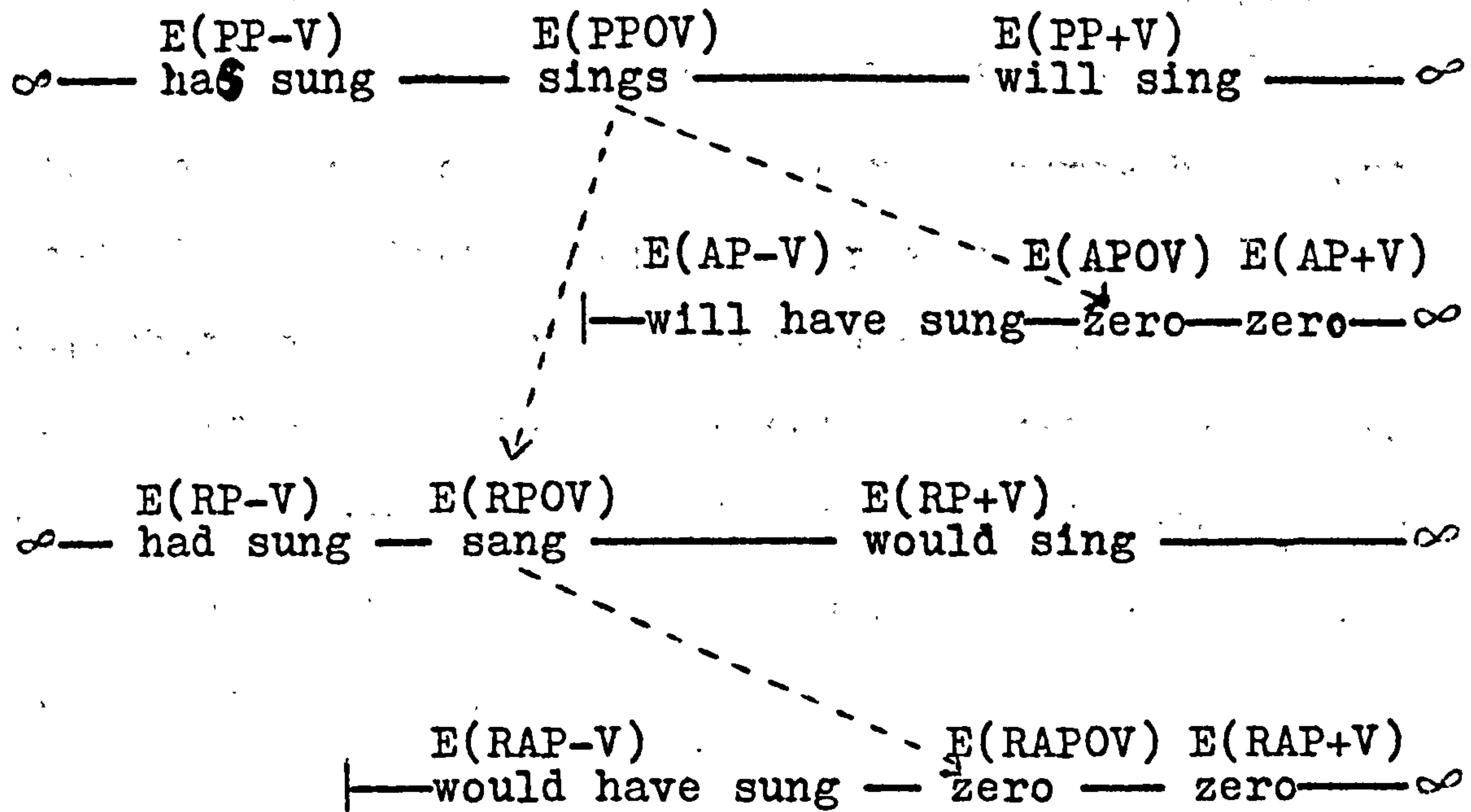


Diagram 6

Bull's Illustrative Chart for the
Distribution of 'Vectors' and 'Axes' in the
English Tense System

In the above diagram, the base of the verb, E, is represented by sing; the minus vector, -V, by sung; the zero vector, OV, by sings, sang; the plus vector, +V, by will, would; the prime axis of orientation, PP, by has, will, sings; and the retrospective axis of orientation, RP, by had, would, sang. Both AP and RAP are not represented by single verbal forms in English. The former is a combination of (PP) + (V), whereas the latter is a combination of (RP) + (+V) + (PP) + (-V).

In spite of the originality of his research and the value of many of his views, Bull does not probe deeper to tell us, for example, what it is exactly in

sung that makes it a 'minus vector'; or what is common among has, will, and sings to make them all related to the present moment. Bull's research approach is more logical than linguistic; he starts by constructing a hypothetical tense system and later tries to fit the tenses of various languages into it. Had it been the opposite approach, we would not have had such diagrams as the above for English tenses with so many gaps, i.e. zero forms, in it.

II : Analyses in Terms of

Two Tenses Only

Most modern, or as may sometimes be called 'linguistic', treatments of the subject of tense in English agree that English has TWO tenses only: the past tense and the non-past or present tense. As Jespersen points out this does not mean that English cannot refer to future time; it rather means that English has no one formal grammatical category to refer to futurity (Jespersen, p.294). Consequently, Jespersen, as well as most linguists today, comes to the conclusion that "it must be conceded that English has no real 'future tense'" (Jespersen, p.299). Strang believes that "pure futurity is probably rather rare as a grammatical category and there are historical reasons why we should not expect to find it realized in English" (Strang, p.147). Palmer

justifies his exclusion of a 'future tense' by saying that many verbal forms, other than those with WILL and SHALL, may refer to futurity in English (Palmer, p.63). Besides, "a second difficulty about WILL (though not shall) is that it often does not refer to the future at all" (Palmer, p.63). Historically, the use of both will and shall to refer to future time is a later stage in the development of the English tense system.¹³

For the purposes of this part of the survey of literature, the reviewed works are divided into: (A) Non-transformational works, and (B) Transformational works. The great similarity of the treatment of tense in transformational studies is felt to be a sufficient reason for putting all transformational analyses under one heading.

A : Non-transformational Studies

1. Palmer's 'Past' and 'Present'

In his discussion of 'time and tense', Palmer starts by saying that "the traditional statement of tense in terms of present, past, and future, exemplified by I take, I took, and I shall take, has no place in the analysis presented here" (p.62). Then he goes on to explain that verbal forms are to be classified only in

¹³ S. Robertson and F.G. Cassidy, The Development of Modern English (New York: Prentice-Hall, 1954, 2nd edition), p. 136.

terms of past and present. This category of tense, in addition to three other categories, is used by Palmer to analyse the 'basic' paradigms of full verbs. Each full verb, according to Palmer, has sixteen forms and finite phrases (p.56). These sixteen forms all consist of either the 'simple' finite forms of verbs or of verbal phrases that have BE or HAVE in initial positions. The four categories which Palmer uses to analyse the sixteen 'basic' forms are those of: tense, progressiveness, perfection (aspect), and voice.

Similar to Twaddell's treatment of WILL and SHALL,¹⁴ Palmer does not consider them as tense markers on par with HAVE and BE. He bases his decision on the observation that WILL and SHALL are not the only means of referring to future time nor are they only used for that purpose themselves. Like Twaddell again, he concludes from such observations that "there is clearly an overriding case for handling WILL and SHALL with the other modal auxiliaries... and not together with the past and present distinction of tense..." (Palmer, p.63).

Palmer also suggests that the categories of tense and aspect are intertwined in English since both past/present and perfect/nonperfect distinctions are essentially concerned with time relations (Palmer, p.61). Out

¹⁴W.E. Twaddell, The English Verb Auxiliaries (Providence, R. I. : Brown University Press, 1960), pp. 10-12.

of the combination of tense and aspect in English there result four alternatives: the present non-perfect, the past non-perfect, the present perfect, and the past perfect (Palmer, p.61). The time-reference of these four 'possibilities' is shown diagrammatically as follows (p.61):

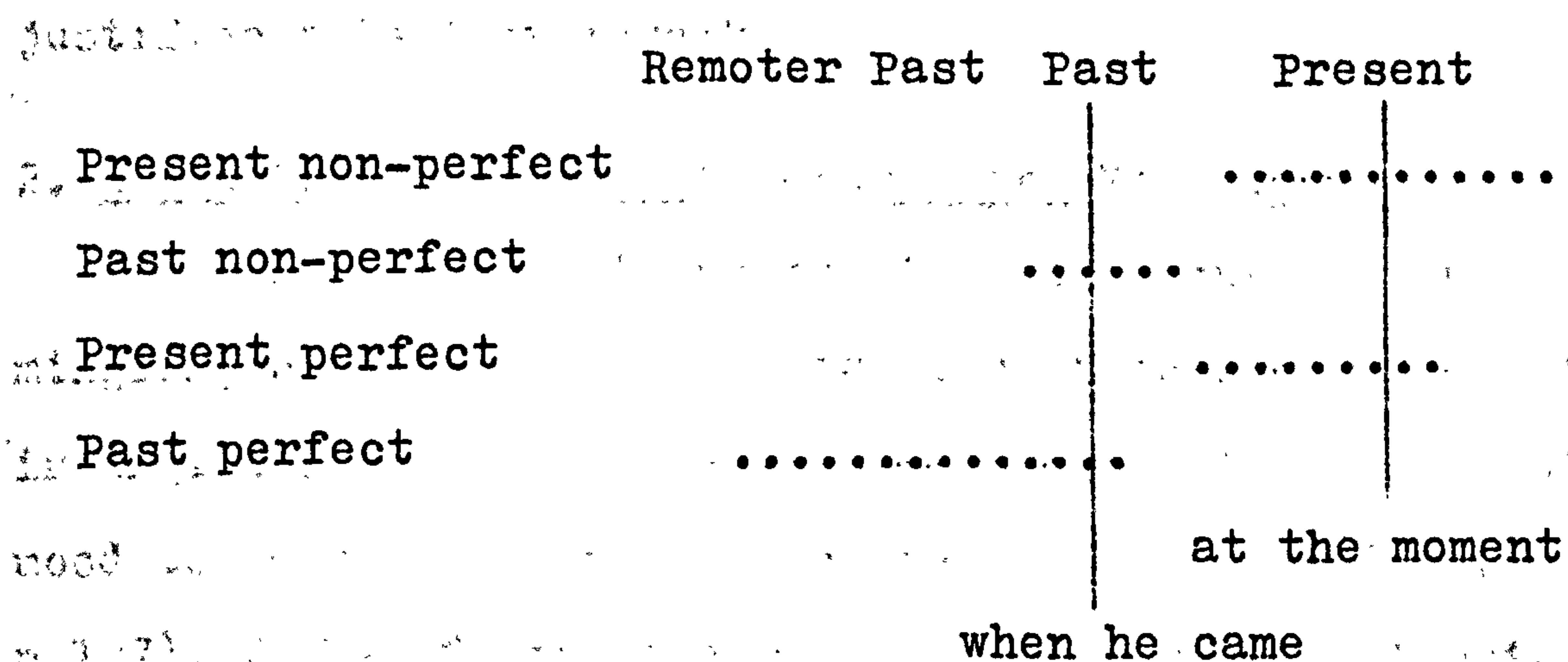


Diagram 7

Palmer's Categories of 'Tense' and 'Aspect' Intertwined

Palmer also states that many of the 'basic' verbal forms have three different uses. First of all, each has its 'basic use'. Then each has two additional functions when it is used to refer to a future or to a habitual activity. He gives the following examples for this (Palmer, p.60):

- | | |
|----------------------------|--------------|
| I'm working at the moment. | ('basic') |
| I'm working tomorrow. | ('future') |
| I'm always working. | ('habitual') |

However, it seems inaccurate to speak of the functions of verb forms in such circumstances since it is the same verb form in all three sentences above. It might therefore be more fitting to speak of the verb-adverb functions rather than of the verb alone.¹⁵ The compulsory occurrence of temporal adverbials in all three sentences justifies this last remark.

2. Strang's 'Past' and 'Non-past' or 'Neutral'

Like Palmer, Strang realizes the constant intermingling between the two categories of tense and aspect in English. In fact, Strang adds the verbal category of mood to form a unitary trio of tense-aspect-mood (Strang, p.127). Verbal forms, according to Strang, are classifiable into 'simple conjugations' and 'complex conjugations', with the former consisting of a single word each whereas the latter comprises more than ^{one} word each (Strang, p.127). Tense, in the simple conjugation, is formally and functionally represented by a binary opposition of a marked past versus a non-marked neutral or non-past (Strang, p.127).

The complex conjugations of verbs, on the other hand, are formally made up of a non-finite member of 'the open-class of verb-forms', i.e. lexical verb forms, plus one or more members of 'the closed system', e.g.

¹⁵ This point is to be elaborated on later in the study.

BE, HAVE, and all modals. Such complex conjugational forms are again analysed by Strang in terms of binary oppositions. She uses the following five oppositions for this purpose (p.141):

1. non-interrogative (affirmative) ~ interrogative;
2. non-negative (positive) ~ negative;
3. non-passive (active) ~ passive;
4. non-durative ~ durative;
5. non-perfective ~ perfective.

Across the whole range of the above binary oppositions, the contrastive members of tense, i.e. non-past ~ past, operate. The binary opposition of modal ~ non-modal may also be applied to all of them. However, Strang adds the proviso that tense and modality cannot occur together (Strang, p.143). Yet, this proviso seems to contradict with Strang's remark on the unity of tense-aspect-mood which is strongly expressed on page 147 of her book, Modern English Structure, when she states that "in English we do not have pure tenses, pure moods, or pure aspects; two or three of these kinds of meaning are always inseparably present in any given verbal form." It is also contradicted when Strang admits in the following statement that many modals do express a time-reference besides their modality: "... it is clearly true that a dominant element in several of the modals and near modals... is that of futurity" (p.147).

3. Allen's 'Re-analysis' of Tense

As has been mentioned earlier in this chapter, Robert L. Allen in his book Controlled English analyses the English tense system in terms of three 'kinds' of time, i.e. 'past', 'present', and 'future'. However, in his later book The Verb System of Present-Day American English, Allen modifies his attitude and re-analyses English tense in terms of two 'kinds' of time only (p.150). On page 152 of Allen's new book, we find these illustrative diagrams:

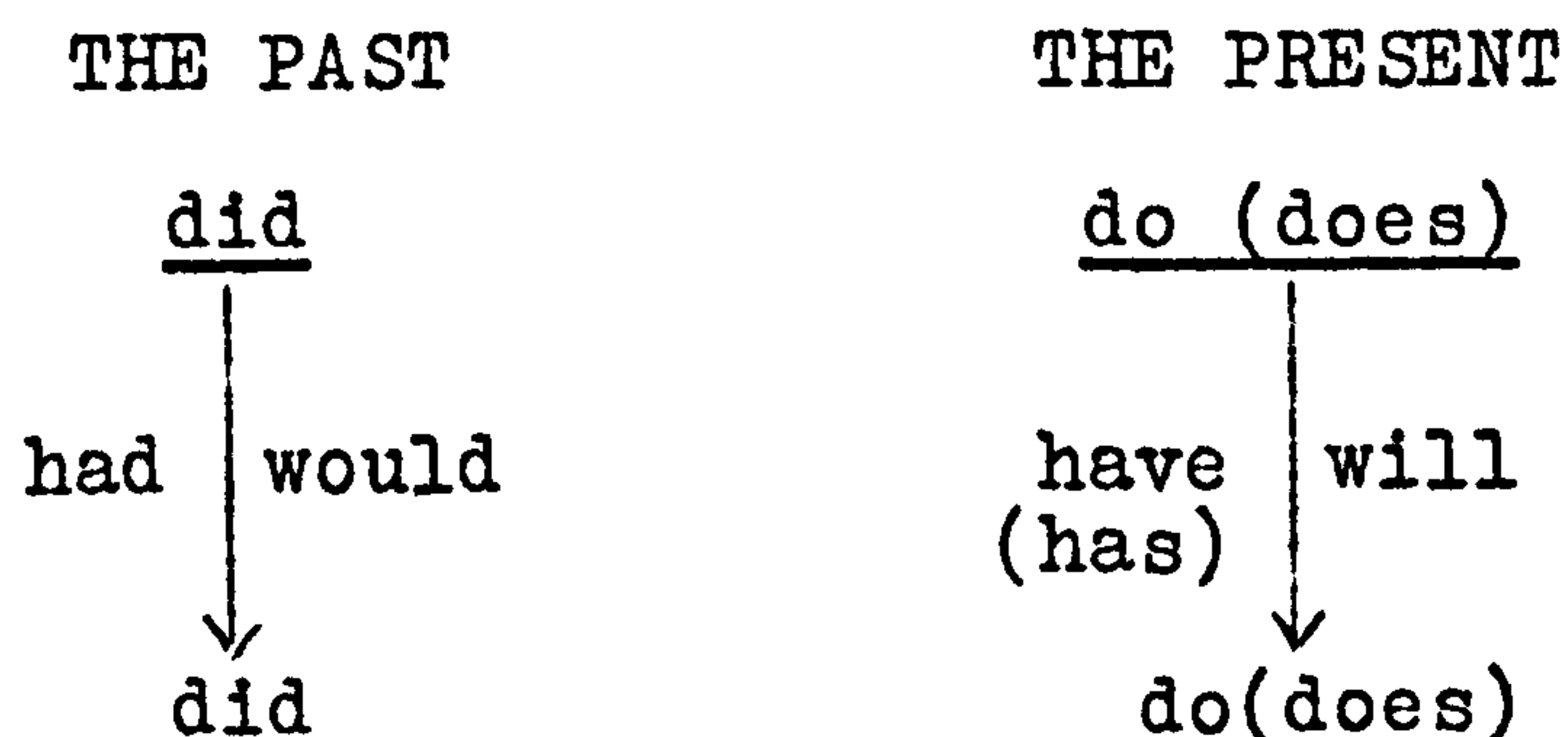


Diagram 8

Allen's 'Kinds' and 'Relationships' of Time

Allen justifies this change of mind by pointing out that the separate diagram for the 'future' tense which appears in his Controlled English, and which is reproduced on page 60 of the present study, does not have any characteristic form except will have and that even this form is too rare to be given much significance (Allen, The Verb..., p.150). Besides, since will may both refer to near and far future, it is used in Allen's

new diagrams merely to refer to 'time later than now'
(The Verb...,p.150).

In the field of 'time-relationships', Allen recognizes the three relationships of 'before', 'after' and 'same'. However, he makes a distinction between 'later' time-relationship and 'anticipated' time-relationship (The Verb,p.170). Formally, this distinction is seen in the past tense when the anticipated time-relationship is usually expressed by verb clusters with would, whereas later time-relationship is indicated by the preterit form of single verbs. In the present tense, the distinction between later and anticipated is seen when a simple-present verb is used to indicate 'later' time whereas will is used for 'anticipated' time. To illustrate this distinction, Allen draws the following figures (The Verb...,p.171). (By the 'moment of coding', Allen refers to the present moment,i.e. NOW.)

AN IDENTIFIED TIME IN THE PAST THE MOMENT OF CODING

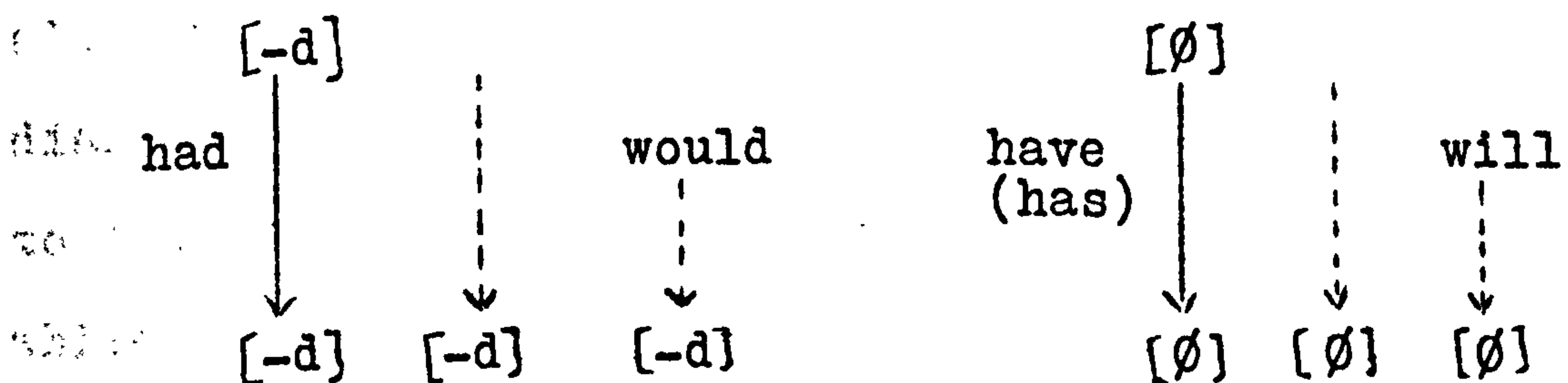


Diagram 9

'Later' vs. 'Anticipated' Time

Allen also gives the following sentences to show that 'later' time is expressed without would (The Verb..., p.170):

1. She sewed a whole dress for Alice before they rowed her across the river.
2. Percy got there before I did.
3. He means to speak before he leaves.

It might be worthwhile to notice that in all the three sentences of Allen just quoted above, the temporal conjunction before is found. Might it/^{not}then be possible that the temporal relationship embedded in before makes it redundant to use would or will? Allen would have been more convincing with sentences that do not have such relational conjunctions.

To account for such verbal forms as will have written and would have written, Allen sets up a special system for 'Anticipated' and 'Future' time which he claims to "form a kind of sub-system within the over-all verb-system " (The Verb, p.176). According to the diagrams of this subsystem shown below, will have is to indicate 'time before an identified future time' while would have represents 'time before the time signalled by would' (p.177):

THE MOMENT
OF CODING

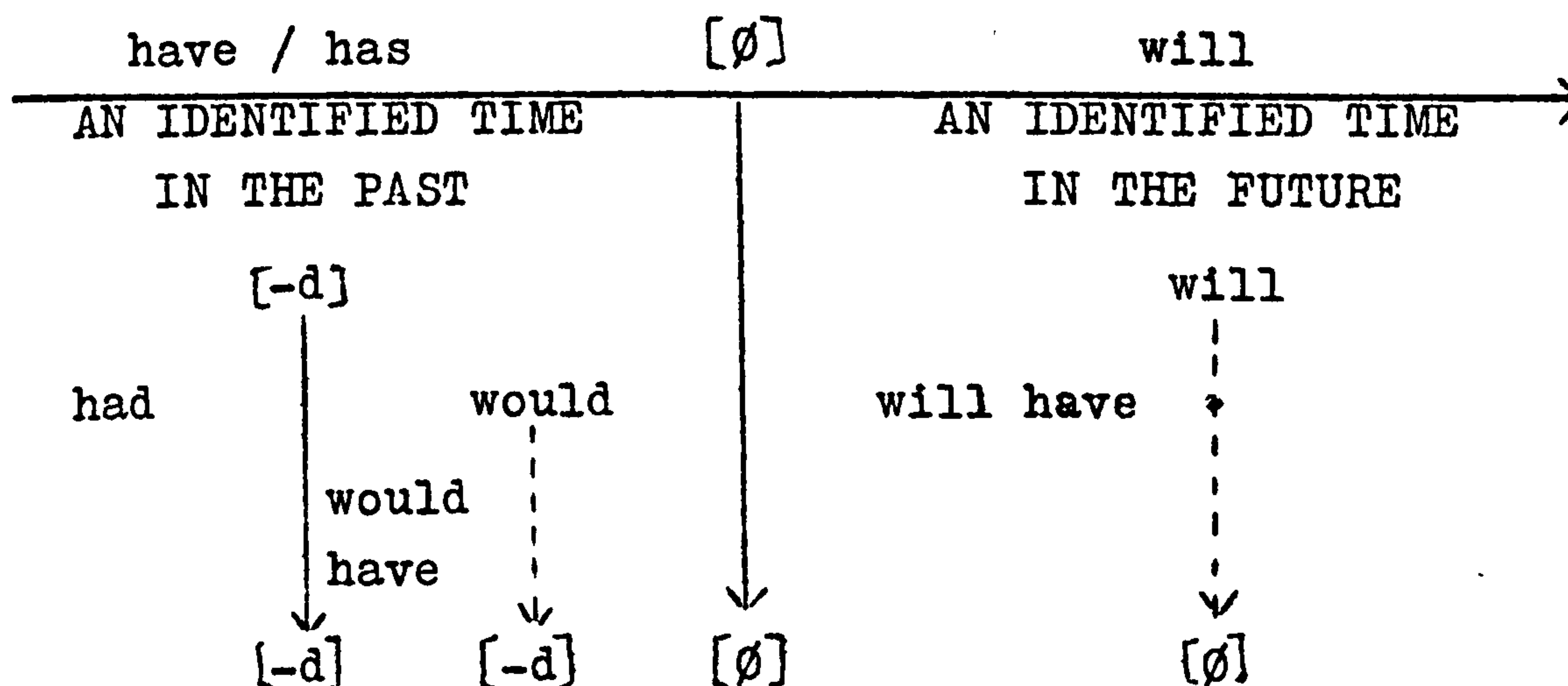


Diagram 10

Allen's Temporal 'Sub-systems'
of 'Anticipation' and 'Futurity'

B : Transformational Studies

The first 'formal' formulation of the transformational theory of grammar appeared in Chomsky's epoch-making book, Syntactic Structures, published in 1957. In this book, Chomsky defines language as "a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements."¹⁶ Then by applying certain rules to the 'finite set of basic elements', a native speaker is able to form an infinite variety of novel sentences. This idea of language based on a system of rules is, however, not new.

¹⁶Noam Chomsky, Syntactic Structures (The Hague: Mouton, 1969, 8th printing), p.13.

Chomsky himself believes that it was expressed by Wilhelm von Humboldt 'more than a century ago.'¹⁷ Nevertheless, the 'explicit' formulation and practical application of transformational theory of grammar is in fact the product of the last few years.

Transformational grammars of the 'Syntactic Structures' variety consist of three levels of components: the 'phrase structure component' which generates strings from their constituent morphemes; the 'transformational component' which generates more complex strings from the underlying simple strings produced by the first component; and the 'morphophonemic component' which comprises rules that specify phonological forms of morphemes. Many linguists are agreed that the setting up of the 'transformational component' with its precise set of rules is Chomsky's main contribution to the theory of grammar (Dixon, p.86).

1. Chomsky's Description of Tense

In the first set of rules in Syntactic Structures, verb forms appear as part of the verb phrase (VP) (p.26):

Sentence \longrightarrow NP + VP

NP \longrightarrow T + N

VP \longrightarrow Verb + NP

¹⁷N. Chomsky, Aspects of the Theory of Syntax (Cambridge, Mass.: The M.I.T. Press, 1969), p.v.

To describe more fully the verb part of the VP mentioned in the rules above, Chomsky adds the following 'phrase structure rules' (p.39):

Verb \longrightarrow Aux + V

V \longrightarrow hit, take, walk, read, etc.

Aux \longrightarrow C (M) (have + en) (be + ing) (be + en)¹⁸

M \longrightarrow will, can, may, shall, must

C \longrightarrow $\left\{ \begin{array}{l} \text{S in the context NP sing-} \\ \emptyset \text{ in the context NP pl-} \\ \text{past} \end{array} \right\}$

In the 'rewriting' of C above the first description of tense appears in the book. However, Chomsky seems inconsistent in talking about past in one case and about \emptyset and S in the other. The former is a temporal concept whereas the latter two are linguistic morphemes which indicate number in English. Chomsky could have analysed C, in the rules above, more consistently in the following way:

C \longrightarrow $\left\{ \begin{array}{l} \text{past} \\ \text{present} \end{array} \right\} + \text{number}$

Then all the representative morphemes of past, present, and number in the formula above can be rewritten by morphophonemic rules. In fact, later in the book, Chomsky

¹⁸Towards the end of his book, Chomsky drops the last constituent in this string, viz. (be + en), where it appears now as part of a Passive transformational rule (see p. 112).

seemsto be in favour of using 'cover-terms' rather than specific morphemes. In this respect, he points out that analysing tense in terms of its representative morphemes 'leads to trouble'. Then he cites the case of such verbs as took /tuk/ in English where, he says, "it is difficult without artificiality to associate any part of this word with the past tense morpheme which appears as /t/ in walked /wɔkt/, as /d/ in framed /freymd/, etc." (Syntactic,p.58). The similarity in temporal reference between two verbs such as took and baked, Chomsky proposes, can best be demonstrated by the appearance of the morpheme past in the morphemic representation of both of them (Syntactic,p.58).

Tense in Chomsky's description always appears initially in the deep structure of verbal phrases.¹⁹ In the surface structure, however, the initial morpheme in verbal phrases can either be the lexical verb itself, a modal, a form of have, or a form of be. In all these cases, tense appears as a marker that directly follows, or is attached to, the initial element in verbal phrases. This, however, is only the case with the 'surface' structure of verbal phrases, as has just been pointed out. In the 'deep' structure of all verbal phrases, tense

¹⁹For an explanation of deep versus surface structures, see (a) Chomsky's Aspects, p.16 and (b) Lyon's Introduction, p.247.

is the initial element itself. This is clear in Chomsky's formulation of the following rules as representative of the deep structures of verbal phrases (Syntactic, p.61):

- (i) NP - C - V ...
- (ii) NP - C + M - ...
- (iii) NP - C + have - ...
- (iv) NP - C + be - ...

It is, however, not clear from the above rules why Chomsky regards C + M, C + have, C + be as one segment each whereas C - V as two.²⁰ The trouble with Chomsky is that he rarely defines the use of his symbols. The above rules show that Chomsky, unlike Twaddell and Palmer before, considers modals as tense-carriers on par with have and be.

After eight years of the publication of Syntactic Structures, Chomsky published his Aspects of the Theory of Syntax in which he put forward a more comprehensive form of the transformational theory of grammar. The theory, as presented in Syntactic Structures, has undergone some major and minor changes in the revision. What matter to us here are any changes that are relevant to the analysis of the verb in general and tense in particular.

²⁰Chomsky uses the plus symbol (+) in the last three rules but the minus symbol (-) in the first to indicate this segmentation. The basis of this segmentation becomes clear however towards the end of Chomsky's book.

On page 42 of his new book, Chomsky points out that tense is 'obligatory' with every verbal phrase and that tense can either be Past or Present.²¹ He also states that a verbal phrase may or may not contain one or more of the optional elements of Modal, Perfect, or Progressive. All this information is in fact basically found in Syntactic Structures, yet Chomsky^{uses}/the terms Perfect and Progressive for the first time here to refer to the elements have + en and be + ing, respectively. Again we notice here the tendency to use 'concepts' rather than actual morphemes. All this is included in Chomsky's new formulation of the rule of the Auxiliary (Aspects, p.43):

Aux \longrightarrow Tense (Modal) (Perfect) (Progressive)

The two elements of Perfect and Progressive are later combined under the term Aspect, as found in rule (xvi) on page 107 of Aspects of the Theory of Syntax:

Aux \longrightarrow Tense (M) (Aspect)

Chomsky also modifies his analysis of the verbal phrase which has appeared in Syntactic Structures.

According to the new analysis, tense (which is part of Aux) is no longer a part of VP but rather an entity by itself. Thus the sentence seems to lose its binary

²¹A verbal phrase in Chomsky's terminology does not necessarily consist of more than one word.

status suggested in Syntactic Structures. This new analysis of the sentence appears in the following diagram:²² (with irrelevant details omitted)

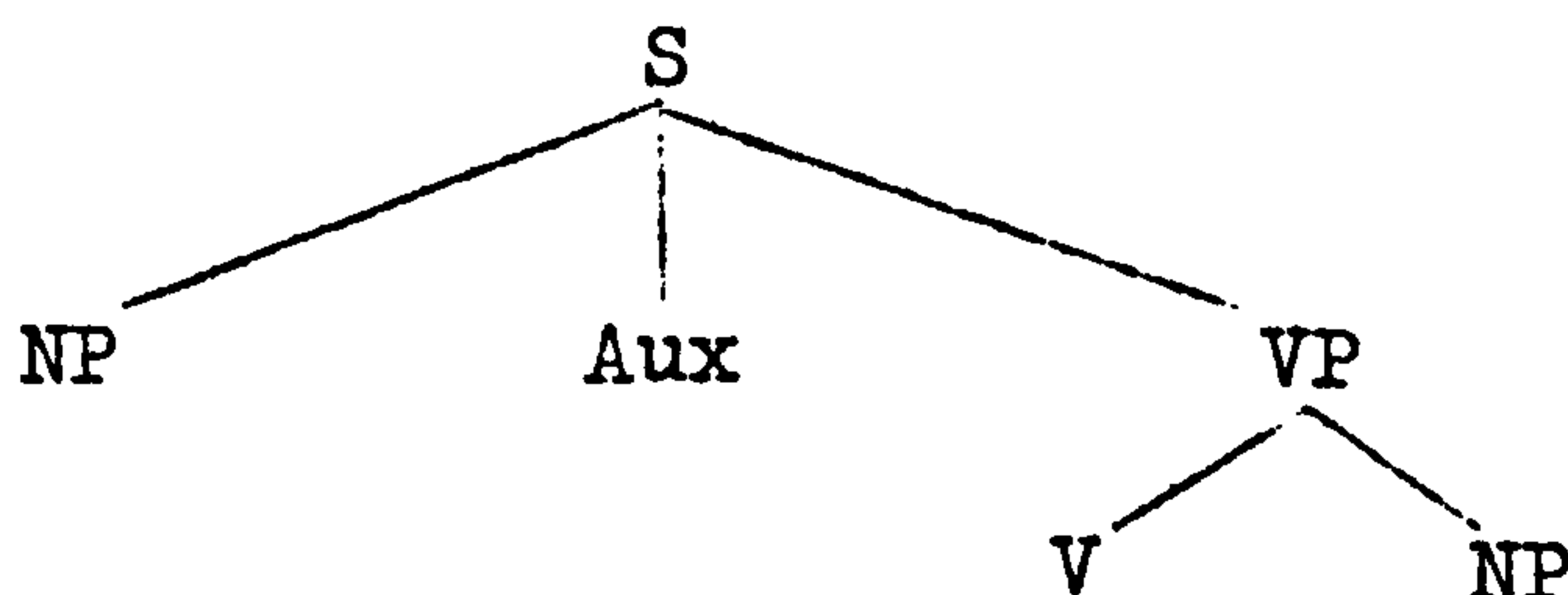


Diagram 11

Chomsky's Analysis of 'Tense' and 'Sentence'

Later in the book, Chomsky returns to the binary analysis of sentences with the new description of VP still retained. He achieves this by using the term Predicate-Phrase to refer to both Aux and VP at the same time. This can be seen in rules (i) and (ii) which appear on page 106 in Aspects of the Theory of Syntax and are shown below:

$S \longrightarrow NP \frown \text{Predicate-Phrase}$

$\text{Predicate-Phrase} \longrightarrow \text{Aux} \frown \text{VP (Place) (Time)}$
books

From both of Chomsky's/reviewed above, it becomes evident that the subject of tense as such is only given a little consideration. The only reference to tense is the use of Past and Present or some of their representative linguistic morphs. No reference at all is made to

²²Chomsky, Aspects, p. 86.

the temporal values of the Modal, Perfect, or Progressive. There is also no reference to the various 'relations' in time as indicated by verbal forms, i.e. 'earlierness', 'laterness' or 'simultaneity'. Thus the treatment of tense in both of Chomsky's works is on the whole rather sketchy and accidental. Indeed, the subject of tense is yet to be described with more care and seriousness in transformational grammars as a whole. Before concluding this discussion of tense in transformational grammars, it might be worthwhile to see how some transformationalists, other than Chomsky, have dealt with the subject.

2. The Analysis of Katz and Postal

Katz and Postal have put forward a semantic and interpretive theory to complete Chomsky's transformational grammar. Their theory is an attempt to analyse the semantic component on the basis of the syntactic component of transformational theory. To explain the semantic component, they have suggested some 'projection rules' based on syntactic and semantic 'readings'. They have also suggested the introduction of dummy symbols in underlying P-markers.²³

As far as tense is concerned, there is however no marked difference from Chomsky's treatment. Katz

²³For full discussion on these and other interesting issues, see J.J. Katz and P.M. Postal, An Integrated Theory of Linguistic Descriptions (Cambridge: Mass.: The M. I. T. Press, 1965, 2nd. printing).

and Postal use the same analysis of tense as that which appears in Syntactic Structures. An example of their analysis is the following diagram which appears on page 82 in their book and which represents the underlying P-marker of the sentence "The man is reading something" (Katz and Postal, p.82).

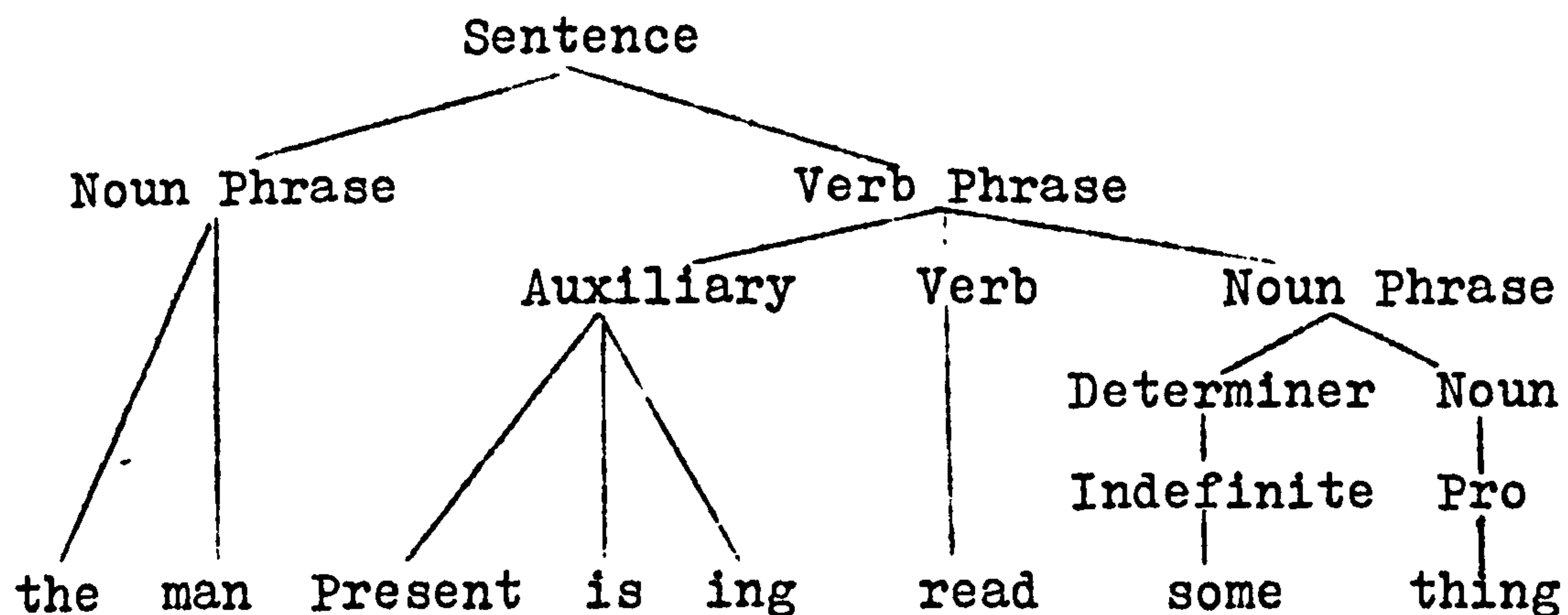


Diagram 12

Katz and Postal's Description of Tense

One would expect a more detailed analysis of tense in a study whose main aim is semantic and interpretive. But it seems that Katz and Postal are in fact more concerned with the syntactic side of their theory than with the semantic one. This reflects a general trend in transformational as well as structural analyses.

3. The Description of Tense by Paul Roberts

Paul Roberts' book, English Syntax, goes into some detail in the analysis of the English verb.²⁴ The

²⁴Paul Roberts, English Syntax (New York: Harcourt, Brace and World, Inc., 1964).

analysis of tense in particular is still, however, far from being satisfactory. Roberts does give us many, though indirect, hints about tense; but again the 'syntactic' nature of the study predominates and prevents it from dealing adequately with the question of tense as the linguistic indication of the semantic segmentation of time.

Following Chomsky, Roberts puts all verbs on one side and verb to be on the other. Unlike Chomsky, however, Roberts puts forward some convincing argument for doing so: "Most of the grammatical rules that apply to verbs do not apply to be; most of those that apply to be do not apply to verbs" (Roberts, p.39). Consequently, he produces the following formula for the verbal phrase (p.39):

$$VP \longrightarrow \left\{ \begin{array}{l} \text{be} + \left\{ \begin{array}{l} \text{substantive} \\ \text{Adv-p} \end{array} \right\} \\ \text{verbal} \end{array} \right\}$$

Concerning tense specifically, Roberts clearly exemplifies the limitation of the term tense in modern linguistic treatments to refer to the 'simple' forms of verbs only, i.e. the preterit and the 'present' forms. Talking about verbal phrases comprising more than one word, Robert says that "modern linguistics, however, does not extend the term tense to these phrasal constructions ... there is a large number of such constructions,

and it is better to treat them separately and reserve the term tense for these expressed in the verb itself" (p.65). Thus verbal phrases with modals, have, or be are not to be called tenses according to Roberts' criterion, since these elements are parts of the auxiliary and not of the verb itself, as can be seen from the following formula on page 68:²⁵

$$VP \longrightarrow Aux + \left\{ \begin{array}{l} be + \left\{ \begin{array}{l} \text{substantive} \\ \text{Adv-p} \end{array} \right\} \\ \text{verbal} \end{array} \right\}$$

or from this one from page 84:

$$Aux \longrightarrow \text{tense} + (M) + (\text{aspect})$$

Roberts analyses tense forms in terms of 'present' and 'past' and adds that "every English kernel sentence must have a verb phrase, and some word in the verb phrase must have a tense form" (p.66). In the underlying P-markers of sentences, Roberts points out that tense is always initial in verb phrases. He explains this by saying that "whatever word comes first in the predicate shows tense. It may be the verb, but it also may not be" (p.67).

Roberts sounds specifically unconvincing and rather arbitrary when he makes the following hairsplitting distinction on page 74 of his English Syntax: "Past

²⁵ This particular attitude has been briefly criticized earlier in the study. However, there will be a full discussion of the point at issue later.

and Present are morphemes, but tense is not." This becomes particularly so as Roberts had already defined tense in terms of 'past' and 'present' on page 70 of the same book:

tense \longrightarrow $\left\{ \begin{array}{l} \text{present} \\ \text{past} \end{array} \right\}$

4. The Analysis of Thomas Owen

Thomas Owen reiterates both Chomsky's and Roberts' attitude that "to be is different from all other verbs in English."²⁶ He also divides all verbs into 'main verbs', MV, and 'auxiliary verbs' (p.31). All main verbs are in turn subdivided into 'intransitive verbs', Vi, 'transitive', Vt, and 'copulative' Vc (p.33).

Owen also classifies tense in terms of present and past (p.55). Like Chomsky, he treats auxiliary verbs as tense-carriers (p.55). Yet, he adds that "the primary function of auxiliary verbs is to indicate a variation in mood, aspect, and voice in the main verb" (p.55). Unlike Roberts, Owen does use the term tense to describe verbal phrases with auxiliary verbs. On page 128 of his book, he has this to say on the point: "... any single English verb (that is, any verb without auxiliaries) must be in one of two tenses: present or past ... To

²⁶Thomas Owen, Transformational Grammar and the Teacher of English (New York: Holt, Rinehart and Winston, Inc., 1965), p. 31.

form all other tenses in English, we must use a combination of auxiliary and main verbs." In fact, Owen gives the number of tenses in English as 'sixteen active tenses'. He then gives the following formula to describe 'all the sixteen active tenses in English' (p.130):

(Tn stands for Tense in the formula)

Tn (Modal) (have + en) (be + ing) MV

5. Koutsoudas's View of Tense

In still another one of the transformational grammars, Andreas Koutsoudas gives almost the same basic treatment of tense found in Chomsky and others. Tense is again analysed by Koutsoudas in terms of past and present.²⁷ In underlying P-markers, it also precedes the main verb and is therefore always initial in verbal phrases. As an example of this, Koutsoudas analyses the sentence "Mary hit the boy" into the following underlying P-marker (p.37):

Mary + Past + hit + the + boy

6. Huddleston's 'Deep' versus 'Surface' Tense

In an article on "Tense and Deixis in English," Rodney Huddleston makes a distinction between a 'binary' tense system of past and non-past versus a 'ternary'

²⁷ Andreas Koutsoudas, Writing Transformational Grammars (New York: McGraw-Hill Book Company, 1966), p. 37.

one of past, present, and future.²⁸ The former system, he says, is a characteristic of surface structure whereas the latter is found in 'deep' tense (p.786). Huddleston also points out that in describing deep tense we "need not be bound to one-to-one correlation between the tenses and their surface realizations, or to restrict tense to those aspects of temporal relations that are marked in the structure of the VGp [verbal group] (p.786). He adds that "tense is associated in deep structure not with anything equivalent to a VGp, but rather with a verb" (p.783). He then asserts that "the difference between auxiliary and full, lexical, verbs is irrelevant at this point" (p.781). Thus Huddleston seems to believe that verbal clusters in English have more than one tense each. This is clearly reflected in his tense analysis of the following sentences (pp.786-87):

1. He intended painting the wall.
2. He continued painting the wall.
3. I'm reading at the moment.

The first sentence above, Huddleston explains, represents the 'future (in past) tense'; the second indicates 'present (in past)'; whereas the third shows 'present in present' (pp.786-87). Thus the same participle painting

²⁸Rodney Huddleston, "Some Observations on Tense and Deixis in English," Language, Vol. 45, No. 4 (1969), p. 786.

is analysed by Huddleston as indicating futurity in sentence one above but presentness in sentence two. It might however be said that futurity is indicated by the temporal semantics of the catenative verb intended in sentence one above rather than by the participle painting. In the third sentence above, the participle reading is also said to indicate presentness. In the same sentence, however, verb to be is also analysed as indicating the present tense. One wonders what is there formally similar between reading and am to make them both have a present-tense reference.

To give equal temporal status for both auxiliary and lexical verbs in verbal clusters, as Huddleston suggests, seems questionable. This is because the 'axis of orientation', without which no tense system can function, is only indicated by auxiliary verbs in verbal clusters in English. The time of actions or states, which are indicated by full verbs in verbal clusters, is only significant in relation to a given 'axis of orientation'. An analysis, like Huddleston's, which gives an equal status to the basic temporal reference of auxiliary verbs and to the relative reference of full verbs in verbal clusters does not seem to account for the temporal structure of verbal clusters in English. A better analysis, it would seem, will be one that regards verbal clusters as one temporal entity each, in

which the initial component indicates the axis of orientation whereas other component(s) represent various temporal locations in relation to that axis of orientation only.

Most interesting in Huddleston's article are his perceptive remarks on the major role of temporal adverbials in the tense system of English. Among the 'main devices' of marking tense, Huddleston rightly points out, are 'temporal specifiers' and 'conjunctions' (p.786). By 'temporal specifiers', he means 'temporal adverbials' and gives as examples now and tomorrow; whereas for conjunctions he gives the temporal conjunctions before and after as examples (p.786). Huddleston also makes some useful remarks on the role of, what he calls, 'the class of the next higher verb' in marking tense in verbal clusters (p.786). By 'the next higher verb', Huddleston refers to the initial component in verbal clusters whether that be an auxiliary, a modal, or a catenative verb. The relevance of Huddleston's remark can be seen from comparing the following two sentences:

1. He will go.

2. He may go.

The futurity embedded in the predictive modal will in sentence one above puts the action go clearly in the

future whereas in the second sentence above no clear-cut future reference is indicated because may does not have such a temporal reference itself.

CHAPTER THREE

A RE-ANALYSIS OF THE ENGLISH TENSE SYSTEM

(A) Introduction

The difference between 'time' and 'tense' has already been suggested in the previous chapters of the study. The former term refers to logical, philosophical, or scientific concepts and divisions; whereas the latter deals with the linguistic representation and classification of some of the former. Time in languages may be formally represented by various kinds of morphemes. In English it can, for example, be referred to by nouns such as 'minute', 'hour', 'year'; by adverbs and adjectives such as 'early', 'late', 'ago'; by conjunctions such as 'before', 'after', 'as soon as'; by verbs such as 'went' vs. 'go'; etc. The use of the term tense consequently has to be further delimited to the indication of 'time' in the verbal system of languages.

In English, for example, actions that took place at a definite point in the past are linguistically represented by verbal forms that carry a certain past-tense marker. In the case of English the past-tense marker is the final /d/ in such verbs as /pulɪd/ pulled, /t/ in /pusht/ pushed, /ɪd/ in /weɪtɪd/ or a vowel change as in /faʊnd/ found from /faɪnd/ find. However, since all these formal markers are the same in indicating

pastness, it is customary in linguistic theory to regard them all as 'allomorphs' of one 'morpheme'. This past-tense morpheme is often symbolized by $\{D_1\}$ in linguistic treatises and will^{as} such be referred to in the present study.

English marks all other verbs that did not take place at a specified point in the past by the absence of the pastness morpheme just mentioned above or, as linguists often find it convenient to say, by the presence of a zero morpheme, $\{\emptyset\}$. Thus the zero morpheme in English comes to indicate non-pastness, which is a more exact term than presentness. Yet it will often be called present in this study as this term is more familiar in the literature for one thing and as the 'present' moment, or the point of utterance now, is temporally the centre of the non-past temporal field.

It is to be recalled that many of the English tense analyses reviewed earlier refer to a 'future tense'. The two forms of will and shall are often given as the representatives of this 'future tense'. The drawback of such analyses, however, is t h a t they are not based on a full consideration of the formal facts of English. They are more based on prior judgments of what tenses English should have rather than on an objective examination of what tenses English really does possess. Both will and shall in such sentences as 'He

'will/shall write' carry the present-tense marker, i.e. the morpheme $\{\emptyset_1\}$. Both forms may also carry the past-tense marker $\{D_1\}$ and thus appear as would and should. Consequently, will and shall are formally marked for time just like any other verb in the present tense. Moreover, futurity in English may also be indicated by various verbal forms other than will and shall, as can be seen from the following examples:¹

He writes tomorrow.

She is writing tomorrow.

They are going to write.

It is important to notice that all the above three verbal forms carry the present-tense marker, $\{\emptyset_1\}$, on their initial elements. This can be seen from the presence of the contrastive past-tense forms of the above, viz. wrote, was writing, and were going to respectively.

It is therefore concluded in the present study that what is often referred to as a 'future tense' is better described as a part of a more comprehensive tense, viz. the non-past or the present tense. This, as has already been pointed out, does not mean that English is unable to express futurity; it certainly can. But

¹It is to be understood that futurity in such sentences is not only indicated by verbal forms. It is rather indicated by these forms in conjunction with the temporal adverbials which explicitly or implicitly refer to the future time. This point will be elaborated on later in the study.

it means that English does not possess a special tense to indicate future time. English indicates futurity, as shown above, by resorting to various other means, all of which make use of the present-tense marker in their verbal forms.

Consequently, it is the point of view of this study that English has two, and only two, tenses. These two tenses are the past tense and the non-past or the present tense. They are formally indicated in the verbal forms of the language by the following tense-markers respectively: $\{D_1\}$ and $\{\emptyset_1\}$.

(B) The 'Tense' and the 'Tenseme'

A verb or a verbal phrase belongs to a certain tense if it is formally marked for that tense. A verb like go in 'They go to school on foot,' is non-past because it carries the present tense-marker, $\{\emptyset_1\}$. But all the verbal phrases in 'He has gone,' 'They will go,' and 'She will have gone by then' also carry the same present tense-marker in their initial elements. Hence, verbs and verbal clusters in the present tense can be of various forms, and no one form can correctly be said to be 'more present' than the others. They all represent alternatives of the present tense and variants of its realization in actual verbal forms. The same conclusion is true of the past tense whose marker $\{D_1\}$ is found in

a variety of verbal clusters in English.

The various verbal forms cited above do not represent a different tense each, but rather all belong to the temporal scope of the present tense which they are members of. To call these variants, respectively, as 'present tense,' 'present perfect tense,' 'future tense,' and 'future perfect tense' would thus be missing the whole point of similarity among these verbal forms and failing to make a useful linguistic generalization in English. What is the alternative then?

The present study introduces the term tenseme to refer to each of the variants of a single tense. The tenseemes of any tense, therefore, are all the verbs and verb phrases that are temporally related by being oriented to the same point of reference. This temporal relatedness is formally indicated by the presence of a given tense-marker in all related tenseemes. Thus in the following sentences all verbs and verbal clusters are past tenseemes according to the above criterion:

He went home last week.

He had gone before I arrived.

He said he would go later.

All the verbal forms given in the sentences above possess the past-tense verbal marker $\{D_1\}$. This formal common characteristic among these verbal forms indicates that they are all 'temporally similar' in that they are all

oriented to a point in the past.

However, the present tenseemes will go and has gone, for example, do not exactly have the same temporal significance. It is true that both are oriented to the present moment; a fact that is formally indicated by the presence of $\{\emptyset_1\}$ in both of them. But it is obvious that the former indicates some 'laterness' in relation to the present moment, now, whereas the latter specifies 'earlierness' in relation to the same temporal point of reference. The past tenseemes would go and had gone are similarly distributed in relation to a specific past point of time which is formally indicated by $\{D_1\}$. In this way we may speak of a 'complementary distribution' among the tenseemes of any tense, i.e. that each tenseme indicates a unique temporal location in relation to the same point of reference in the temporal field covered by that tense.

Tense is therefore defined in the present study as a class of tenseemes that are temporally similar and appear in complementary distribution. Each tense is thus regarded as a field of related temporal relations, a temporal abstraction, that is formally represented in language by its tense-marker which is present in all and every one of its tenseemes. The tenseemes of each tense are the verbs and verbal clusters which represent all the alternative temporal relations within that tense. Tenseemes are thus the exponents of tenses in that any

tense can only be linguistically realized through one of its tenseemes. Any tense may only be detected in its tenseemes and every tenseeme must belong to a certain tense.

(C) Aspect and Aspectual Markers

Tenseemes, it has just been said, appear in complementary distribution by specifying different temporal locations and relationships within any single tense. Linguistically, this is achieved in English by adding special markers, other than tense markers, to verbal forms. These relational markers are here called aspectual markers. They are added to verbal forms already marked for tense. As in the case of tense, aspect in English may better be analysed in terms of contrastive binary oppositions. Consequently, English may be initially said to have the following two contrastive members of aspect: earlier vs. non-earlier.² Earlier aspect is marked by the presence of the morpheme $\{D_2^?\}$ which is added to the verbal base to form what is often called 'the past participle form' or, as Jespersen prefers to call it, 'the second participle form' of that verb. On the other hand, non-earlier aspect is indicated in English by the morphemic symbol $\{\emptyset_2^?\}$, as it is the unmarked

²There is still another contrastive pair of aspect in English. This is discussed and analysed in the next chapter on 'expansion'.

member of the contrastive pair. The non-earlier aspectual marker $\{\emptyset_2\}$ produces the 'infinitive form' when added to the base forms of verbs. It is important to notice in this respect that the non-earlier aspectual marker $\{\emptyset_2\}$ cannot be correctly symbolized as $\{-D_2\}$ / ^{since} simple tenseemes such as writes and wrote also lack $\{D_2\}$ though they do not have any aspectual markers, as it is assumed in this study that no linguistic form can carry more than one temporal marker at a time, whether it is a tense or an aspect marker.

The verbal phrase in 'I have written it' is thus analyzable as consisting of:

A Present-tense Marker $\{\emptyset_1\}$ + an Earlier Aspect
Marker $\{D_2\}$

The tense-marker always appears initially in verbal clusters, and is in the above carried by the tense-carrier have which is made up of HAVE + $\{\emptyset_1\}$. The aspectual marker $\{D_2\}$, on the other hand, is carried by the base of the main verb which has consequently taken the 'past participle' form written in the above example. Written is therefore to be analyzed as:

WRITE + $\{D_2\}$

Aspect always functions within the orbit of a specific tense; it indicates various spots within the time field covered by the tense it is associated with.

Tense markers specify the point of reference: the present moment by $\{\emptyset_1\}$ and a past moment by $\{D_1\}$. Their presence in the various tenseemes of any tense indicates the centre of the whole temporal field covered by that tense. Any specific temporal locations within the whole temporal field are then left to be indicated by aspectual markers. Aspectual markers thus operate as scope-markers for tense. They help to focus on specific spots within the temporal scope of the tense they are associated with.

(D) Kinds of Tenseemes

1. The Simple Tenseemes

The simple tenseemes of any verb in English can only be two in number, viz. the simple-present form and the simple-past or the preterit form, e.g. write and wrote. Both simple tenseemes of some verbs in English may be formally identical. When this is the case, the distinction present vs. past can then be made either contextually or formally. It may be formally indicated by the presence of the third person singular s with the present-tense verb. Contextually the reference to the time of the verb may be made implicitly by common focus with other people or explicitly by the use of specified adverbials of time. Without such distinctive clues, the temporal reference of such tenseemes will be ambiguous. Examples of a verb with identical simple tenseemes are

the following:

He <u>cuts</u> it with a sharp knife.	(Formally identified as present)
They <u>cut</u> it yesterday.	(Contextually identi- fied as past)
You <u>cut</u> it quickly.	(Ambiguous temporal reference)

Simple present and simple past tenseemes are simple in the sense that they contain nothing to indicate 'time' other than the tense marker added to the base of the verb. The verbal base in such tenseemes is modified by nothing but the past- or present-tense marker, whereas in the case of all other tenseemes, one or more markers of aspect are always present.

The absence of aspectual markers in simple tenseemes has, as has been pointed out earlier, led many modern linguists and grammarians to take the untenable attitude of regarding these 'simple' verb forms as the only representatives of the two tenses in English.³ Such an attitude would unjustifiably dismiss verbal clusters from belonging to either tense.

2. Compound Tenseemes

A compound tenseeme is a verbal phrase that has one aspectual marker added to the tense-marker. Examples of compound tenseemes in English are:

³See pages 82 - 83 of the present study for an example of such attitudes.

- 'We have written it' = $\{\emptyset_1\} + \{D_2\}$
 'They ^{may}~~would~~ write soon.' = $\{\emptyset_1\} + \{\emptyset_2\}$
 'She had written earlier.' = $\{D_1\} + \{D_2\}$

3. Complex Tenseemes

Complex tenseemes are those verbal clusters that have at least two aspectual markers besides their tense-marker. Such tenseemes in English are found in sentences like the following:

- 'We ^{may}~~shall~~ have written by then.' = $\{\emptyset_1\} + \{\emptyset_2\} + \{D_2\}$
 'They ^{might}~~would~~ have written sooner.' = $\{D_1\} + \{\emptyset_2\} + \{D_2\}$

(E) Binary Oppositions

in Tenses, Tenseemes, and Aspects

The temporal distribution of tenses, tenseemes, and aspects is, as has already been suggested earlier, perhaps best analysed in terms of pairs of binary oppositions in which one member is 'marked' whereas the other is 'unmarked'. The function of the temporal marker in the marked member of each pair is to indicate the presence of the specific temporal value it stands for. The unmarked member in a pair, however, does not usually indicate the absence of that temporal value but rather it says nothing about it. In other words, the distinctive opposition is 'neutralized' in the case of the unmarked member. This is why the unmarked member of a given pair may be spoken of as the 'neutral' member of that pair.

Nevertheless, it happens in special cases that the unmarked member is specifically used to refer to the absence of the temporal value in question. Such cases however are not as common as those which demonstrate the neutral function of unmarked forms.⁴

The two English tenses, for example, form such a contrastive pair. The past tense is the marked member of the pair. Its marker is $\{D_1\}$ which is specifically used to indicate an action or state that took place at a specific point of time in the past. The present tense, on the other hand, represents the unmarked member of the pair. The temporal distinction pastness vs presentness is often 'neutralized' in the case of the unmarked 'present' tense. Thus it is usually the case that forms of the present tense are used to refer to past, present, and future unless they are specifically marked to indicate a specific non-past temporal reference. This explains why present-tense forms, especially simple-present tenses, are thought of/^{as}to refer to 'all time' , or are sometimes spoken of as 'timeless'. The following diagram represents this binarity in the English tense system as well as the 'inclusiveness' of the present tense :

⁴For a detailed discussion of the theory and application of the principle of binary oppositions, see Joseph Vachek, The Linguistic School of Prague (Bloomington: Indiana University Press, 1966).

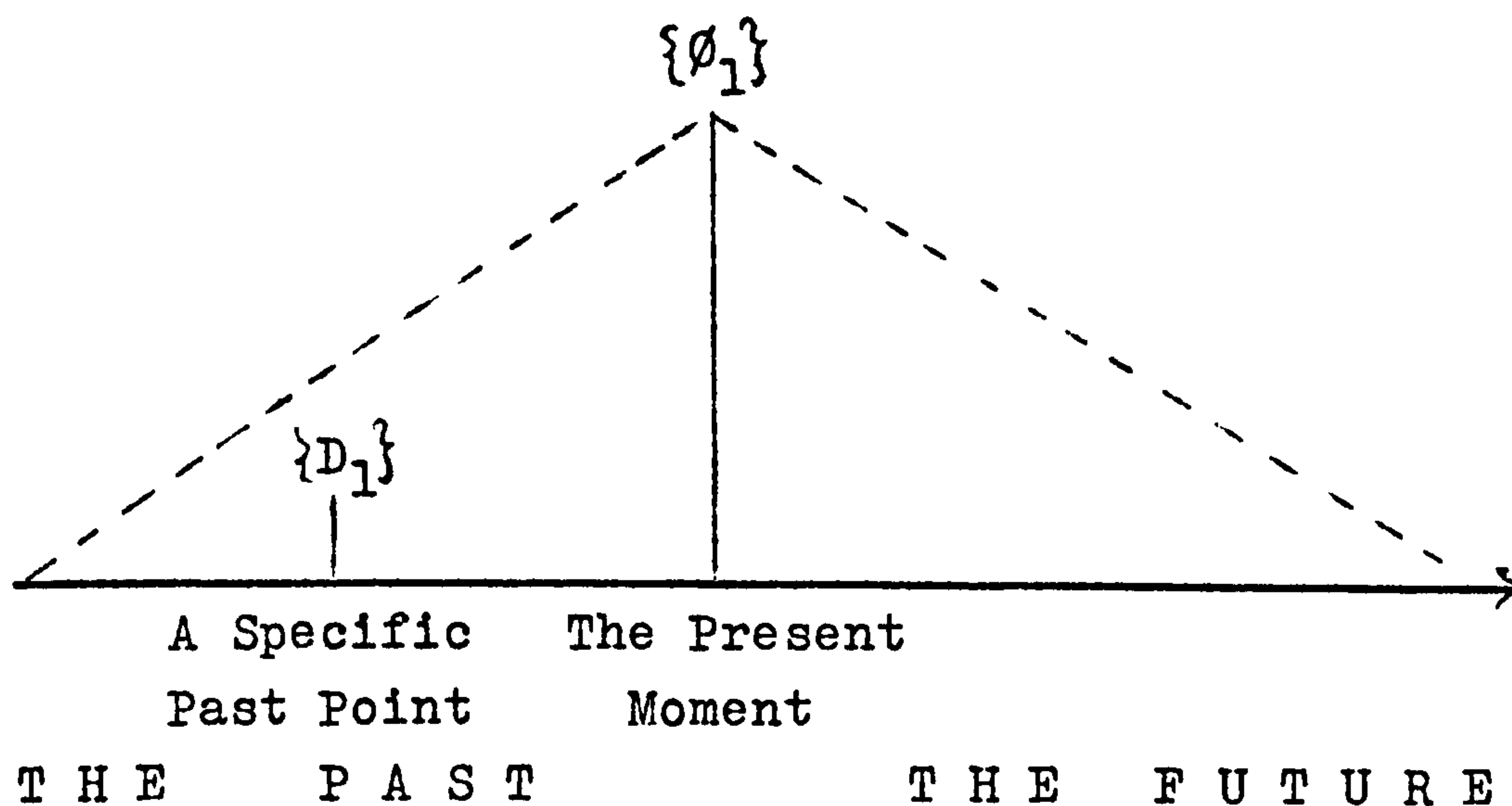


Diagram 13

The Inclusive Temporal Triangular

The above diagram shows that while verbal forms with $\{ D_1 \}$ are all related to a specific point in the past, forms with $\{ \emptyset_1 \}$ may refer to 'all time' and are all related to the present moment. The infinite time represented by the arrow above is all covered by the temporal triangular whose centre is the present moment and whose ends extend infinitely on both sides of the present moment so as to refer to past as well as to future time.

The above diagram also reveals why simple-present tenseemes are used in many linguistic situations in English. The basic temporal location of a simple-present tenseeme is to refer to simultaneous present, as may be seen from the time line above. This is so because later present and earlier present are linguistically indicated

by the later-present tenseme, e.g. will write, and the earlier-present tenseme, e.g. have written, respectively. Yet, as the unmarked member of the three present-tense tenseemes, the simple-present tenseme can also cover the temporal scope of both earlier and later than the present moment.

The present-time field thus temporally and linguistically starts from the simultaneous present moment, i.e. now, and extends on both sides infinitely. Allen has well represented this fact in a diagram which appears on page 183 of his book on The Verb System of Present-Day American English. His diagram appears underneath with slight modifications:

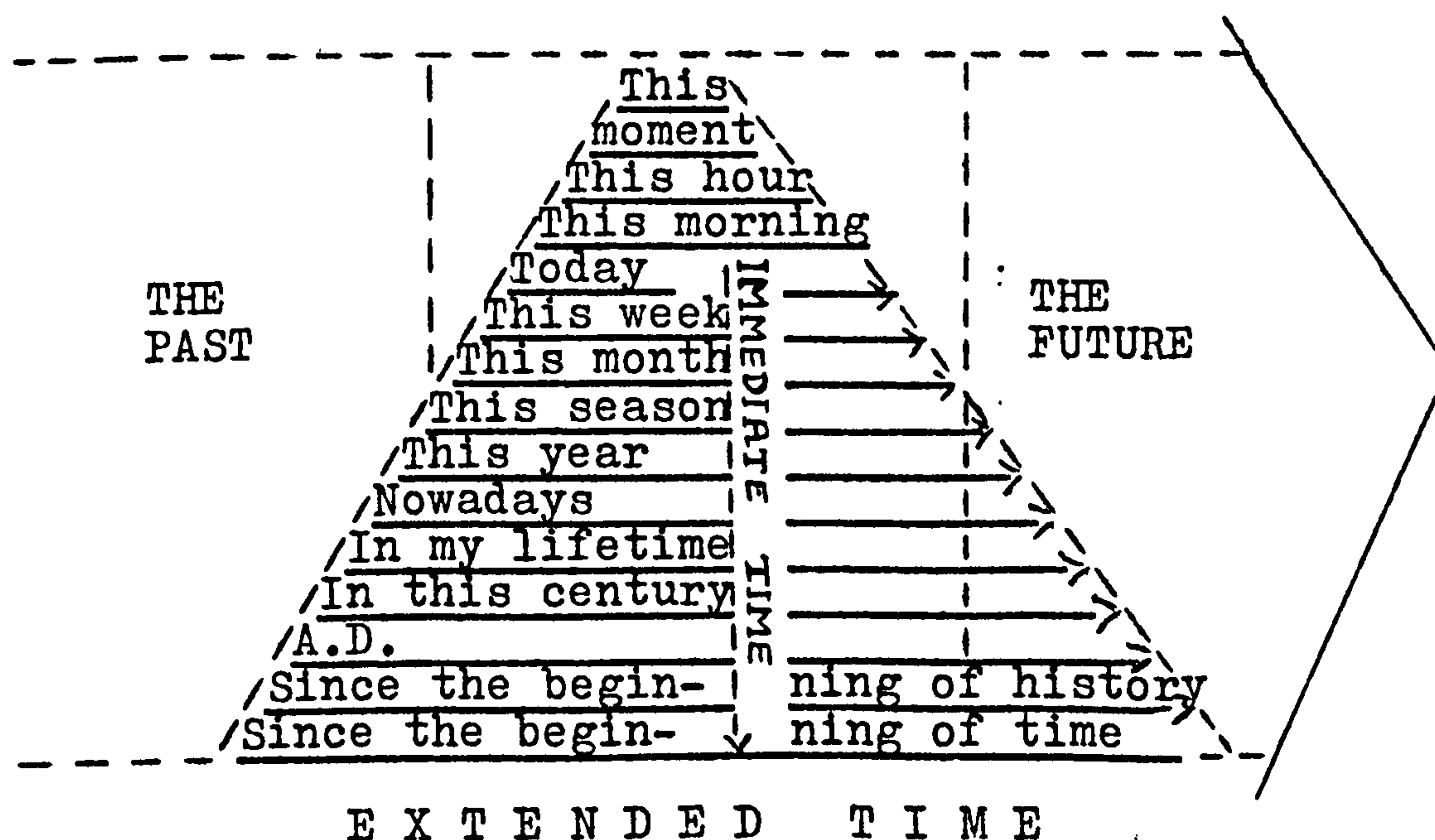


Figure 14

The Present Time Field

'Immediate' and 'Extended' Present

As has already been mentioned, aspectual markers co-occur ^{with} / ~~the~~ tense markers to form various compound and complex tenseemes. The aspectual marker $\{D_2\}$, for example, has already been said to indicate 'earlierness' in relation to the point of reference in either tense in English. It is to be remembered that the point of reference in the case of the past tense is a specific point in the past while it is the present moment in the case of the present tense. On the other hand, the aspectual marker $\{\emptyset_2\}$ is used in English to indicate 'neutrality' or 'non-earlierness' in relation to either point of reference in the tense system. Thus earlier aspect is the marked member of the contrastive pair in aspect, viz. earlier vs. non-earlier, which is formally represented by $\{D_2\}$ for 'earlierness' and by $\{\emptyset_2\}$ for non-earlierness.⁵

The non-earlier aspect may, however, be used in English to indicate lateness or posteriority specifically in relation to a point of reference. In this special case, $\{\emptyset_2\}$ may be said to become $\{\emptyset_2+\}$ to show this additional specialization in relational temporal reference symbolically. Formally, the later-aspectual marker $\{\emptyset_2+\}$ is indicated by either of the modals will or shall plus $\{\emptyset_2\}$. Thus the verbal cluster will write, for example, can be symbolically represented for time as;

⁵For the reasons of choosing the symbol $\{\emptyset_2\}$ rather than $\{-D_2\}$, see page 97.

$$\{\emptyset_1\} + \{\emptyset_2+\}$$

whereas a verbal cluster like can write is represented as the following:

$$\{\emptyset_1\} + \{\emptyset_2\}$$

It can also be seen that there is a mutual co-existence between modals and the non-earlier aspectual morpheme $\{\emptyset_2\}$. The presence of the latter in a linguistic environment usually requires the co-occurrence of one of the modals. But some modals, due to their inherent temporal reference to futurity, help to specify the temporal reference of $\{\emptyset_2\}$ and make it a positive reference instead of its normal aspectual neutrality or ambivalence.⁶ The distinction between $\{\emptyset_2\}$ and $\{\emptyset_2+\}$, therefore is based on a two-fold criterion: it is first determined by the formal presence of will or shall with $\{\emptyset_2+\}$ and second, and perhaps more important, it is based on the temporal value embedded in the two modal forms will and shall.

From the above discussion on aspect in English, it becomes clear that a verbal cluster like has written indicates a time earlier than the present moment by adding the earlier aspectual marker $\{D_2\}$ to the present-tense marker $\{\emptyset_1\}$. On the other hand, a verbal cluster

⁶On page 11 of The English Verb Auxiliaries (Providence, Rhode Island: Brown University Press, 1960), W.F. Twaddell says that both will and shall indicate prediction, and that will in particular has an inherent futurity attached to it.

like will write refers to a time later than the present moment, i.e. to a future time, since it consists of the present-tense marker $\{\emptyset_1\}$ plus the later aspectual marker $\{\emptyset_2+\}$, which is a product of the futurity of will plus the non-earlier aspectual marker $\{\emptyset_2^?\}$.

The temporal distribution of the three main tense-emes of either tense in English is thus as follows:⁷

1. Basic Tenseme

Formal Structure : tense marker

Temporal Reference : time 'same' as the point of reference indicated by the tense marker (or, as the unmarked member of the three tenseemes, it may refer to the whole temporal field of that tense)

2. Earlier Tenseme

Formal Structure : tense marker + $\{D_2\}$

Temporal Reference : time 'earlier' than the point of reference indicated by the preceding tense marker.

3. Later Tenseme

Formal Structure : tense marker + $\{\emptyset_2+\}$

⁷These tenseemes in either tense are main in the sense that each is unique in indicating a specific temporal order, whereas all other tenseemes are the product of different combinations among these three main ones.

Temporal Reference : time 'later' than the point
of reference indicated by the
preceding tense marker.

Formally, the three main tenseemes of the two English
tenses can be found in the following sentences, with
their suggested new names, taking verb to write as an
example:

1. Present Tense

- | | | |
|--|---|-------------------|
| (a) He <u>writes</u> there all the time. | } | = Basic Present |
| (b) He <u>writes</u> now. | | |
| (c) He <u>has written</u> . | | = Earlier Present |
| (d) He <u>will write</u> . | | = Later Present |

2. Past Tense

- | | | |
|--|---|----------------|
| (a) He always <u>wrote</u> there. | } | = Basic Past |
| (b) He <u>wrote</u> it yesterday. | | |
| (c) He <u>had written</u> before we met. | | = Earlier Past |
| (d) He said he <u>would write</u> . | | = Later Past |

The above distribution of tense and aspectual
markers in time may be represented in the following
diagram for English :

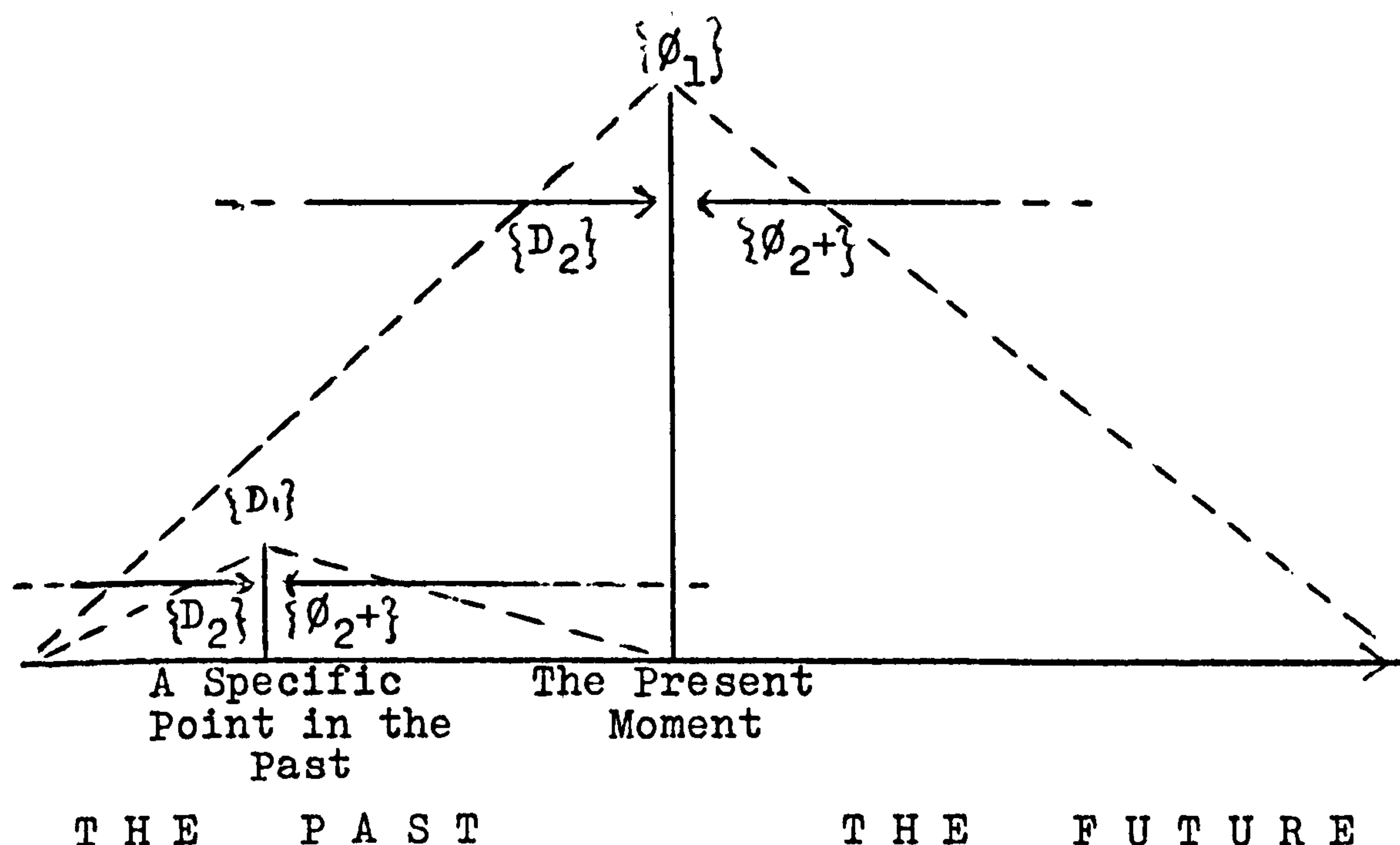


Diagram 15

The Temporal Distribution
of Tense and Aspect Markers

It might be argued that both writes and wrote in the first two sentences of each group of sentences above may be aspectually analyzed as :

WRITE + $\{-D_2\}$ + $\{-\emptyset_2\}$
with the claim

This would be in line/put by some grammarians that there is no verb in English which is aspectually empty.⁸ But the above claim, it seems, is not based on formal criteria. Both $\{-D_2\}$ and $\{-\emptyset_2\}$ are formally inert and hence insignificant. It is the point of view held in this study

⁸Representative statements of such an attitude are expressed by B.M.H. Strang on pages 127 and 147 of her book Modern English Structure (London: Edward Arnold Ltd., 1962).

that every semantic entity has to be formally indentifiable in language in order to be both significant and analyzable. The absence of a marker cannot be regarded significant when it is grammatically ineffective. Thus it seems hardly justifiable to include $\{-D_2\}$ in the description of the simple tenseemes in English. The absence of the past-tense marker, on the other hand, is different. It is linguistically operative in that, for example, its absence is a prerequisite for the appearance of the s of the third person singular. It also is operative in that it keeps the grammatical 'finitude' of the verb. Consequently, it is better to indicate the present-tense marker by the positive marker $\{\emptyset_1\}$ rather than by the negative symbol $\{-D_1\}$. In fact, the main difference between the two occurrences of go in the following sentence is the presence of $\{\emptyset_1\}$ in the first occurrence and its absence in the second one:

'They usually go by train; but sometimes they do go by bus.'

The first go above is finite whereas the second is not. This finitude becomes clearer if we change the subject from they to he. The presence of $\{\emptyset_1\}$ in the first occurrence with the resulting finitude will enable the first go to be formally distinguished from the second by the s of the third person singular:

'He usually goes there by train; but sometimes he does go by bus.'

The later aspectual morpheme, $\{\emptyset_2+\}$, is also significant in that it forms the 'infinitive' of any verbal base it is added to and it also requires the presence of will or shall. It is therefore comparable to the earlier aspectual marker, $\{D_2\}$, which forms the 'past participle' form of verbal bases it is attached to.

We can thus far conclude that, as far as positive temporal reference is concerned, English has two tenses and two aspects. The two tenses are the past tense and the present tense which are linguistically indicated by their markers $\{D_1\}$ and $\{\emptyset_1\}$, respectively. The two aspects are the earlier aspect and the later aspect. These are formally indicated by $\{D_2\}$ and $\{\emptyset_2+\}$, respectively.

The aspectual temporal relations of 'earlierness' and 'laterness' are, however, analyzed by Allen and some other linguists as formally indicated by have and will respectively rather than by $\{D_2\}$ and $\{\emptyset_2+\}$ (Allen, The Verb System, p.148). Allen claims that the occurrence of $\{D_2\}$ after have is obligatory since the use of the past participle form of the verb is predictable, and that after will the use of $\{\emptyset_2+\}$ is also obligatory in the predictable infinitive form. Then he cites the linguistic axiom that whatever is predictable is insignificant

and concludes that the past participle and the infinitive are temporally insignificant in English. He also argues that stressed have in such sentences as 'I have' clearly shows reference to an earlier time without the presence of a following past participle. Allen, however, seems to forget another basic axiom in linguistic analysis which stresses that linguists and grammarians are not to base their analyses on 'fractions' of sentences or on semi-sentences.⁹ A sentence like Allen's 'I have' cannot start a conversation, i.e. cannot occur initially in a conversation because it is formally and semantically dependent on a previous utterance. Thus to claim that have in the above-mentioned sentence indicates 'earlier-ness' on its own is erroneous. Moreover, the principle of predictability on which Allen bases his above conclusion may in fact better be viewed in the opposite direction. It is have that is predictable rather than the 'past participle' since all past participles in English are to be preceded by have.¹⁰ In the sentence

⁹This axiom is mentioned by Allen himself on page 232 of The Verb System ... On page 109 of the same book, Allen defines a 'semi-sentence' as "a minor sentence like 'I will - or like 'Be ready'- which forms, roughly, half of a full sentence."

¹⁰It will be shown later that even verbids are basically verbexes whose initial tense-carrying elements have been deleted transformationally. Besides, in sentences like 'He is gone', it is to be remembered here that gone is a past participle used adjectivally. Hence it is not verbal and is thus no exception to the above statement either.

'Ever eaten a whole water-melon?', which is quoted by Allen, he admits that the form eaten signals 'earlier time-relationship' (The Verb System, p.236). This is despite his above-mentioned statement that 'earlier time-relationship' is signalled by have and not by the past participle. Thus we see that Allen's system of time-relations which is based on have and will does not always work.

(F) 'Orientation' in Time

It can be seen from Diagram 15 on page 108 that English has two points of reference: the present moment and a point in the past. Every finite ^{verb} /in English has to be formally and temporally oriented to one of these two points of reference and consequently has to carry its respective marker, $\{D_1\}$ in the case of the past and $\{\emptyset_1\}$ in the case of the present.

The same diagram also shows that on the left side of the present moment axis, i.e. the past-time field, there are forms with $\{D_2\}$ that are oriented to the present moment as well as forms with $\{D_1\}$ that are oriented to a moment in the past. This means that pastness in English may be indicated both by forms like have written as well as by forms like wrote. The difference between these two past forms, however, can also be deduced from the above-mentioned diagram. The former is oriented to

the present moment; whereas the latter is oriented to a point in the past. This explains why such verbal forms as have written are said to indicate 'current relevance' (Twaddell, p.6). Verbal forms with $\{D_1\}$, like wrote for example, often co-occur with temporal adverbs that refer to specific past points whereas those forms with $\{\emptyset_1\} + \{D_2\}$ do not. Compare:

'I wrote the letter last night' but,

'I have written the letter recently', or just

'I have written the letter.'

Diagram 15 does^{not}/show verbal clusters like will have written and would have written which seem to be oriented neither to the present moment nor to a moment in the past,^{only} in the case of will have written, the orientation is in terms of two points of reference: the 'writing' is to take place later than the present moment but earlier than a point in the future. Laterness is indicated by $\{\emptyset_2+\}$ in will have and earlierness by $\{D_2\}$ in written. The two points of reference, however, are formally identical in English. English has no special tense marker to indicate futurity. Therefore, orientation is signalled by $\{\emptyset_1\}$ which is used in English both to refer to the non-past, i.e. the present, as well as to the future.

In the case of would have written, the situation is similar. The markers $\{\emptyset_2+\}$ in would have and $\{D_2\}$

in written indicate 'laterness' and 'earlierness', respectively. English again has identical formal markers for a past point of time and a future-in-the-past point of time. Both are indicated by $\{D_1\}$. In would have written, the 'writing' is simultaneously oriented to a point in the past and to a point in the 'future-in-past'. Though it may seem somewhat far-fetched, the presence of two points of reference in such cases is not difficult to imagine since it is only contradictory for the same action to occur simultaneously 'later' and 'earlier' in relation to the same point of reference.

The above discussion on verbal clusters like will have written and would have written can be diagrammed in the following figures:

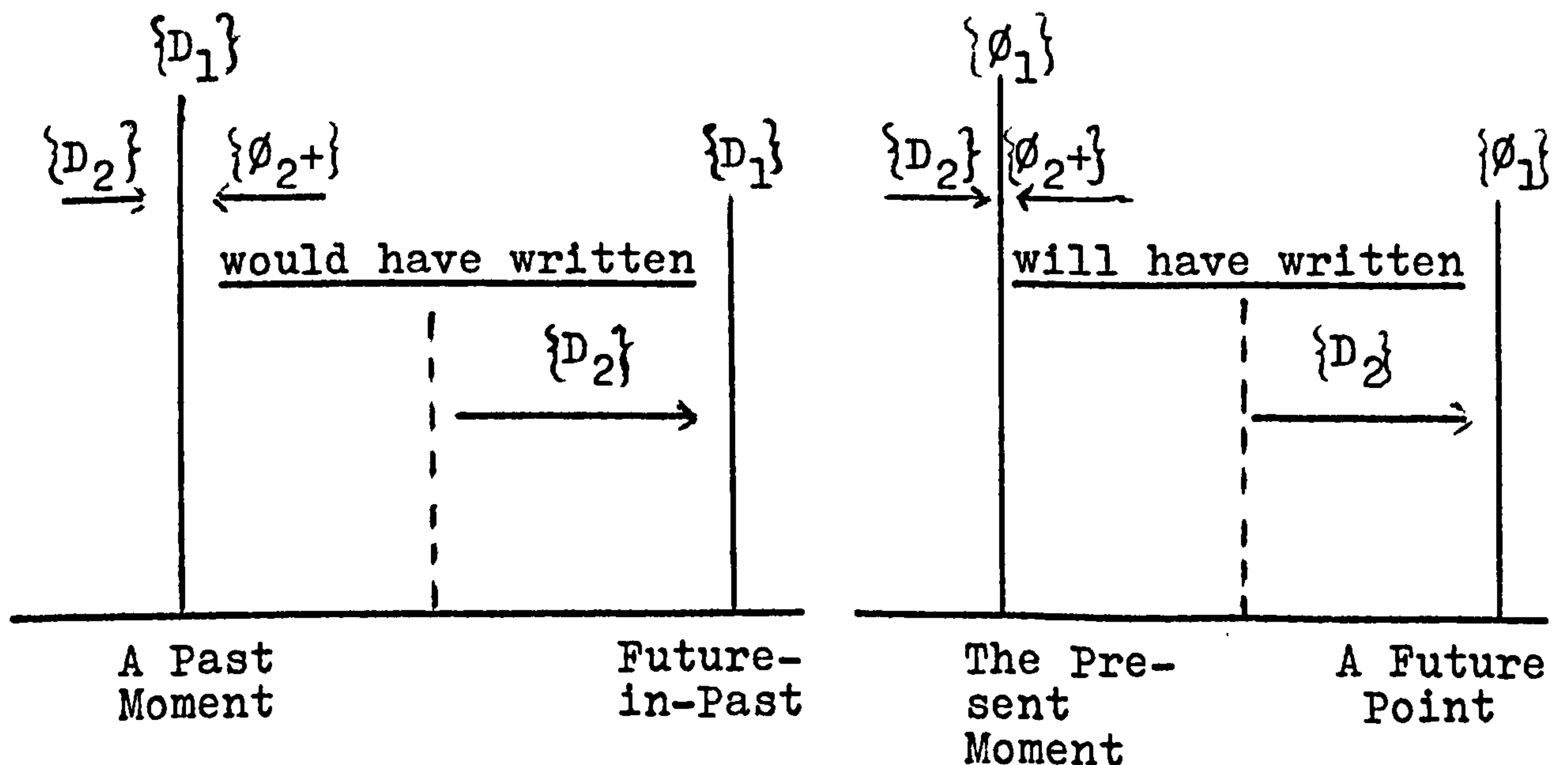


Diagram 16

Simultaneous Double Orientation

(The black lines represent points of reference; the dotted lines indicate the temporal relationships of will have written and would have written in relation to the two points of reference.)

Verbal forms in English are usually oriented to one point of reference at a time. Orientation to two points of reference simultaneously is rare in English. This can be seen from the rarity of such verbal phrases like will have written and would have written. In a corpus of 4800 verb- and verbid-clusters, Allen reports only 19 cases of such tenseemes as would have written and none at all of tenseemes like will have written.¹¹ Besides, in a corpus of 5201 tenseemes, the present writer has found 53 occurrences of clusters like will have written and only one occurrence of those like would have written. William Bull also points out that simultaneous orientation to two points of reference is rare in Spanish as well as in many other languages unrelated to the Indo-European family of languages (Bull, p.94).

(G) The Modals as Tense Carriers

Modals in English form a closed set of verbal forms, i.e. a group of linguistic forms whose members are limited in number. Modals are such verbs as will, shall, can, may, dare, need, must, have to, etc... that always occur initially in verbal clusters.¹² As the present study is basically concerned with tense and

¹¹ See Allen, op. cit., table I, pp. 130-131.

¹² A list of modals and their purely modal functions may be found in Palmer's A Linguistic Study of the English Verb, pp. 128-129 as well as in Strang's Modern English Structure, p. 144.

temporality, modals are consequently only discussed as far as their temporal significance is concerned.

It has already been pointed out that tense markers always occur initially in verbal clusters. It has also just been said above that modals only appear initially in verbal clusters whenever they occur. It can only be concluded therefore that modals function as carriers of tense-markers in English. This justifies the inclusion of a discussion on modals in a study which is primarily concerned with temporality and tense in language.

The modals in general are idiosyncratic in their formal indication of time. Only four of the English modals can formally be said to have normal present vs. past forms. These modals are will, shall, can, and may with their corresponding past forms would, should, could, and might. The following is an example on the use of one of these modals to refer to past vs. present:

'Last week I thought I would do it but now I don't think I will.'

The formal distinction of present vs. past is, however, as much used in these modals to refer to things other than time as it is used for time reference itself. Perhaps the former type of reference is even more frequent. Could, would, should, and might are commonly used in the past form to express 'tentativeness', as in the

following sentences:

I feel I could do it now.

He might arrive tomorrow.

You should do it immediately.

I would have some coffee now.

Other modal forms like must, ought, and need (in its modal use) do not have normal past forms.¹³ English has no formal linguistic representation of 'must + {D₁}', for example. Consequently, to refer to past time, the earlier aspectual marker {D₂} is added to these forms instead. This alternative is theoretically justifiable as both temporal marker {D₁} and {D₂}/^{can} essentially refer to a time earlier than the present moment of speech.

Modals in English are always followed by the infinitive form of verbs. In accordance with the assumption of this study that every verbal form must carry one, and only one, temporal marker, infinitives have been analyzed earlier in the study as each consisting of the base of the verb plus the non-earlier aspectual marker {Ø₂}. Thus must write, for example, can be analyzed into: must + {Ø₁} + write + {Ø₂}. This analysis shows that must write has the present tense of must and the non-earlier aspect of write. To make must write refer

¹³By 'normal' past forms are meant forms that consist of the corresponding present forms plus the past morpheme {D₁}.

to the past time, it has already been said that we add the earlier aspectual marker $\{D_2\}$ since $\{D_1\}$ is formally unrealizable with such modal forms as the above. In English it is also important to notice that the last temporal marker is carried by the last element, i.e. the base, in any verbal cluster. Thus $\{D_2\}$ must be carried/ ^{by} write in the above verbal cluster, viz. must write, to make it refer to pastness. Formally, $\{D_2\} + \text{write}$ make the 'past participle form' of write. It is also predictable in English that every past participle form of a verb is preceded by a form of have. Because have is completely predictable in English, it has no temporal significance in itself, unlike will. Thus have can only assume the grammatical function of a carrier. The process of adding $\{D_2\}$ to 'must + $\{\emptyset_1\}$ + write + $\{\emptyset_2\}$ ' can be symbolically shown as:

$$\text{must} + \{\emptyset_1\} + \{\emptyset_2\} + \text{write} + \{D_2\}$$

Then the predictable have is introduced into the above formula to function as a carrier for the 'floating' marker $\{\emptyset_2\}$ which has been driven forward by the addition of the new marker $\{D_2\}$. This will give:

$$\text{must} + \{\emptyset_1\} + \text{have} + \{\emptyset_2\} + \text{write} + \{D_2\}$$

The formula which is just mentioned above is formally represented in English by the verbal cluster: must have written. Thus to refer to a past time with modals which

do not have 'normal' past-tense forms, we use such verbal clusters as in the following sentences:

He must have written it yesterday.

They ought to have arrived an hour ago.

She needn't have gone last week.

It has already been pointed out that the morpheme $\{D_2\}$ has the reference to a time 'earlier' than a given point of reference. Therefore, when $\{D_2\}$ is added to the present-tense marker $\{\emptyset_1\}$, it comes to refer specifically to earlier present. Thus both the past-tense morpheme $\{D_1\}$, on the one hand, and the combination of $\{\emptyset_1\} + \{D_2\}$, on the other, can refer to a past time. Yet it has also been pointed out earlier that $\{D_1\}$ represents a reference to a 'definite' point in the past whereas the combination $\{\emptyset_1\} + \{D_2\}$ refers to an 'indefinite' point in the past. When it comes to those modals that lack past-tense forms with $\{D_1\}$, however, it must be realized^{that} this distinction between two varieties of past reference is obliterated since both 'definite' and 'indefinite' kinds of past time are now referred to by the use of ' $\{\emptyset_1\} + \{D_2\}$ '. The contrast between 'definite' vs. 'indefinite' past times can thus be said to be neutralized in the case of such modals. This neutralization may be seen from the following examples:

He must have written it yesterday.

He must have already written it.

Without the presence of such modals as must above, the former sentence would have called for a verbal form with $\{D_1\}$, i.e. wrote, whereas the latter one would usually have selected a verbal form with ' $\emptyset_1\} + \{D_2\}$ ', i.e. has written. This is because the temporal reference of the first sentence is to a specific past point which is defined by yesterday, while the second sentence refers to an unspecific point of time before the utterance of the sentence, i.e. before the present moment of reference.

It will be pointed out in a following section that all verbal forms and clusters referring to past time may be further back-shifted in time in certain situations in English.¹⁴ One such situation, for example, is to indicate 'non-factuality' or 'hypotheticalness'. All the varieties of back-shifting the past in English, however, are achieved by adding the earlier-aspect marker $\{D_2\}$ to the already existing past-tense marker $\{D_1\}$. In the case of modals that have past-tense forms with $\{D_1\}$, the process of back-shifting is completely regular. Thus:

I could cross the river when I was younger. (Factual
Past)

¹⁴For a detailed discussion of back-shifting in English, see section (H) in this chapter.

I could have crossed the river last week. (non-factual Past)

The 'ability' to cross the river did exist when 'I was younger' but it did not exist last week. Consequently, the complement 'but I was too tired to do so' is possible after the second sentence above but not after the first.

With modals that lack past-tense forms with $\{D_1\}$, no further back-shifting is formally possible in hypothetical situations since the alternative past-tense forms of these modals already have $\{D_2\}$ in their structures. It has also been mentioned previously that for reference to an 'earlier' past in English, a $\{D_2\}$ has to be introduced and added to the basic-past tense. With modals that form their 'basic-past' tenseemes by the help of $\{D_2\}$, this means that there ought to be two occurrences of $\{D_2\}$ in their earlier-past tenseemes; something which is not possible in English. Consequently, both 'basic past' and 'earlier past' of such modals are formally indicated by the same tenseeme as in the following examples:¹⁵

He must have left before we arrived. (Earlier Past)

He must have left yesterday. ('Basic Past')

¹⁵As can be seen from the first sentence in the pair above, 'earlier pastness' is indicated by the temporal adverbial clause before we arrived. Temporal adverbials, as will be shown later, are often resorted to in English to indicate various temporal relations whenever tenseemes are unable to do so formally.

A later-time reference, on the other hand, would usually require $\{\emptyset_2+\}$. However, the later aspect $\{\emptyset_2+\}$ consists of the non-earlier marker $\{\emptyset_2\}$ plus will or shall, as has been said above. Since no more than one modal can occur in any one verbal cluster in English, will or shall cannot co-occur with any other modal. Thus to refer to a later past, the alternative is either to use the earlier-present tenseme of such modals as must:

He must have left after we spoke to him,
or to use $\{D_1\}$ plus the non-earlier aspectual marker $\{\emptyset_2\}$ in the case of such modals as can which may have past-tense forms with $\{D_1\}$:

He could not walk after he was taken ill.

It is important to notice, however, that in both sentences above a 'relational' adverb of time indicating 'laterness' is compulsory or 'non-omissible'.

In the case of the present tense, it has already been mentioned that there is no formal distinction between '~~basic~~' past and earlier-present tenseemes. The earlier-present tenseme is used both to indicate earlier present as well as basic past. As we have just seen, it is also used to indicate the later-past time in modals that lack past-tense forms with $\{D_1\}$. The basic present, however, is indicated by the present-tense marker in such modals as must and can plus the non-earlier marker

$\{\emptyset_2\}$ found in the following infinitive, e.g. 'He must go' and 'He can come'. No specific reference to later time can be made by the verbal clusters alone since, as has just been mentioned, neither will nor shall are possible because of the presence of another modal. Consequently, no $\{\emptyset_2+\}$ is possible. Thus:

He <u>must go</u> now.	}	(Basic Present)
He <u>must</u> always <u>go</u> early.		
He <u>must go</u> tomorrow.		(Later Present)
He <u>must go</u> there before he comes to see me next week.		
		(Earlier-to-Later Present)
They <u>can leave</u> now.	}	(Basic Present)
They <u>can</u> usually <u>stay</u> here.		
They <u>can come</u> next week.		(Later Present)
They <u>can leave</u> before the end of this lesson.		
		(Earlier-to-Later Present)

One thing that should be noticed again in all the examples above is the role played by the temporal adverbials to specify temporal relations when verbs are formally unable to do so. Adverbials like now, always, next week, and before he comes next week in the sentences above play a vital role in the specification of temporal relationships in the case of formally invariable verbs and verbal clusters like the ones above. In fact, it is hardly correct to say that must go, for example, in the

first sentence above refers to 'basic present'; it is rather the co-occurrence of must go with now. And so is the case with the other sentences above. Adverbials of time thus seem to be extremely relevant to the indication of time in English. The present writer consequently agrees with Crystal¹⁶ that any study on time and tense in English would be incomplete without the incorporation of a discussion on the role that temporal adverbials play in it.¹⁷

(H) 'Shiftings' in Tense and Aspect

As can be seen from Diagram 15 on page 108, tense markers and aspect markers have a particular distribution on the temporal chart. This distribution, however, only represents the 'standard' temporal values of the markers and the tenseemes they occur in. Nevertheless, it does happen in English, as well as in many other languages, that these markers 'migrate' or 'shift' from their normal temporal positions and areas on the hypothetical time line.¹⁸

¹⁶ See David Crystal, "Specification and English Tenses," Journal of Linguistics, Vol. 2, No. 1 (April, 1966), pp. 1-33.

¹⁷ A detailed discussion and analysis on the role of temporal adverbials in English follows in Chapter Six.

¹⁸ Bull discusses these migration for Spanish on pp. 60-62 of Time, Tense, and the Verb.

In English, this shifting of markers can occur in two directions. It can either be forward or backward. The latter variety of shifting is more common in English, as will be shown later. However, in both cases the shift is carried out by speakers of English to express certain modes or judgments which have generally nothing to do with time. These modes and judgments are the main subject of discussion in the rest of this section. It will also be demonstrated that shiftings in English are achieved either by tense markers or by aspect markers, according to the tenseme which is shifted; but never by both types of markers simultaneously.

That a marker has been shifted is usually recognizable in language by its unfamiliar linguistic environments. This unfamiliarity in linguistic environments is commonly reflected in the unusual co-occurrences of tenseemes with adverbials of time. The co-occurrence of a past tenseme with an adverbial of time which refers to the future is not normally expected, for example. Therefore, the use of the basic-past tenseme came with the temporal adverbial tomorrow is not typical and is therefore used to create a special effect on part of the speaker or writer, as in the following:

If John came tomorrow, ...

Such an abnormal co-occurrence forms a rather unexpected linguistic environment for the presence of came.

Consequently, the tenseme came is not used here according to the systematic distribution of the various tenseemes in English. Hence, it is a 'shifted' or 'migratory' tenseme in such an environment and its shifting must be used to produce a certain effect on the listeners or readers. In the above example, for instance, the speaker uses a basic-past tenseme instead of a non-past one in order to express his 'doubt' about the probability of the 'coming' of 'John'.

The number of such possible shiftings in any language cannot be infinite, however. The flexibility of any tense-system has to be limited if that system is to remain useful for communication. If shiftings were not finite, the whole tense-system of a given language would collapse since it would be impossible for the speakers who use that system either to recognize or to produce the correct tenseemes in the correct linguistic situations.

Both the linguistic situations in which shifting is exercised in English and the different kinds of shiftings are discussed below:

1. Back-shifting in 'Reported Speech'

When reporting a past utterance, certain changes have to be made in the verbal form(s) of the original utterance. These changes are called migrations by Bull (p.60) and back-shifting by Jespersen (p.151). Jespersen's

term, however, is more descriptive of what really takes place in this case.

Back-shifting in English is basically a shift in tense markers. As has already been pointed out, English has two tenses: past and present. It is obvious therefore that only present tenseemes can still be shifted backwards in tense since the past-tense marker can no longer be shifted further towards the past. Thus, all present tenseemes in reported speech are shifted to their corresponding past tenseemes. The following are some examples of what takes place:

<u>Direct Speech</u>	<u>Reported Speech</u>
	He said that
1. "She <u>is</u> happy."	she <u>was</u> happy.
2. "She <u>will leave</u> soon."	she <u>would leave</u> soon.
3. "She has gone."	she <u>had gone</u> .
4. "She will have gone by now."	she <u>would have gone</u> by then.

As far as past tenseemes are concerned, back-shifting cannot be achieved through a shift in tense since English has no other tense-marker further back than the past-tense marker itself. Thus the only alternative is to resort to a backward shift in aspect instead. However, even here there are certain limitations. The earlier aspect $\{D_2\}$, cannot be shifted backwards either.

Consequently, a tenseme like had gone c a n be shifted backwards neither in tense nor in aspect. Besides, later-past tensemes such as would go cannot in turn be shifted either t o t h e basic-past tenseme went or to the earlier-past tenseme had gone. This is because tensemes like would go refer to what Allen calls 'anticipated' past (Verb System, p.170) whereas tensemes both like went and had gone refer to actual or realized past actions/states. The difference between would go, on the one hand, and the other two past tensemes, on the other, is thus correlated to a difference between 'anticipation' and 'actual realization', respectively. This distinction can be seen from the following sentence:

'He said he would go.'

We are told nothing in the above sentence whether the 'going' was actually realized later or not; it was only anticipated at the time of uttering the sentence above. If we want to indicate any realization we may add the words 'and he did' but not 'and he would'. Therefore, would go is not only a later-past tenseme; it is an anticipated one as well, since mere 'lateness' in the past can also be indicated by the basic-past tenseme as the following example may show:

'We left together but arrived at ou^r destination separately.'

Therefore clusters like would go are either retained unchanged in reported speech in English, or are changed to verbal clusters like would have gone thus keeping the 'anticipation' suggested by $\{\emptyset_2+\}$ in both cases, e.g.:

<u>Direct Speech</u>	<u>Reported Speech</u>
"I <u>would go</u> later."	He said that he <u>would go</u> later.
"I <u>would go</u> if I have the money."	he <u>would have gone</u> if he had the money.

The tenseme would have gone in the second reported sentence above actually consists of would go plus the earlier aspectual marker $\{D_2\}$ in gone.

This leaves us with only one alternative in the back-shifting of aspectual markers; that is the back-shifting of the basic-past tenseme. The earlier aspectual marker is added to the basic-past tenseme to shift it temporally backwards. Thus forms like went, for example, are back-shifted to had gone in reported speech.

Back-shifting is not always required in reported speech, however. First, it is not required when the introducing verb is not in the past, i.e. when the original statement is still related to the present rather than to the past. Thus we have:

'He has told me that he is coming.'

'He says he will soon come.'

The other case when back-shifting is not exercised in English is when the message reported is considered as part of 'eternal truth', i.e. not liable to change at different times. For example:

'The teacher told his pupils that the earth is round.'

2. Back-shifting for 'Hypotheticalness'

Another major purpose of back-shifting in English is to denote that the truth of a certain statement is only 'hypothetical' or purely 'imaginary'. In all such cases and many others, back-shifting regularly functions from the present-tense marker to the past-tense marker in the case of present tenseemes and from later aspect and past tense to earlier aspect in the case of past tenseemes. Thus this variety of back-shifting operates in the same way as that of reported speech discussed earlier in this section.

Consequently, such back-shifted forms are often associated with 'wishes' as wishes are imaginary situations contrary to fact and/or not yet realized.

I wish he were here now.

I wish he had been here yesterday.

Would that she came now.

If only he kept his promises.

Back-shifting of this sort is also found with forms such as as if and as though which often express 'hypotheticalness', e.g.:

He speaks as if he were an authority.

The use of were with the subject he above is one of the very few legacies of the 'subjunctive' mood left in English.

Conditional clauses with if furnish many examples of this phenomenon of back-shifting. Here are some sentences:

If it rained now I would get wet. (Improbable)

If I were you I wouldn't do it. (Hypothetical)

If he had come yesterday, he would have seen you.

(Contrary to fact)

Back-shifting is also common after such forms as the following: it's (high) time and I'd rather. These appear in sentences like the following:

It's time he went to school.

I'd rather you stayed here for the time being.

3. Back-shifting for 'Tentativeness'

Back-shifting is commonly used in English to soften the tone of a question or a demand or to make a statement sound less dogmatic and authoritative. The use of back-shifting in all such situations may be referred to as for 'tentativeness' and is found in such cases, for example, as the shift of the demanding will you to would you and the authoritative you shall to the less authoritative you should in the following examples:

Would you come here please?

You should read it carefully.

This variety of back-shifting is also commonly found in 'polite' utterances such as in the following sentences:

I wanted to ask you to lend me your book.

Did you want to see me now, sir?

4. Front-shifting

Whereas back-shifting is used in English to indicate unreality and hypotheticalness, front-shifting is conversely used to suggest 'vividness' and 'reality'. As its name suggests, front-shifting is shifting tenseemes forwardly in time, viz. transforming past tenseemes into present ones. Front-shifting, however, is less common in English than back-shifting, as has been pointed out earlier.

One of the common uses of front-shifting is when present tenseemes, particularly the basic-present tenseme, are used in reporting past incidents. This use is especially found in novels whenever the novelist is eager to add 'vividness' and 'recency' to the events of his tale so as to make the readers 'live' them, as it were, rather than view them from a distance as spectators. Such uses of present forms to denote past tense is what is traditionally called in grammar as the 'historic present'. An example of such use is the following:

'Everything was quiet in the dark room. Suddenly,

a black figure rises and moves to the door...'

The second use of front-shifting in English is found in some cases of 'broken-sequence' when instead of using a past tense to agree with the other tenses, a present one is used. This is often the case when dealing with 'facts' and 'truths' regarded as 'eternal' and 'timeless'. The following sentence is an example of such use:

Not until I began to study linguistics did I know that there are more than four thousand languages in the world.

(I) 'Redundancy' in the English Tense System

Tenseemes, as has been said earlier, are combinations of tense and aspect markers. The only exception is the basic tense in either tense in English. It has also already been pointed out that every tense in English basically comprises three main tenseemes and a fourth subsidiary one. For the present tense in English, for example, there accordingly exist the following four tenseemes:

<u>Form</u>	<u>Marker</u>
write/writes	$\{\emptyset_1\}$
has/have written	$\{\emptyset_1\} + \{D_2\}$
will/shall write	$\{\emptyset_1\} + \{\emptyset_2+\}$
will/shall have written	$\{\emptyset_1\} + \{\emptyset_2+\} + \{D_2\}$

Tense markers always appear initially in tenseemes, as can be seen from the formulas above. Aspectual markers, on the other hand, appear in second and/or third place whenever they occur. All the present tenseemes above are aspectually marked except the basic tenseme, which is first on the above list.

The two aspectual markers shown above, i.e. $\{D_2\}$ and $\{\emptyset_2+\}$, respectively indicate 'earlierness' and 'laterness' within the whole temporal area of the tense they operate in and in relation to the central axis of that tense. That central axis in both tenses in English is formally represented by the two basic tenseemes.

It happens in English, however, that temporal relations of 'earlierness' and 'laterness', which are indicated in the verb system by aspectual markers, may also be similarly expressed by some temporal adverbials or temporal conjunctions. When such an adverbial or a temporal conjunction is present, the occurrence of the temporally-corresponding aspectual marker will be redundant since both will indicate the same temporal relationship. Redundancy is thus a phenomenon found in many linguistic situations where the temporal relation indicated by a given marker is simultaneously and similarly expressed by another linguistic form in those same situations.

It is noticeable, however, that lexical forms in

English somehow seem to be linguistically and semantically more significant and more dominant than symbolic aspectual morphemes.¹⁹ Hence, in all cases of redundancy the tendency is to remove the redundancy by deleting the aspectual marker/^{rather} than its corresponding adverbial element. English speakers usually replace an earlier or later tense by its corresponding basic tense which is an 'aspectless' tense. Still, English is tolerant of most cases of redundancy. The redundant lexical form and its temporally-similar aspectual morpheme may both be retained in any linguistic situation without risking the 'grammaticalness' of the resulting utterance.

A common case of redundancy in English results from the presence of such temporal conjunctions as before and after. This is because these conjunctions express the same temporal relations as the aspectual markers $\{D_2\}$ and $\{\emptyset_2+\}$ respectively. One situation of their occurrence is found in such sentences as:

I had seen him before I wrote the letter. (Redundant)
The earliness of the event 'seeing' in relation to 'writing' which is indicated by $\{D_2\}$ in seen is similarly indicated by before in the sentence above. Thus, a case of redundancy will result and the aspectual

¹⁹Bull points out a similar observation on Spanish on page 62 of Time, Tense, and the Verb.

marker may consequently be deleted. This will produce the following version of the above sentence:

I saw him before I wrote the letter.

The distinction between the earlier-past tense had seen and the basic-past tense saw may thus be said to be 'neutralized' by the presence of before.

Similarly, the basic-present tense may replace the earlier-present tense in cases of redundancy. One of such cases may be found in these two versions of the following utterance:

What do you do in the evenings after you have finished
your work? (Redundant)

or:

What do you do in the evenings after you finish your
work?

The distinction between have finished and finish is also neutralized in the above by the presence of after.

In the case of the subsidiary tense in either tense in English which has already been said to contain both 'earlier' and 'later' aspect markers, the presence of such forms as before and after may delete the marker of the 'earlier' aspect only. This leaves the 'later-' aspectual marker $\{\emptyset_2+\}$ in both the replaced and the replacing tenses. It is only in such cases that neutralization does not involve the possible use of a basic tense. This can be seen in the following examples:

I shall have finished before you come. (Redundant)

or:

I shall finish before you come.

Deleting the later aspectual marker $\{\emptyset_2+\}$ or both aspectual markers is impossible as it will respectively produce either of the inappropriate sentences which follow:

*I shall finished before you come.

*I finish before you come.

Another linguistic situation for redundancy in English is common with the co-occurrence of such adverbials of time as later and tomorrow with the later aspectual marker $\{\emptyset_2+\}$. Consequently, the following is a redundant sentence:

He will leave tomorrow.

To remove redundancy, $\{\emptyset_2+\}$ is usually deleted. This will result in familiar English sentences as:

He leaves tomorrow.

Changing the tense markers in the above two sentences from the present marker $\{\emptyset_1\}$ to the past one $\{D_1\}$ and replacing tomorrow with later will give the following:

(He said) he would leave later. (Redundant)

(He said) he left later.

The difference between the above two sentences is not only one of the presence and absence of redundancy, respectively. It has been pointed out earlier that tenseemes

like would leave indicate 'anticipation' in the past
 whereas basic-past tenseemes, like left in the^{second}/sentence
 above, indicate 'realization'. In the latter sentence
 the 'leaving' did take place whereas in the former it
 was only expected to take place after the point of re-
 ference in the past and we are not told whether it did
 take place or not. Thus the redundancy in 'He would
 leave later' is not optional, i.e. it has to be retained,
 since removing it will produce a sentence which is se-
 mantically different.

(J) The Sequence of Tenseemes

1. The 'Permanence of Reference Point'

The problem here is to describe and explain the
 occurrences of tense and aspect markers within a sequence
 of verbs and verbal clusters in one sentence as well as
 in a number of sentences. Many grammarians and linguists
 have already dealt with the problem under discussion.
 But, as we will see soon, neither all the facets of the
 question have been investigated nor have all the facts
 been yet accounted for.

Close over-simplifies the problem when he states
 that the 'sequence of tenses' is simply "a matter of
 deciding which tense is suitable for each separate action"
 (Close, p.106). He then presents the learner of English
 with the following piece of advice: "Take care of each

tense, therefore, and the sequence will usually take care of itself" (p.106). Close's solution of the problem may work in cases where the verbal forms concerned occur as main verbs in simple sentences or in compound sentences where the orientation of such verbal forms may be easily made in reference to some explicit adverbials of time. For example, in:

I saw him yesterday and we shall meet again tomorrow.

In the sequence of saw and shall meet, there is actually no relationship between the temporal orientation of the two verbal forms. This is because each tense occurs in an independent clause and is oriented to a separate point of reference represented by $\{D_1\}$ and $\{\emptyset_1\}$ as well as by the two temporal adverbs yesterday and tomorrow. In such cases as the above, Close's advice of taking care of each tense separately is feasible, but it seems that the question of 'the sequence of tenses' is far more complex than that.

In cases of complex sentences where there is more than one finite verb, the interpretation of 'the sequence of tenses' has long been a bone of contention among grammarians. Thus far, Reichenbach seems to have offered the best solution to the problem. In his Elements of Symbolic Logic, he states that "we can interpret these rules of the 'sequence of tenses' on the principle that, although the events referred to in the clauses may

occupy different time points, the reference point should be the same for all clauses" (p.293). Reichenbach calls his principle the Permanence of the Reference Point and gives the following example to illustrate it:

(E = Event; R = Reference Point; S = Speech Point)

I had mailed the letter when John came and told me the news.

1st clause: E1 - R1 - S

2nd clause: R2,E2 - S

3rd clause: R3,E3 - S

Reichenbach points out the 'coincidence' of the three reference points above and adds that it would be consequently incorrect to shift the point of reference in any of the clauses above (p.293). He then gives the following sentence as an example of the ungrammaticalness which will result out of lack of 'coincidence' in the reference points of the above sentence:

*I had mailed the letter when John has come.

Reichenbach's above principle is in line with the basic tenets that have already been expressed in the present study. One of these basic tenets is that all English verbexes are to be formally marked to refer either to a past point of time or to the present moment of speech. Thus English has been said to have two points of reference only: a past point of time

and a present point of time. All verbal forms that are clustered around the former reference point are formally marked by $\{D_1\}$ whereas all those that cluster around the latter point of reference are formally marked by $\{\emptyset_1\}$. Moreover, any verbex has to show a certain temporal relationship with the reference point the marker of which it carries. These temporal relationships are of various types and not only of three types, as Allen points out.²⁰ These relationships are in most cases formally marked by the aspectual markers: $\{\emptyset_2\}$, $\{D_2\}$ and $\{\emptyset_2+\}$. Thus $\{\emptyset_2\}$ would indicate a time-relationship non-earlier than a point of reference, $\{D_2\}$ an earlier time-relationship, and $\{\emptyset_2+\}$ a later temporal relationship. The absence of an aspectual marker would indicate the same temporal point as that of the reference point.

Another basic principle already suggested in this study is that there can be no verbex in English that is simultaneously oriented to both reference points mentioned above. The whole tense system would fall into chaos if this were the case. Consequently, any English verbex can refer to and be formally marked for only one reference point at a time.

²⁰ Allen, op. cit., p.164. (Allen's three temporal relationships are the earlier, same, and later. There are still however other possible relationships in time such as the pre-earlier, post-earlier, pre-later, post-later, etc. The last four relationships may be considered as secondary or derived as they consist of combinations of the first three basic ones.)

Thus the 'permanence of reference point' seems to be the only inevitable outcome in line with the basics of the present study. Any number of verbal forms that are temporally related by being formally marked either by $\{D_1\}$ or $\{\emptyset_1\}$, but never by both, must have a permanent point of reference as a result. Thus all the various tense-emes of either tense in English refer to the same axis of that tense and show some temporal relationship with it.

There are basically three distinctive types of temporal relationships with either reference point in English, viz. 'earlierness', 'sameness', and 'laterness'.²¹ Consequently, any action/event indicated by a tenseme that carries the earlier aspectual marker $\{D_2\}$ will occur earlier than any of the other tenseemes related to the same point of reference. On the other hand, a tenseme which expresses 'sameness' by lacking any aspectual marker, will coincide with the occurrence of the events of its other fellow tenseemes. Finally, a tenseme which has the later aspectual marker, $\{\emptyset_2+\}$, will occur at a time later than any of the other tenseemes which cluster

²¹Allen has the same tripartite division of temporal relationships though he uses different formal markers. He also gives these divisions as the only ones, whereas as has just been said on the previous page, they are not. However, though not the only ones, they are the distinctive or basic ones.

around its point of reference.²²

In a sentence like the following, for example:

He had promised he would do it when he could,
all three tenseemes are marked by $\{D_1\}$ and thus all refer
to one point of reference, viz. a point in the past.
Using Reichenbach's symbols of E and R, we can symbolize
the sequence of the above three tenseemes as follows:

E_1	-	R_1	-	S
		R_2	-	E_2 - S
		R_3	-	E_3 - S

We can also notice the co-occurrence of the two events
in could and would do according to the principle of
'sameness' expressed earlier in this section. The event
in had promised is marked by $\{D_2\}$ as earlier than the
point of reference and than the other two events repre-
sented by the other two tenseemes. Nevertheless, all
three temporally-related tenseemes refer to one reference
point according to Reichenbach's principle of 'permanence
of reference point'.

Both Allen and Reichenbach himself, however,
cite many other sentences as counterexamples to the pre-
viously mentioned principle of 'permanence of reference

²²Allen expresses a similar principle as the
above but he confuses 'occurrence' with 'reference',
i.e. Event with Reference in Reichenbach's terminology.
Thus Allen draws the erroneous conclusion that two
subsequent events have two different reference points
(see Allen, op. cit., p. 166).

point' in the interpretation of the sequence of tense in English. In this respect, Reichenbach states that "if the time relation of the reference points compared is not identity, but time sequence, i.e., if one is said to be before the other, the rule of the permanence of the reference point can thus no longer be maintained" (Reichenbach, p. 294). He then cites the following two examples to prove his point:

He telephoned before he came.

He was healthier when I saw him than he is now.

For the first sentence above, Reichenbach claims that the point of reference for the first event, telephoned, is earlier than that for the second event, came. But here Reichenbach seems to contradict what he himself had said earlier in his book when he used the following sentence to prove his 'permanence of reference' principle:

I had mailed the letter when John came and told me. The temporal relationship between the two events had mailed and came is exactly similar to that of the two events in Reichenbach's apparent counterexample above, i.e. telephoned and came. In both examples above, the first event is earlier than the second. Yet, Reichenbach cites the second example above to support his principle of the permanence of reference but the first as an exception to that same principle. Reichenbach may have been misled by the formal difference between had mailed

on the one hand and telephoned on the other. 'Earlier-ness' is formally marked in the former by $\{D_2\}$ but not so in the latter. But surely linguistic forms should not be analyzed out of context. In the case of the above apparent counterexample, 'earlierness' is also formally marked but this time by the temporal conjunction before and not by the verb. The form had telephoned would thus be redundant though still possible. Temporally speaking therefore, both the following sentences have the same relationship between their tenseemes:

He had telephoned before he came.

He telephoned before he came.

Both tenseemes in each of the two sentences above are formally marked by $\{D_1\}$ to refer to the same point of reference, i.e. a point in the past. Thus both are similarly analyzable as:

E1	-	R1	-	S
		R2,E2	-	S

Consequently, Reichenbach's system of the permanence of reference is still valid in the first apparent 'exception' he cites above. His second counterexample will be discussed later in this section.

Allen denies the validity of the principle of the 'permanence of reference point' altogether in the interpretation of 'tense sequence' in English. Rather, he claims that in complex sentences, "each E (i.e., the time

indicated by each verb-cluster) serves as the reference point for the E on the next lower level" (Allen, The Verb System, p.166). He cites the following two sentences as examples of violations to the principle of the 'permanence of reference point': (p.79)

1. He had not believed in what he was doing.
2. ... they had said it would kill him in a year if he did not give up alcohol for at least three months.

Allen analyzes the above two sentences respectively according to his own principle just mentioned above as follows:

- | | | | | | |
|----------------|--------|---|--------|---|---|
| 1. 1st clause: | E1 | - | R1 | - | S |
| 2nd clause: | R2, E2 | | | - | S |
| 2. 1st clause: | E1 | - | R1 | - | S |
| 2nd clause: | R2 | - | E2 | - | S |
| 3rd clause: | | | R3, E3 | - | S |

As far as the first sentence above is concerned, both tenseemes are formally marked to be oriented to $\{D_1\}$.

Moreover, the event of the second tenseme co-occurs with that of the first. This is according to the principle of temporal relations mentioned earlier in this section, since the second tenseme lacks any of the markers $\{D_2\}$, $\{\emptyset_2\}$ and $\{\emptyset_2+\}$; it also possesses the aspectual marker of simultaneity $\{N\}$, which will be fully explained in a later chapter. Thus the first sentence above may in fact/more systematically analyzed according to the

principle of the permanence of reference point as follows:

E1	-	R1	-	S
E2	-	R2	-	S

Both events are thus shown to have occurred simultaneously before a point in the past. Their point of reference is the same and they are both formally marked for this similarity of reference by the presence of $\{D_1\}$ in their tenseemes. Allen's claim that every event functions as the point of reference for the next one thus does not seem to be tenable as it seems to undermine the basic system of the English tense, viz. that there are only two points of temporal reference formally represented in English tenseemes.

In Allen's symbolic analysis of the second sentence quoted above, there is no ground for putting E2 before S to stand for would kill since E2 could equally fall after the point of speech S. Actually, it is immaterial whether the event in such verbal clusters as would kill occurs before or after the moment of speech or whether in fact it occurs at all. This is because such tenseemes are oriented to a point in the past, i.e. they refer to $\{D_1\}$ and thus they cannot be simultaneously considered in relation to any other point of reference such as the moment of speech. Thus tenseemes like would kill are rather to be symbolized as follows,

R	-	(E)	-	S (E)
---	---	-----	---	-------

to show that the event E may occur before as well as after the point of speech, i.e. the event may as well as may not have happened at S. This is why it is here suggested to drop S altogether from the symbolic representation of tenseemes. This would give us the following alternative analysis of would kill, for example:

R - E

Now in order to remove any ambiguity from the above formula, the symbol R may be replaced by $\{D_1\}$ which unmistakably stands for a point of reference in the past. Consequently the three tenseemes in Allen's second sentence quoted above can be analyzed as follows without violating the permanence-of-reference principle:

E1	-	D1	
		D1	- E2
		D1	- E3

Thus the second of Allen's counterexamples is again analyzable in line with the basic canons of the present study and without violating the fundamentals of the English tense system.

Elsewhere in his discussion of the question of 'tense sequence', Allen puts forward two further sentences as other counterexamples to the principle of permanent reference. These are: (The Verb System, p.145)

1. She sewed a whole dress for Alice before they rowed her across the river.

2. They were considered unsafe for passenger use
until Elisha Graven Otis invented a protective
ratchet device which prevented falls.

However, Allen here seems to have fallen into the same trap as Reichenbach in that his sentences contain temporal conjunctions, viz. before and until, whose occurrence makes the presence of certain tenseemes redundant. Thus in the first sentence of the above two, the redundant tenseme had sewn may replace the tenseme sewed whereas were considered in the second sentence may be replaced by the redundant tenseme had been considered. Allen's two above sentences are similarly analyzable as representative of rather than contradictory to the principle of the 'permanence of reference point'. They can be thus respectively analyzed as:

- | | | | |
|----|----|---|---------|
| 1. | E1 | - | D1 |
| | | | D1, E2 |
| 2. | E1 | - | D1 |
| | | | D1, E2 |
| | | | D1 - E3 |

It may be interesting to notice that in the second sentence above, the last two tenseemes represent sequential events rather than simultaneous ones though the second one of the pair, i.e. prevented, is supposed to refer to the same time of invented according to the rule of the temporal relationship among tenseemes which has been

formulated earlier in this section.²³ This is because English distinguishes between a 'later' past and an 'anticipated' past, as has been mentioned earlier in this chapter. Thus reference to two sequential events that did actually take place in the past is made by marking both of them with $\{D_1\}$ only rather than by adding $\{\emptyset_2+\}$ to the second tenseme since $\{\emptyset_2+\}$ is specifically used for 'anticipation' as distinguished from 'assertion' or 'realization'.

Allen puts forward other sentences and analyses them according to his own principle of a 'shifting' or 'hierarchic' reference point, i.e. each tenseme functions as a reference point for the tenseme on the next lower level. But just as has already been demonstrated with some, all other sentences of Allen may be more accurately analyzed in terms of the permanence of the reference point.

2. 'Broken Sequence'

Some aspects of the phenomenon of what is commonly referred to in English grammar as 'broken sequence' has already been touched upon in the discussions on backward and forward shiftings in English. 'Broken sequence' refers to an unexpected change in the sequence of tenseemes in a given sentence. This unexpected change is usually

²³ See page 128

represented by a shift from one tense marker to the other, e.g. a past tense occurring where a present one is expected according to the rules of sequence already discussed in the discussion of the previous section on 'tense sequence'.

In some cases of broken sequence in English, a past tense appears where a present one is expected. Such cases have been mentioned already under the heading of back-shifting, e.g.:

I wish he spoke Arabic.

It is time we left.

Similar back-shifting occurs in sentences like the following one:

I have given him as much money as he asked for.

Both tenses, i.e. have given and asked indicate an indefinite point in the past. Hence has asked might be expected for the second tense above. But it is a peculiarity of English that a second indication of an indefinite past point of time is usually made by a basic-past tense rather than by an earlier-present tense, as if the unidentified point had already become sufficiently defined by the event of the first/^{tense}and the second reference to it.

Other cases of broken sequence usually occur in what has already been called 'forward shiftings' or 'front shiftings'. It has been said earlier that this

type of shifting is usually used to suggest 'vividness', 'immediacy', or 'reality' of an event. Thus:

1. The ancients thought that winds were caused by angry gods; but
2. The ancients did not know that winds are caused by changes in air pressure.

The manipulation of the tenseemes in the two sentences above is significant in that the choice of a present tenseme instead of the expected past one in the second sentence is to indicate the 'truth' and 'reality' of the second statement against the 'falsity' of the first.

Allen mentions many examples of 'broken sequence' which he does not try to give any explanation for. All his examples, however, seem to fall under the phenomenon of front-shifting and are explainable accordingly. Here are some of Allen's sentences: (The Verb System, p.189)

Your teacher told me yesterday that you don't pay attention in the class.

That was the boy who mows our lawn.

I read in l a s t night's paper that the Wharton's have a baby boy.

They told me that Mr. Puddleditch is in Europe.

The occurrence of some adverbials of time may also force a change in the normal sequence of tense. Thus the temporal adverbial these days in the following sentence

forces a tense shift to the present:

A year ago prices were cheaper than they are these days.

The same thing may be said about Reichenbach's sentence which has been quoted earlier in this section, viz.:

He was healthier when I saw him than he is now.

It is obvious that in all cases of 'broken sequence' mentioned above, the point of reference for the tenseemes in any one sentence does not stay the same. Thus the principle of the 'permanence of reference' is not valid in such cases. Reichenbach has realized this and analyzed the above sentence as ^{follows} ~~above~~: (p.294)

1st clause: R1,E1 - S

2nd clause: R2,E2 - S

3rd clause: S,R3,E3

All such examples of broken sequence, however, represent special cases that can be easily explained and thus do not affect the validity of the general principle of the permanence of reference point.

(K) Verbs in the English Tense System

1. Verbs as Tenseemes

The majority of lexical verbs in English have six conjugational forms each. To take the verb write as an example, these six verbal forms are:

write, writes, wrote, writing, written, (to) write

The first three of such regular verbs are always marked by tense markers. The first two above are marked by the present-tense marker $\{\emptyset_1\}$ whereas the third form is marked by the past-tense marker $\{D_1\}$. Such verbal forms can thus be said to be 'time-oriented', i.e. they refer either to a past or a present point of time. They are also said to be 'finite' in that they are formally and semantically correlated with subjects in the sentences in which they occur.²⁴ Verbs like the first three above which carry tense markers and are time-oriented are called verbexes by Allen (The Verb System, p.107). Jespersen uses the term verbiids to refer to the last three verbal forms which lack such an orientation in time as a result of not being marked by either of the two tense markers (Jespersen, p.85).

Time reference of some sort is basic in the English verbal system. Thus it is the hypothesis of the present study that no English verbal form is without a temporal marker of some kind. These markers, as has already been suggested, are of two major types: tense markers and aspect markers. The whole structure of the English tense system is based on these two varieties of

²⁴The 'formal' relationship between a finite verb and its subject is realized through what has been traditionally called the categories of number and person. The 'semantic' co-relationship, on the other hand, can be understood from such traditional terms as actor and action applied to a subject and its finite verb, respectively.

markers. Thus, if verbids lack tense markers, they must be marked by temporal aspectual markers. A systematic description of the linguistic behaviour of English verbids clearly shows that this is the case. The three verbids writing, written, and write are respectively marked by the aspectual markers: $\{N\}$, $\{D_2\}$ and $\{\emptyset_2\}$. The temporal significance of the first marker, viz $\{N\}$, will be discussed in the next chapter. The second and third markers have the same temporal significance as in time-oriented compound and complex tenseemes, i.e. $\{D_2\}$ for earlier-time reference and $\{\emptyset_2\}$ for neutral or non-earlier time reference. The aspectual variety $\{\emptyset_{2+}\}$, which is a sub-branch of $\{\emptyset_2\}$, cannot occur with verbids since $\{\emptyset_{2+}\}$ can only be found when $\{\emptyset_2\}$ co-occurs with will or shall which do not occur in verbid clusters in English at all.

Thus it becomes clear that minor tenseemes, like writing, written, write, having written, to be written, and being written do have temporal reference of their own which is formally marked by $\{D_2\}$, $\{\emptyset_2\}$ and $\{N\}$. Yet, such verbids and verbid clusters lack temporal orientation to a specific point of reference. However, although verbids and their clusters do not show temporal orientation formally, they often do show such an orientation contextually by reference to the tense of the sentence in which they occur. Contextually, therefore, verbids

and verbid clusters do in most cases indirectly refer to one of the two tenses in English though they lack any explicit formal marker to this end. The following sentence is an example of such cases:

Having written the letter, I went to bed.

The above underlined verbid cluster is formally marked by $\{D_2\}$ which signifies earlier-time relationship. However, this 'earlierness' is not formally specified to be either with respect to the present moment or to a past moment. Yet, we know by the help of the tense went which is marked for 'pastness' that the 'writing' of the letter had taken place earlier than the 'going' to bed, and since the 'going' is formally marked to have taken place in the past, the verbid cluster having written comes to indicate 'earlierness' with respect to a point in the past in this particular context. Thus verbids and verbid clusters also seem to belong to one of the two tenses whenever they occur in English sentences, though they are not themselves marked for that. Hence to regard verbids and verbid clusters as tenseemes seems to be justifiable. However, it must be realized that they cannot be put on equal footing with other tenseemes which are formally marked for temporal orientation to either of the tenses in English. It is therefore suggested here to regard verbids and their clusters as minor tenseemes and to use the term major tenseemes to

distinguish all other tenseemes such as has written, will write, and writes when such a distinction is necessary. To consider verbids and verbid clusters as tenseemes is also justified by the transformational discussion on tense and aspect in Chapter Five which assumes that all verbids and their clusters are originally represented by verbexes and verbex clusters whose tense markers have been subsequently deleted.

2. Verbids and Their Clusters

Minor tenseemes can occur both as single words and as clusters. As single words, they have the following three forms in English, taking the verb write as an example:

writing: It is traditionally called a 'present participle' or a 'first participle'. It is formally marked by the morpheme $\{N^2\}$ whose temporal significance will be the subject of the next chapter.

written: This form is traditionally called the 'past participle' or the 'second participle' form of a verb. Here it may be called the 'earlier minor tenseeme' as it is temporally marked by the morpheme $\{D_2\}$.

write: This form has the traditional name of 'infinitive': its marker $\{\emptyset_2\}$ has a non-earlier temporal reference. It may thus be called

here 'the non-earlier minor tense²⁵'.

As for verbid clusters, they may occur in a large variety of forms. The following list shows various forms that verbid_s^{and verbid} clusters may take in English, using the verb write as an example:

1. write
2. written
3. be written
4. been written
5. having been written
6. have been written
7. being written
8. having written
9. have written
10. writing
11. be writing
12. been writing
13. having been writing
14. have been writing
15. being writing

From the list of both verbid_s and verbid clusters^{that} above, it can be seen/not all of them occur with be

²⁵ Notice that these terms are not meant to be pedagogical ones since for such purpose shorter and more familiar terms would be required.

or have associated with them. Yet, these minor tenseemes do show temporal relationships, as has already been shown. Consequently, it would be erroneous to assume, as Allen does (The Verb System, p.257), that 'earlierness', for example, is formally represented by have rather than by $\{D_2\}$ as has been assumed in the present study. It is inconsistent of Allen to relate 'earlier time-relationship' to have in 'I have eaten all the food', whereas the same 'earlierness' is related to the 'past participle' form of the sentence 'I saw the melon eaten' which Allen gives on page 236 of his Verb System of Present-Day American English.

3. 'Commands' as Verbiids

The structure of the command sentence 'Go home', for example, is here understood to be related to the statement 'You will go home'. This assertion can be formally supported by the form of the tag-question that may be added to such commands. Only the tag-question 'will you?' is possible after such commands. That will is the omitted verb from the command sentence above can be shown by the ungrammaticalness of such forms as tag-questions to the above command as 'can you?', 'have you?', or 'are you?'. That you is the omitted subject of the above command sentence can be seen from the incorrectness of such tag-questions to commands as 'will he?', 'will they?'

or 'will she?'. It may also be added that the auxiliary will is obligatorily deleted from command sentences whereas the deletion of the subject you is optional. Thus 'You go home!' is also grammatical. When you occurs in such commands as the above, it may be replaced by any noun that can be used for addressing one or more people. Thus the following, for example, are also grammatical alternative commands:

Everybody, go home!

John, go home!

Boys, go home!

Madam, please go home!

Such a treatment of commands shows that the imperative verb in 'Go home!' is a verbid, i.e. a minor tenseme that lacks a tense marker. The imperative verbid is thus seen here to consist of the base go plus the non-earlier aspectual marker $\{\emptyset_2\}$. Hence imperative verbs refer to all non-earlier time in English, viz. to near and far future as well as to the point of speech or the present moment. However, imperative verbids may be specifically marked by temporal adverbials to indicate a unique temporal location within the general non-earlier temporal field, e.g.:

Go home now!

Stop it immediately!

Do it next week!

Bring it back tomorrow!

4. The Non-verbal Uses of Verbids

It has already been made clear that all verbids, whether single words or clusters, consist of verbal elements and that the core of any verbid or verbid cluster is one of the following forms in the conjugation of verbs: 'the present participle', 'the past participle', 'the infinitive'. Thus, formally, verbids and verbid clusters are verbals. But it is a linguistic fact that verbal elements may be used non-verbally in English (Sledd, p.90). This is found when such verbal elements, usually in the form of verbids, assume the positions of parts of speech other than those of verbs. In the following sentence, for example,

To swim is fun,

the form to swim is a verbal which assumes the position of a noun. This can be easily demonstrated if we notice the substitutability of to swim by nouns but not by verbs in the sentence above. Thus the following are grammatical sentences:

Music is fun.

Travel is fun.

But not:

*Has gone is fun.

*Will speak is fun.

*Goes is fun.

It is also axiomatic in linguistics that changes in the normal distribution of any linguistic form usually produce a change in the significance of that form (Allen, The Verb System, pp.121-122). Accordingly, a change in the position of verbal forms will produce a change in their functions. The temporal significance of verb markers will also change as a result. Verbal temporal markers like $\{D_2\}$, $\{\emptyset_2\}$, $\{N\}$ will no longer have their normal temporal significance when they appear in non-verbal positions in English.

To give a detailed account of all verbal positions that verbids and verbid clusters may assume in English sentences is beyond the scope of the present study which is not basically a syntactic description of the English verbal system. Yet it is possible to specify the verbal uses of verbids negatively by identifying their non-verbal uses. It is to be remembered that the verbid markers $\{D_2\}$, $\{\emptyset_2\}$, and $\{N\}$ are to be considered as temporally insignificant in all such non-verbal uses of verbids.

The above-mentioned verbid markers can all be found in verbids used non-verbally in English, i.e. as nominals and adjectivals. The following sentences show such non-verbal uses of all the three verbid markers:

1. $\{D_2\}$: a. Nominal : The wounded are better now.
 b. Adjectival : Used cars are not reliable.
2. $\{\emptyset_2\}$: a. Nominal : To speak many languages is wonderful.
 b. Adjectival : This is a day to remember.
3. $\{N\}$: a. Nominal : Swimming is fun.
 b. Adjectival : Running waters are less liable to be contaminated than still ones.

The form to usually functions as a nominalizer when it precedes verbids with $\{\emptyset_2\}$. Thus verbid clusters like to eat, for example, are always non-verbal in English.²⁶ Such verbal clusters, however, can also function adjectivally as shown in (2.b) above. On the other hand, verbids with $\{\emptyset_2\}$ but without a preceding to are always verbal since they occupy "distinctive positions not occupied by any other group of forms" (Sledd, p.90). Thus in:

I saw him do it,
 the temporal marker $\{\emptyset_2\}$ signifies its normal temporal value of 'non-earlierness'.

Both $\{D_2\}$ and $\{N\}$ in English appear in forms that are traditionally called 'participles'. Participles can

²⁶ Notice that in sentences like 'I am going to eat', the form to is part of the quasi-modal going to and is hence not a nominalizer in such cases.

have adjectival and nominal functions besides their original verbal ones.²⁷ The simplest way to identify the non-verbal uses of verbids with $\{N\}$ and $\{D_2\}$ seems to be that of substitutability. If any of such verbids with $\{N\}$ or $\{D_2\}$ is replaceable by a noun without affecting the grammaticality of the resulting sentences, then that verbid is a nominal and not a verbal.²⁸ Thus reading is a nominal in the following sentence:

The reading was slow,
because the form reading is grammatically replaceable
by nouns, as in the following:

The boy was slow.

But reading in the following sentence cannot be correctly replaced by nouns; hence it is not a nominal:

He is reading French.

The same is true of verbids with $\{D_2\}$ when they are replaceable by nouns. Thus, the 'past participle' is a nominal in :

The crippled are slow.

According to the same principle of substitutability, every verbid form with $\{D_2\}$ or $\{N\}$ that is .

²⁷Forms with $\{N\}$ that specifically function as nominals are traditionally called 'gerunds'.

²⁸Sledd's terminology is being used here. A 'noun' is any form that can formally show the singular vs. plural relationship while a 'nominal' is any form that can occur in the positions in which nouns occur in English sentences.

replaceable by adjectives is an adjectival and cannot therefore be a verbal.²⁹ Thus interesting in the following sentence cannot be a verbal as it can be grammatically substituted for by adjectives:

It was an interesting novel.

Replacing interesting by the adjective long, for example, will still produce a grammatical English sentence. Consequently, interesting in the above sentence is an adjectival and not a verbal. Similarly, the verbid interested, with $\{D_2\}$, is not used verbally in the following:

She was very interested.

The 'past participle' above can be correctly replaced by any one of the following adjectives: beautiful, rich, tall, etc...

The last sentence above suggests another simple test to identify the adjectival use of verbids. Adjectivals, but not verbals, can be preceded by very.³⁰ Thus the verbid frightened in the following sentence is an adjectival:

The boy was (very) frightened.

But not in the following, since it cannot be correctly preceded by very:

²⁹Following Sledd, adjectives are forms that can be compared like poor, poorer, poorest; while adjectivals are forms that occur in the positions of adjectives, i.e. that are replaceable by adjectives.

³⁰Archibald Hill, Introduction to English Linguistics (New York: Harcourt, Brace and World, Inc., 1958), p.288.

The dog has frightened the boy.

Nominals can be identified, as has already been suggested, by their capability of occurring in positions usually held by nouns in English sentences. Sledd gives the following 'slots' as testing frames for nominals in English: (Sledd, p.88)

The _____ seemed good.

_____ seemed good.

The _____ considered the _____.

The _____ gave the _____ a _____.

"A form is a nominal when it occurs in any one of the above positions which we have labeled nominals or in any unlabeled position consistently occupied by forms which consistently occupy the labeled positions" (Sledd, p.88). Thus in:

I am fond of reading,

I like to read,

The convicted were rebellious,

reading, to read and convicted are all nominals in labelled positions since they can appear in some of the slots in the testing frames above. Consequently, the markers $\{N\}$, $\{\emptyset_2\}$, and $\{D_2\}$ which are associated with the above three non-verbal verbids are void of their normal temporal significance in these occurrences.

In a sentence like the following:

Having finished school, I went home,

we have the two verbids having and finished. Using the testing criteria given above, we can conclude that finished is used verbally and consequently the marker $\{D_2\}$ does signify earlier temporal relationship here. We can see this by observing that finished in the sentence above cannot be correctly replaced either by adjectives or by nouns. It cannot be preceded by very either. On the other hand, it can be concluded that the marker $\{N\}$ in having is a nominalizer rather than a verbal temporal marker. The whole verbid cluster having finished school is a nominal here; it fits into the slot of Sledd's second testing frame shown earlier. The nominalizer $\{N\}$ appears always initially in nominal verbid clusters, as can be seen from the following:

After running for an hour, the horse got tired.

After being run for an hour, the horse got tired.

After having run for an hour, the horse got tired.

After having been run for an hour, the horse got tired.

All the four verbid clusters above are governed by the preposition after. English uses the marker $\{N\}$ to identify such verbid clusters as being nominals in sentences as the above four.

Finally, it might be worthwhile to point out that the verbid markers $\{D_2\}$, $\{\emptyset_2\}$ and $\{N\}$ sometimes suggest their characteristic temporal values even when the verbids they are attached to are used non-verbally. This is

particularly true when such verbids are used adjectivally. Thus in such phrases as 'the paid price' and 'the price to pay', the markers $\{D_2\}$ and $\{\emptyset_2\}$ still suggest 'earlierness' versus 'non-earlierness', respectively, though they are used here as part of adjectival verbids. On the other hand, in the phrases 'a drowning boy' and 'a drowned boy', the markers $\{N\}$ and $\{D_2\}$ respectively suggest 'simultaneity' versus 'earlierness' though again their verbids are used non-verbally but adjectivally. This transition of the temporal significance of markers from verbals to adjectivals, but not to nominals, may partly be responsible for Lyons remark that "'adjectives' and 'verbs' have much in common, and that in many languages (including English) they are correctly brought together as members of the same deep structure category" (Lyons, p. 326).

(L) Recapitulation

From all that has been said in this chapter, it seems that the English tense system basically consists of morphemes that represent points of reference and other morphemes that stand for different temporal orders in relation to those points of reference. Various tenseemes are the product of various possible combinations and interrelationships between these points of reference and these order relations.

Any English verbex or verbex cluster has to be formally marked in order for it to be oriented to either the present moment of speech or to an identified past point of time. The formal markers used for this purpose, it has been said, are the temporally-significant morphemes $\{\emptyset_1\}$ and $\{D_1\}$, respectively. Verbexes and verbex clusters with $\{D_1\}$ are, however, themselves indirectly, temporally though not formally, oriented to the present moment of speech, i.e. they are 'past' only in relation to the present moment of speech. Thus the prime axis of the whole structure of tense in English is the present moment. The present moment is the common experience and the denominator of all the speakers of any language. This might explain why present tenseemes in English are not positively marked by any formal temporal marker.

Verbids and verbid clusters, on the other hand, are used in the English tense system to indicate temporal relationships within the two major temporal fields of past and present. In other words, by use of the verbid temporal markers $\{D_2\}$, $\{\emptyset_2\}$ and $\{N\}$, speakers of English can indicate whether a certain action/state, formally represented by the base of the verb in any sentence, is respectively either 'earlier', 'non-earlier', or 'simultaneous' to the point of reference formally represented by the tense marker in that given sentence. These verbid markers are all considered here as aspectual markers.

Their function is to put an action/state in a specific order in relation to a point of reference.

Temporal reference is considered to be intrinsic in the English verbal system. The base forms of all English verbs represent actions or states. All actions or states must occur in time in English sentences. Thus base forms of verbs are always formally marked for some sort of temporal reference whenever and wherever they occur in English sentences. Most verbs have six forms in English. Each of these six forms can be analyzed into a base plus a temporal marker. Temporal markers can in turn be divided into tense markers versus aspect markers. The former type of markers consists of past and present tense markers, whereas the latter may be primarily divided into earlier and non-earlier temporal markers. Non-earlier markers can in turn be sub-divided into simultaneous and later temporal markers. It thus seems that the whole structure of the tense system in English may be analyzed in terms of binary oppositions. This binarity may be represented in a diagram like the following:

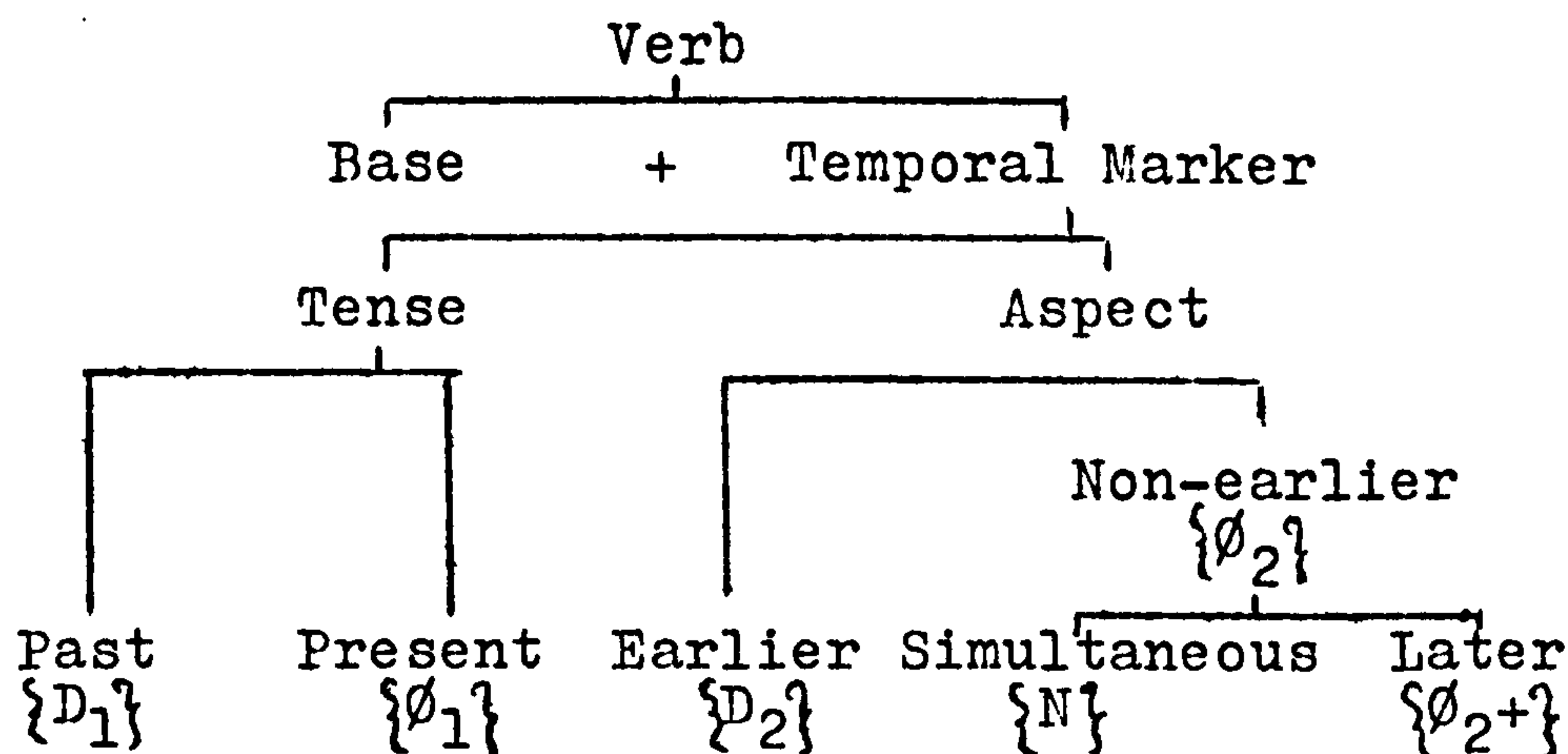


Diagram 17

Binary Oppositions in English Tense Markers

The base form of any verb in English can only be marked for ONE temporal value at a time. No base form can be simultaneously marked by more than one temporal marker. Moreover, the tense markers of past and present are indispensable in any tense in English.³¹ When one or more aspectual markers occur^{the last} in any tense, / one is always added to the base form of that tense. This will leave any other temporal markers 'floating', i.e. not carried by a verbal form. In such cases, English introduces a grammatical form to carry each of the 'floating' markers. The grammatical forms that English uses for this purpose are modals, HAVE or BE. These carriers can be used to carry tense markers as well as

³¹Even in minor tenses, tense markers are considered to have been deleted by a subsequent transformational rule. (See earlier in this chapter as well in Chapter Five)

aspectual markers. The selection of carriers is predictable; it is determined by aspectual markers in that $\{D_2\}$ always selects a form of HAVE to carry the marker which precedes it, $\{\emptyset_2\}$ selects a modal, and $\{N\}$ selects a form of BE. Thus in simple English tenseemes, there is only a tense marker; in compound tenseemes there is a tense marker plus one aspectual marker; whereas in complex tenseemes there is a tense marker plus two or more aspectual markers. Tense markers always appear initially in verbex clusters. When more than one aspectual markers are present, i.e. in complex tenseemes, sequential markers always precede the marker of simultaneity. Sequential markers include the earlier marker $\{D_2\}$, the non-earlier marker $\{\emptyset_2\}$, and the later marker $\{\emptyset_{2+}\}$. The last two markers precede the first one in English tenseemes. However, non-earlier and later aspects never co-occur in any English tenseme. As has already been said, these two aspects select a modal for the temporal markers preceding them; this may explain why modals are always initial whenever they occur in verbal clusters. The following sentences show the sequence of temporal markers in English tenseemes:³²

³² All the present tenseemes in these sentences may be changed into past ones by replacing $\{\emptyset_1\}$ with $\{D_1\}$ and keeping other markers unchanged.

- | | |
|---|---|
| 1. I <u>go</u> there regularly. | : base + $\{\emptyset_1\}$ |
| 2. I <u>have gone</u> there
regularly. | : HAVE + $\{\emptyset_1\}$ + base +
$\{D_2\}$ |
| 3. I <u>shall go</u> there
regularly. | : WILL + $\{\emptyset_1\}$ + base +
$\{\emptyset_2\}$ |
| 4. I <u>am going</u> there
regularly. | : BE + $\{\emptyset_1\}$ + base + $\{N\}$ |
| 5. I <u>shall be going</u> there
regularly. | : WILL + $\{\emptyset_1\}$ + BE + $\{\emptyset_2\}$
+ base + $\{N\}$ |
| 6. He <u>has been going</u> there
regularly. | : HAVE + $\{\emptyset_1\}$ + BE + $\{D_2\}$ +
base + $\{N\}$ |
| 7. I <u>shall have gone</u> there
regularly. | : WILL + $\{\emptyset_1\}$ + HAVE +
$\{\emptyset_2\}$ + base + $\{D_2\}$ |
| 8. I <u>shall have been going</u>
there regularly. | : WILL + $\{\emptyset_1\}$ + HAVE +
$\{\emptyset_2\}$ + BE + $\{D_2\}$ +
base + $\{N\}$ |

CHAPTER FOUR

EXPANSION VERSUS NON-EXPANSION IN THE ENGLISH TENSE SYSTEM

(A) Introduction and Survey

Expansion, i.e. the presence of the temporal morpheme $\{N\}$ in verbal clusters, is usually discussed in English under aspect rather than tense. It has already been pointed out, however, that the present study will deal with aspect as far as it is related to temporal reference in language. Hence comes the inclusion of an analysis on expanded forms in a study that is basically aimed at the investigation of tense.

It has already been suggested on page 40 that verbal forms with $\{N\}$ refer to the same temporal positions as their corresponding verbal forms which are without $\{N\}$. This is in fact the reason for putting off until now any discussion of the temporal reference of expanded verbal clusters. Verbal clusters with $\{N\}$ have no characteristic temporal locations of their own. The tense wrote, for example, basically has a similar temporal reference to that of the tense was writing; both took place at a definite location in the past. Likewise, both had been writing and had written refer to a point at pre-past, while would write and would be writing are both temporally located at later-past. Thus,

the temporal fields of pastness and presentness and the temporal locations of earlierness and laterness are basically indicated by the non-expanded verbal forms in English. This is so because these temporal fields and relations are formally represented by $\{D_1\}$, $\{\emptyset_1\}$, $\{D_2\}$ and $\{\emptyset_2+\}$, respectively. None of the above-mentioned temporal morphemes exclusively exists in/^{expanded}verbal clusters, however. Therefore, as tenseemes in complementary distribution, expanded verbal clusters of either tense in English indicate no unique temporal locations of their own. For this very reason it was found justifiable to exclude them from the previous discussions on the temporal distribution of tenseemes. It has nevertheless been indicated earlier in this study that the morpheme $\{N\}$, which is the formal marker of expanded forms, does have some temporal reference of some sort. It is the purpose of this chapter to investigate how expanded forms temporally differ from the non-expanded ones in English. Before presenting the point of view of the present study on the subject, however, it may be worthwhile to examine some related views presented by other writers on the same topic.

Verbal clusters with $\{N\}$ are here called 'expanded', as has already been pointed out. This term is used as such verbal clusters are formally and temporally regarded as 'expansions' of their corresponding non-expanded

counterparts. In the studies reviewed below, however, various other terminologies have been used. Thus expanded clusters may be found under the headings of 'progressive', 'continuous', or 'definite' verbal clusters.

Expanded clusters have been understood by some grammarians to indicate 'continuity' at the time referred to by the verbal cluster. Both Kittredge and Farley,¹ on the one hand, and Nesfield,² on the other, express this point of view in their grammars. Other grammarians, like Poutsma, hold a more or less similar view, but they prefer saying that the essential meaning of expansion is 'duration'.³ Henry Sweet, as well as many others, claims that it is 'incompletion' rather which forms the main characteristic in expanded verbal clusters.⁴

Jespersen puts forward his 'frame theory' to explain the use of expanded verbal clusters in English. In this, he states that "the essential thing is that the action or state denoted by the expanded tense is

¹George Lyman Kittredge and Frank Edgar Farley, An Advanced English Grammar (Boston: Ginn and Co., 1913), p.113.

²J. C. Nesfield, English Grammar Series, 4 vols. (Bombay: Macmillan and Co., 1951).

³H. Poutsma, The Characters of the English Verb and the Expanded Form (Groningen: P. Noordhoff, 1921), p. 47.

⁴Henry Sweet, A New English Grammar (Oxford: The Clarendon Press, 1892-1898), vol. II, p.97.

thought of as a temporal frame encompassing something else which as often as not is to be understood from the whole situation" (Jespersen,p.180). He adds that "the expanded tenses therefore call the attention more specially to time than the simple tenses, which speak of nothing but the action or state itself" (p.180). Jespersen's 'frame' theory mentioned above is adopted by Grattan and Gurrey in their book Our Living Language⁵. They use sentences and diagrams like the following to illustrate how expanded tenseemes function as 'frames' for the non-expanded tenseemes: (p.216)

The band is playing

while I write.

The band is playing

while I am writing.

The band plays

while I am writing.

The band is playing

now.

Allen rightly criticizes the use of dots by Grattan and Gurrey to represent verbs that indicate extended, rather than momentary, actions in such clauses as I write and the band plays in the sentences and diagrams above (Allen, The Verb System, p.37). It is also to be noticed that

⁵J. H. G. Grattan and P. Gurrey (London: Thomas Nelson and Sons, 1925), p.216.

although Jespersen's frame-theory is applicable to many cases of expanded verbal clusters, it is not always so. In the following sentence, for example:

He had been reading before we arrived,
the 'reading' may well have been finished before our
'arrival'. Besides, Jespersen himself points out that
non-expanded verbal forms, rather than the expanded ones,
may sometimes themselves form the frame (Jespersen, p.184).
He gives the following as an example:

"... Rousseau knows he is talking nonsense..."
and says that in this sentence "the frame is in a curious
way implied in the word know" (p.184).

R. L. Allen does not agree with Jespersen's frame-theory. He says that "the expanding of one verb-cluster rather than the other is influenced not so much by the desire to use one Predication or Event as a 'frame' for the other, as it is by the requirements of inclusive and non-inclusive reference" (Allen, The Verb System, p.210). He then goes on to explain what he means by inclusive and non-inclusive reference; he says that "if either Predication expresses an incomplete Event, the verb-cluster in that Predication is expanded" (p.210). Thus Allen seems to agree with Henry Sweet's point of view mentioned earlier; namely that the basic meaning of expansion in English is that of incompleteness. Allen, however, adds that expansion in English is also "a

grammatical device for indicating that a significant interrelationship exists between one event and another, or between one event and an identified time" (p.209). This is certainly a worthwhile point, but Allen does not go any further to tell us more about the nature of this 'significant interrelationship' which he thinks is the essence of expansion in English.

Finally, in his small but impressive book on The English Verb Auxiliaries, Twaddell argues that "the grammatical meaning of be + -ing is that of : 'limited' duration' and that this can be decomposed into limitation and duration, and duration itself into continuation or repetition" (Twaddell, p.7). Which of these various meanings is conveyed in a specific linguistic situation depends on the 'semantics of the lexical verb' (Twaddell, p.7). But he does not go further than that and thus does not sound particularly convincing in leaving the whole issue wide open to speculation by the ~~use~~^{use} of completely semantic criteria in the analysis of expansion in English.

(B) Expansion: A Sign of Simultaneity

It is the point of view of the present study that the morpheme {N} indicates the simultaneity of the action of the verb it is attached to with an explicitly-mentioned point/period of time whenever it is used in an English verbal cluster, e.g.:

I was studying German at 2 o'clock.

I was studying German when he arrived.

I was studying German for some time.

In the three sentences above, the action of 'studying' which is formally represented by the verbal base study is indicated to have occurred in the past simultaneously with a point of time in the first two sentences and with a period of time in the third one. That the action study took place in the past is formally indicated by $\{D_1\}$ in was in all the three sentences above; but that it was simultaneous with some other explicit time is only indicated by the presence of the morpheme $\{N\}$.

The presence of an explicit adverbial of time with expanded tenseemes is indispensable in English. A sentence like the following:

I was reading,
is thus incomplete by itself. An adverbial of time of some sort is required with the expanded tenseme was reading above, e.g.:

I was reading for some time yesterday.

I was reading when he arrived.

Consequently, an adverbial of time may be said to be a prerequisite for the occurrence of $\{N\}$. In other words, an adverbial of time is a non-omissible co-occurent with expanded tenseemes.

The above statement about the non-omissibility

of temporal adverbials with expanded tenseemes needs, however to be modified in two ways. First, the adverbial of time which co-occurs with expanded verbal forms in English might not occur within the boundaries of the sentence containing the expanded tenseme, e.g.:

I was reading. The night was very quiet. The fire was bright. My room was warm and cosy. When suddenly there was a bang outside and I heard a knock at my door.

In the above, the simultaneity indicated by $\{N\}$ is between the action read and the adverbial when suddenly there was... However, the simultaneous action and adverbial of time are not part of the same sentence in the above passage.

Second, the adverbial of time with which a given action is indicated to be simultaneous may be understood, and not explicitly stated in some linguistic situations. This is usually the case when the general context of simultaneity is so clear as to make any specific reference to an explicit adverbial of time unnecessary. Such a case is often found in sentences as:

I am reading.

The temporal adverbial now can be added to the above sentence. This adverb, however, would be redundant since by virtue of $\{N\}$ and $\{\emptyset_1\}$, a simultaneous present is indicated. Moreover, any other specification of

simultaneous present is unnecessary since there can only be one point at simultaneous present, viz. the moment of speech now. An adverbial of time in such sentences as the above may thus be left out without any danger of ambiguity or ungrammaticality.

It is important to notice that this specification of simultaneity by the use of temporal adverbials is more frequently carried out in English by adding adverbial clauses to expanded tenseemes than by adding adverbial phrases or simple adverbs. The addition of a clause will necessarily mean the introduction of another action or state represented by the verbal base in that clause. Thus the simultaneity of the action/state of the base with {N} becomes indirectly associated with that of the verb of the temporal adverbial clause. In:

I was writing when he came,
for example, simultaneity is specified to occur between the two actions represented by the verb bases of the two clauses in the sentence above, viz. between write and come. This interrelationship between two or more actions seems to be a major product of expansion in English. Both Allen, on the one hand, and Kruisinga and Erades, on the other, have pointed out this characteristic in expansion.⁶ In their joint book on English grammar,

⁶Allen's remark in this respect has already been quoted in Section (A) of this chapter.

Kruisinga and Erades state that "... the succession of events... is expressed by simple forms, and ... the verbal ing is used as soon as two events are thought of as connected."⁷ Like Allen, however, they do not tell us about the sort of 'connection' which is indicated between events by the use of expansion.

Simultaneity between an action and a point/period of time or between one action and another can rarely mean complete correspondence, however. To start with, there can never be complete correspondence between an action and a point of time since the former necessarily takes longer time to happen than just a point of time, which has no temporal extension. Thus in a sentence like the following:

I shall be writing at 2 p.m. tomorrow,
the action write necessarily extends on both sides of the point 2 p.m. This indeed is a case where Jespersen's frame-theory is applicable.

Understandably enough, an action can fully correspond to a period, rather than a point, of time. This may be seen from the following example:

I was studying French for two hours yesterday.

In cases where two or more actions are interrelated by the use of expansion, simultaneity is usually only partial. For a full simultaneity between two actions, both actions have to appear in the form of expanded

⁷ Accidence and Syntax, vol. I, 8th edition (Groningen: P. Noordhoff, 1953), p. 255.

verbal clusters, as in:

They were singing and dancing all last night.

It is common therefore to find various other types of simultaneity. One of the most common types is 'medial' simultaneity. This type of simultaneity is said to exist when the non-expanded action corresponds to the expanded one in the course of its occurrence. This type is again representative of Jespersen's frame-theory, viz. that the action of the expanded form functions as a frame for that of the non-expanded one. An example of medial simultaneity can be found in the following sentences:

I met her while I was crossing the Atlantic.

As she was washing the dishes, she dropped one.

I was writing when the telephone rang.

In the case of sentences with as and while like the first two sentences above, the same kind of simultaneity can still be indicated even after deleting the morpheme of simultaneity $\{N\}$. This is because as and while themselves are simultaneity-indicators. Consequently, the presence of expanded forms with such adverbials is redundant, though acceptable.

Another common type of simultaneity is the 'terminal' one, in which the point of correspondence^{between} two actions or between an action and a point of time falls towards the end of the duration of the expanded verbal cluster. This type of simultaneity can be found

in the following sentences, for example:

I had been reading for two hours when you called
last night.

He has been living here for twenty years now.

Next term, I shall have been learning German for
a year.

As may be noticed from the three sentences above, terminal simultaneity is usually indicated in expanded verbal clusters by a combination of the earlier morpheme $\{D_2\}$ plus the morpheme of simultaneity $\{N\}$.

A less common type of simultaneity is the 'initial' one. Here the point of correspondence falls somewhere at the beginning of the occurrence of the action denoted by the expanded tenseme, e.g.:

I will be staying in Glasgow for the next two years.
Initial simultaneity is formally indicated by the presence of both $\{N\}$ plus $\{\emptyset_2+\}$ in expanded tensemes.

It has already been pointed out that in such sentences as the following:

He had been reading it before we arrived,
the action read might well have been finished before the occurrence of the second action arrive. Thus the morpheme $\{N\}$ seems to lose its temporal value of simultaneity in such cases as the above since there is no clear simultaneity between the two actions read and arrive. This is in fact the case whenever $\{N\}$ co-occurs with either of

the temporal conjunctions after or before. In cases of such co-occurrence, there will be a sharp contrast between the temporal values of $\{N\}$, on the one hand, and before/after, on the other. The former indicates simultaneity whereas the latter two indicate sequence. It is obvious that the temporal notions of sequence and simultaneity are incompatible. Hence one of the notions must inevitably dominate and cancel the other if sentences such as the above one are to remain meaningful.

It has already been pointed out on page 135 that in all such cases of tension and contrast between a symbolic morpheme and a lexical one, it has been found that the lexical morpheme always dominates. Consequently, in sentences like the one above, the relational temporal value of the lexical morpheme before will cancel the simultaneity of the symbolic morpheme $\{N\}$.⁸ This means that the above sentence will indicate sequence rather than simultaneity.

⁸This, however, does not cancel the sense of duration embedded in $\{N\}$; this is retained. The difference between:

He had been reading it before we arrived,
and

He had read it before we arrived,
may thus be accounted for.

(C) Binary Opposition in Expansion

R. L. Allen claims that inclusive aspect, as represented by non-expanded tenseemes, is the marked member of contrastive aspect in English (The Verb System, p.219). He adds that "intrusive aspect, signaled by expanded verb forms, is 'non-committal with respect to completion or non-completion' (p.219). But surely Allen cannot claim to base this classification on formal criteria since it is the expanded verbal clusters in English that are formally marked by the presence of {N} whereas the non-expanded verbal forms lack it. In fact, Allen himself finds it difficult to apply his classification of aspect satisfactorily in many cases of expanded verbal clusters. He thus contradicts his above-mentioned classification when he says elsewhere in his book that "in the present perfect tenses, the expanded form, rather than the non-expanded form, appears to be the 'marked form'" (p.205).

It is the point of view held here that expanded verbal clusters are the marked members of the opposition of expanded vs. non-expanded tenseemes in English. This conclusion is primarily drawn on formal bases. Even notionally, however, the above conclusion is justifiable since, as has already^{been} mentioned, the formal marker of expanded forms, viz. {N}, indicates simultaneity with something else. An expanded verbal form, it has also

been already said, can be simultaneous with another action or point of time which falls in the beginning, in the middle, or at the end of the period of occurrence of the action or state represented by that expanded verbal cluster. These different possible types of simultaneity, particularly medial simultaneity, suggest that some continuity or duration is indicated by the expanded verbal forms in English. Thus expanded verbal forms seem to suggest duration in themselves and simultaneity with something else. It may be necessary to point out here that Paul Roberts', as well Curme's and Allen's, remark that non-expanded verbal clusters can also express duration by co-occurring with such phrases as on and on is beside the point since this is easily understandable in the frame of the general phenomenon of redundancy in English. That all the underlined tenseemes in the following sentences suggest duration does in fact prove rather than disprove that the duration is actually basically indicated in English by expanded verbal forms:

He read on and on.

He read for two hours yesterday.

He was reading for some time.

He was reading when I entered.

The last example in the sentences above clearly shows that duration is a product of expansion. When expansion by $\{N\}$ is omitted in the first two sentences, the notion

of duration can only be retained by the addition of extra phrases with the meaning of duration explicitly indicated by them. The third sentence is an example of acceptable redundancy. Thus, duration cannot normally be indicated by non-expanded tenseemes in English. It is not the verb read in the first two sentences above that suggests duration; it is rather the whole predication read on and on and read for two hours, respectively. On the other hand, was reading in the last sentence above suggests duration on its own.

Therefore, it seems justifiable to conclude that both formally and temporally, expanded verbal forms are the marked members whereas non-expanded verbal clusters are the unmarked members of the binary opposition of expansion vs. non-expansion in English. This conclusion is more in line with the emphasis of modern linguistics to base notional classifications on formal criteria whenever possible.

(D) Where Expansion is Avoided in English

In relation to expansion in English, Jespersen distinguishes two classes, or in fact two aspects, of verbs: conclusive and non-conclusive (Jespersen, p.92). The distinction is mainly based on the semantics of verbs. In conclusive verbs, Jespersen explains, "the action is either confined to one single moment, e.g.

catch, surprise, awake, leave, end, kill, or implies a final aim, e.g. make, bring about, adorn, construct, beat" (p.92). He then says that non-conclusive verbs, on the other hand, are "verbs denoting feelings, states of mind, etc.: the activity, if any such is implied, is not begun in order to be finished" (p.93). As examples of such non-conclusive verbs, Jespersen gives the following: love, hate, praise, blame, see, hear. Though mainly based on semantic criteria, Jespersen's classification does also make use of some formal criteria, as may be seen from the following distinguishing principle suggested by him: When the second participle, i.e. the past participle, of conclusive verbs is used as an adjunct before a noun, it is then used as a perfect participle, i.e. to indicate the result of a past action. Conversely, when the second participle of non-conclusive verbs is thus used, it has no temporal value whatsoever, i.e. it tells nothing about the time of the action (Jespersen, p.92). Jespersen gives the following phrases to represent the former type of adjuncts: a paid bill, a conquered town, a lost battle, an acquired wealth, a captured enemy, his collected works, armed men, rejected articles, married people, a spoilt child, a reserved seat, a trained nurse (p.92). For the latter variety of adjuncts, he gives the following examples: an honoured colleague, an admired friend, a despised scoundrel, a merited

rebuke, a reserved expression on his face, the observed of all observers (p.93).

Later in his book, Jespersen applies his above-mentioned classification to the question of expansion in English by pointing out that "verbs which express psychological states [i.e. non-conclusive verbs] such as feel, know, like, love, hate, etc., are generally used in the simple [i.e. non-expanded] tenses only" (p.221). However, Jespersen hurries to add that "the rule ... is not absolute" (p.221). English offers many examples in which some or all of the verbs just mentioned by Jespersen are used in expanded forms, e.g.:

How are you feeling today?

How is he liking his new job?

Moreover, not all verbs in English have second participles which can be used as adjuncts before nouns. Thus Jespersen's classification does not seem applicable in the case of such verbs as sit, stand, and walk since *a sat boy, *a stood man, and *a walked garden are ungrammatical English phrases.

Martin Joos uses the term 'private verbs' to refer to Jespersen's non-conclusive verbs just mentioned above.⁹ According to Joos, private verbs do not permit

⁹Martin Joos, English Language and Linguistics, Mimeographed edition (Beograd: Institute for Experimental Phonetics, 1958), p.82.

of expansion in English; they are 'private' in the sense that they refer to personal feelings or emotions that only the person concerned can tell about. Joos suggests a special linguistic test which is aimed at sorting out all the private verbs in English; namely, that none of the private verbs can refer to the future time when used in its present form (pp.83-84). Thus the following would be ungrammatical:

- * I understand the lesson tomorrow.
- * I feel it next week.
- * She likes it later.

Joos' treatment of private verbs as a phenomenon not subject to expansion in English is good but inadequate. Like Jespersen, Joos is still unable to account for the occurrence of many of the 'private' verbs in expanded forms in English, as has just been shown with some of such verbs. Moreover, Joos' category of 'private' verbs includes many other verbs that cannot be strictly called 'private' since they do not refer to any personal feelings or emotions. Some of such verbs appear in the following sentences:

Iraq borders on Turkey in the north.

It seems that they are incompatible. ↓

Thus it appears that any treatment which tries to explain the phenomenon of non-expandability in English by just referring to verbs as such is doomed to fail.

This is so because English, as has just been said, offers many examples in which the so-called non-expandable verbs do appear in expanded forms. The alternative approach to the problem seems to be to look for larger linguistic environments in which verbs occur and try to sort out those environments which permit of no expansion whenever they exist in English.

The only treatment known to the present writer which deals with verbs that resist expansion in terms larger than such verbs themselves is that of R. L. Allen in his book on The Verb System of Present-Day American English. In his treatment, Allen considers the whole predicate, and not only the verb, as the conditioning factor of non-expandability. In this respect he says that "it is the Predication in each case which resists such expansion; most if not all of the verbs appearing in these Predications occur in expanded form in other kinds of Predications" (p.221). Some predications, Allen adds, are 'suffusive' in the sense that they temporally refer to the whole time which is mentioned or implied. "For this reason, such a Predication is always inclusive, and is therefore always expressed by a Predication containing a non-expanded verb-cluster" (p.223). He then gives the following two sentences in which the first contains a 'non-bounded', i.e. inclusive or suffusive, predication in the sense that "it refers to an Event

with no foreseeable termination" (p.223). The second sentence, on the other hand, contains a predication which is 'bounded' or 'profusive' in the sense that it refers to a limited period of time only, rather than to all time: (p.223)

Hamadan lies at the foot of Mt. Alvand.

My hat is lying on the table in the hall.

The same verb is used in the above two sentences but the linguistic environments, namely the predications, in which they are used are different. In relation to the second sentence above, Allen comments that "my hat does not always lie on the table in the hall - it has probably been put there recently - and will probably not stay there indefinitely" (p.223). On the other hand, the following sentences given by Calver and Joos, and quoted by Allen, all indicate suffusive and non-bounded events and consequently their verb-clusters appear in non-expanded forms: (p.224)

Two plus two equals four.

Roses smell.

He plays the violin.

The sun rises in the east.

Italy borders upon France.

Haste makes waste.

This shirt buttons up at the back,

Suffusive predications, using Allen's terminology, thus refer to the whole time period, if any is mentioned in a given sentence, or extend infinitely on both sides of the given point of reference when no time period is mentioned. It has already been said that expanded forms in English indicate the duration or the continuity of their events besides their simultaneity with something else. An event which is said to be continuous at a certain moment cannot consequently be complete at that same point of time. Thus incompletion is a logical consequence of 'durativeness' and continuity in expanded forms. As suffusive predications do not refer to any specific moment but rather to an ⁿindefinite time, they cannot consequently be found in expanded forms in English. This is so because at any specific point in the continuous occurrence of an action, only a part or a slice of that action can be viewed or focused upon; whereas when no specific point is emphasized, i.e. when time is non-bounded, the whole action is usually considered. This distinction between the partial versus the whole view of events is basic to the understanding of profusive versus suffusive predications in English.

The situations which require the presence of suffusive predications, with non-expanded tenseemes, are of many types in English. The following is a brief survey of such situations:

1. Non-bounded Predications

In this environment appear mainly verbs that are called 'private' and 'relational' by Martin Joos (Joos, pp.83-84). Such verbs, according to Joos, are of three kinds (pp. 84-85): (i) verbs which "specify relations between the milieu and the person in such a way as to characterize the person's internal condition," as in

Charles likes sweets;

(ii) verbs which show "some relation between person and thing, but the thing is what is considered as characterized by the relation," as in

This soup tastes really delicious;

and (iii) verbs which indicate relations between things, as in

The Euphrates and the Tigris flow in Iraq.

Also included under this category of non-bounded predications are all other kinds of predications in which events or actions are viewed as wholes or in which no beginning or end is defined, such as in:

I see a lot of smoke now.

I also hear sounds of explosions.

2. Asseverative Predications

It is Martin Joos again who first used the term 'asseverative' to refer to a special kind of non-expanded verbs which appear in predications, where, to quote

Hatcher, "the 'activity' predicated has no existence apart from the predication, but is identical with it."¹⁰ Joos points out that in such predications, verbs always occur in the form of ^{the} simple-present and with first-person pronouns as subjects (p.87). The following are some examples of asseverative predications given by Joos and Hatcher:

I pronounce you man and wife.

I declare the meeting adjourned.

We find the prisoner guilty.

I deny that he is guilty.

I thank you.

3. Demonstrations and Stage Directions

The use of non-expanded, rather than expanded, verbal clusters in practical demonstrations and stage directions is easily understood when it is remembered that non-expanded predications refer to whole actions or states. In both stage directions and demonstrations, events are usually considered as whole units, each complete by itself and unrelated to the others. Even in such cases, however, the expanded tenseemes may also be used whenever it is found necessary to show that an event is simultaneous with another one. In the following extract

¹⁰Anna Granville Hatcher, "The Use of the Progressive Form in English: A New Approach", Language, XXVII (July-August, 1961), p.267.

from a passage of O'Neill's Strange Interlude: (Allen, The Verb System, p.187)

NINA (Nodding slowly): I know.

MARSDEN (Bends down, pats her head with trembling hands, soothes her with uncertain trembling words):

There - there - ...

the writer indicates by virtue of {N} in nodding that the sentence I know is to be uttered simultaneously with Nina's slow nodding. Each of the actions carried out by Marsden, on the other hand, is a whole unit by itself independent of all other actions; the bending, the patting, and the utterance of the soothing words are treated here as separate events not indicated for any sort of simultaneity with each other.

Sports commentators on the radio and people demonstrating a process such as an experiment or a cooking recipe usually use non-expanded verbs in the form of simple-present tenseemes. This again may be explained in that each event reported is a whole, an independent step in the series that make up the game, the experiment, or the dish. The use of simple, non-expanded verbs also tends to make the progression of reporting sound more swift and rapid; something which is particularly suitable in reporting fast-moving games, such as a football match.

4. Reporting and Reference

Suffusive predications in the form of non-expanded verb-clusters are also used when reporting or referring to information from a printed matter. Thus we may have the following:

Wordsworth preaches that Nature is the best teacher.

Both the Bible and the Quran tell of the story of
Creation.

The verbs preaches and tell above occur in predications that are suffusive in the sense that the former predication is attributable to Wordsworth for an unlimited period of time, and so is the telling of the story of the Creation is also non-bounded. Both verbs, however, may be found in expanded forms in other predications that are not suffusive.

CHAPTER FIVE
A TRANSFORMATIONAL DESCRIPTION OF THE
ENGLISH TENSE SYSTEM

(A) Introduction

Chomsky, the pioneer of transformational theory, defines his grammar as "a system of rules that in some explicit and well-defined way assigns structural descriptions to sentences" (Aspects, p.8). In his recent book on Chomsky, John Lyons points out that many grammarians hold that "transformational grammar is the best theory so far developed for the systematic description and explanation of the structure of human language."¹ Lyons concludes his book by stating that "the 'Chomskyan revolution' cannot but be successful" (p.116). Thus it seems worthwhile to investigate how the question of tense and time in language can be studied and analyzed in the light of transformational grammar.

Many existing treatments of the subject of tense in English have already been reviewed in the second chapter of Part Two in the present study. It has been concluded, however, that those treatments were all to some extent inadequate. There is not a single transformational work known to the present writer which presents

¹J. Lyons, Chomsky (London: Wm. Collins And Co. Ltd., 1970), p.11.

a detailed and adequate analysis of tense in English. Nevertheless, the transformational approach to the study of various other linguistic phenomena has proved productive and promising. This chapter is hence an attempt to outline some transformational techniques and formulae that can give us a better understanding of tense and provide a more comprehensive analysis of this linguistic phenomenon than what already exists.

(B) Deep versus Surface Tense
in English

In Aspects of the Theory of Syntax, Chomsky states that for each sentence there exist "a deep structure that determines its semantic interpretation and a surface structure that determines its phonetic interpretation" (p.16). More elaborately, deep structure is viewed in modern transformational theory as

a level of linguistic analysis where (i) basic grammatical relations between fundamental grammatical categories are defined; (ii) selectional restrictions and co-occurrence relations are stated; (iii) appropriate grammatical categories receive lexical representations; (iv) inputs to transformational rules are provided.²

The role of the transformational component of grammar is that of relating deep structures to surface structures.

²Tomasz P. Krzesowski, "Equivalence, congruence and deep structure," Papers in Contrastive Linguistics, ed. Gerhard Nickel (Cambridge: The University Press, 1971), p.38.

From the above it becomes evident that, according to Chomsky, semantic interpretation has to be based on the deep structures of sentences. In other words, all semantically-significant features of sentences are to be somehow represented in their deep structures. Now, it is obvious that both tense and aspect in English are temporally, i.e. semantically, significant. Hence, they should be represented in the deep structure of English sentences. The question however is: how are tense and aspect represented in the deep structure of English sentences?

Concerning tense, let us first consider the following ungrammatical string:

*He write it yesterday

The above string is ungrammatical since its verb only appears in the base form uninflected for tense. Yet the string is meaningful and its temporal reference is unambiguous. How can we explain the 'meaningfulness' of the string? The only tenable explanation, it seems, is one which assumes that the temporal reference of English sentences is not associated primarily with tense inflections but rather with adverbials of time. What is relevant to temporal interpretation in the above string is the temporal adverbial yesterday which makes redundant any temporally-similar tense inflection. The past-tense temporal marker $\{D_1\}$ in wrote, for example, may thus be

viewed as nothing but a surface-structure representation of a temporal adverbial representing pastness in the deep structure. It is therefore postulated here that tense in English is represented by temporal adverbials in deep structures and that all English sentences have underlying adverbials of time in their deep structures.

(C) Deep versus Surface Aspect

To determine the status of aspect in deep structure, let us examine the following:

* He writes the letter already

This string is also ungrammatical though still meaningful in that it unambiguously refers to a time earlier than the moment of speech. It is the presence of the temporal adverbial already which makes the above string temporally refer to a time which precedes the present. Semantically, the above ungrammatical string possesses the same temporal information as that of its grammatical version:

He has written the letter,
with its earlier aspectual marker $\{D_2\}$ in written. This again prompts us to conclude that aspectual markers like $\{D_2\}$, $\{\emptyset_2\}$, $\{\emptyset_2+\}$, and $\{N\}$ are only surface realizations of relational, viz. depicting temporal relations, temporal adverbials in the deep structure of English sentences. It is therefore hypothesized here that all English sentences which have any of the above-mentioned

four aspectual markers in their surface structures must possess underlying relational temporal adverbials in their deep structures.

The realization of aspect by relational temporal adverbials in the deep structure reflects the strong syntactic and semantic relationships between aspectual markers and such adverbials. Syntactically, both share the function of modifying verbs and, semantically, both may indicate identical temporal values. This special relationship between aspect and adverbials in English may be further demonstrated by the temporal equivalence of such structures as the following:

I shall go. (Later Aspect $\{\emptyset_2+\}$)

I go later. (Adverbial of 'Later' Time)

But not, for example, 'I go' for the second sentence without somewhat changing the meaning of the sentence. Similarly, the adverbial earlier indicates the same temporal value of the earlier aspectual marker $\{D_2\}$ in such examples as:

I had gone. (Earlier Aspect $\{D_2\}$)

I went earlier. (Adverbial of 'Earlier' Time)

This phenomenon of substitutability also explains why simple-present tenseemes can in certain linguistic environments indicate later-present reference, i.e. futurity, without the presence of the later aspectual marker $\{\emptyset_2+\}$. This may be seen in such sentences as:

He leaves later.

In the sentence above, the temporal function of the aspectual marker $\{\emptyset_2+\}$, viz. that of indicating 'lateness', is performed instead by the temporal adverbial later. The same temporal function can similarly be achieved by the temporal counterparts of the adverbial later, such as tomorrow, next week, etc. as in:

He leaves next week,

in which the verb plus the adverbial indicate the futurity which may alternatively be indicated by the verb plus later aspect, as in:

He will leave.

(D) Formalization of Tense and Aspectual Rules in Deep Structure

The central difference between Chomsky's analysis of the verbal phrase and that which is presented here lies in the Auxiliary expansion rule. Chomsky incorporates all tense and aspectual markers, including carriers like have and be, into the phrase structure or the base component of English grammar.³ In other words, tense and aspectual markers belong to the deep structure in Chomsky's grammar of English. It has been argued above however that such a description seems untenable and that a more

³See review of Chomsky's works in Chapter Two of Part Two.

feasible analysis would be one that regards tense and aspectual markers as surface-structure phenomena represented by temporal adverbials in deep structure. It has consequently been postulated above that in the deep structure of simple tenseemes in English, Tense Temporal Adverbials (henceforth TTA) occur whereas one TTA and one or more Aspect Temporal Adverbials (henceforth ATA) appear in the deep structures of compound and complex tenseemes. The following rule may therefore be formulated for 'Auxiliary' in English:

$$\text{Aux} \longrightarrow \text{TTA} + (\text{ATA})_n$$

Tense Temporal Adverbials can only be of two kinds in English. Hence, the following rule is to follow the above one:

$$\text{TTA} \longrightarrow \left\{ \begin{array}{l} \text{in the past} \\ \text{at present} \end{array} \right\}$$

The occurrence of Aspectual Adverbials is optional in that they do not occur in all English tenseemes; compound and complex tenseemes have them but simple tenseemes do not. This option is shown in the Auxiliary rule above by the inclusion of ATA in parentheses. The letter n in the Auxiliary rule represents the number of the occurrences of ATAs in a given tenseeme in English. The number, however, cannot exceed three in English. This fact may be symbolically shown by adding (~~3~~3) to the

Auxiliary rule above. *Aspectual Temporal Adverbials in English tenseemes may be any one or more of the following relational adverbials of time: earlier, non-earlier, later, and simultaneously. However, the order sequence of ATAs is fixed in that when more than one of them occur, not every sequential arrangement is acceptable in English. To show the four varieties of ATAs as well as their permissible sequence order, the following context-sensitive rule is formulated:

$$\text{ATA} \longrightarrow \left\{ \begin{array}{l} \left\{ \begin{array}{l} \text{non-earlier} \\ \text{later} \end{array} \right\} / \text{---} + (\text{ATA}) + (\text{ATA}) \\ \text{earlier} / (\text{ATA}) + \text{---} + (\text{ATA}) \\ \text{simultaneously} / (\text{ATA}) + (\text{ATA}) + \text{---} \end{array} \right\}$$

The above rule shows that in the case of any English tenseme which has the maximum number of three aspectual markers, as in:

By six o'clock, I shall have been working for eight hours today,

the sequence arrangement will be:

later aspect + earlier aspect + simultaneous aspect.

In the surface structure of the above tenseme, viz. shall have been working, later aspect is carried by shall; earlier aspect by been; and simultaneous aspect by working. The above aspectual rule also shows that both non-earlier and later aspects always precede the other varieties of aspect and that these two aspects never

co-occur in any English tenseme, viz. only one of them can occur at a time.

According to the above description of deep tense and aspect in English tenseemes, simple tenseemes, on the one hand, and both compound and complex ones, on the other, cannot be correctly considered as having identical underlying P-markers. No tenseme can therefore be said to constitute the kernel or the source from which other tenseemes have been derived. Yet, the obvious intuitive relatedness among the tenseemes of either tense in English may be accounted for by the similarity, though not the identity, of their P-markers.⁴

(E) Transformational Rules of
Tense and Aspect⁵

To account for the temporal equivalence between such sentences as in the following two pairs:

1.(a) He will leave tomorrow,

(b) He leaves tomorrow,

2.(a) I met him before he had written the letter,

(b) I met him before he wrote the letter,

an optional transformational rule which allows for the

⁴Katz and Postal argue along these lines for similar related linguistic phenomena, (see Integrated, p. 118).

⁵Only rules completely formulated by the present writer are mentioned here. Other rules necessary for the transformational machinery of grammar but which are adapted and/or adopted from other writers are given in the Transformational Outline at the end of this chapter.

deletion of redundant aspectual markers may be formulated. Aspectual markers, as has been pointed out earlier, may be made redundant in the surface structure of English tenseemes by the presence of temporally-similar adverbials. In sentence (1.a) above, for example, the adverbial tomorrow with its inherent temporal 'lateness' makes redundant the later aspectual marker $\{\emptyset_2+\}$ in will leave. So does the adverbial before in (2.a) above make redundant the presence of the earlier aspectual marker in written. Hence, sentences (1.b) and (2.b) are redundancy-free versions of (1.a) and (2.a) respectively. The optional deletion rule of redundant aspectual markers may take the following form in grammar:

T-del : NP + TTA + ATA + v + X + Adv-t
(ATA)

↔ NP + TTA + v + X + Adv-t

(When ATA and Adv-t have the same
relational temporal value)

It has already been shown in the rewriting of the Auxiliary above that ATAs always follow TTAs in the deep structure of English tenseemes and that whereas only one TTA may appear in any English tenseme at any one time, up to three ATAs can occur simultaneously. It has also been pointed out in chapters Three and Four of Part Two that in the surface structures of tenseemes, it is a characteristic of English that a verbal base

may not carry more than one temporal marker at a time. Thus in compound and complex tenseemes, the last or right-most aspectual marker occupies the verbal base leaving other markers to be carried by special lexemes particularly used as tense and aspect carriers. There are four varieties of such carriers in English. The selection of a specific variety for a 'floating' tense or aspect is determined by the directly-following aspect. Both the various types of carriers in English and the selection restrictions imposed on them may be stated by the following transformational rule:⁶

$$\text{Tcar: } \left\{ \begin{array}{l} \text{earlier} \\ \text{later} \\ \text{simultaneously} \\ \text{non-earlier} \end{array} \right\} \longrightarrow \left\{ \begin{array}{l} \text{HAVE} + \text{earlier} \\ \text{WILL} + \text{non-earlier} \\ \text{BE} + \text{simultaneously} \\ \text{Modal} + \text{non-earlier} \end{array} \right\}$$

(where modal is any modal verb except WILL)

It may be seen from the above rule that WILL, as distinct from other modals, has the capacity to narrow down the temporal reference of the non-earlier aspectual marker $\{\emptyset_2\}$ to make it specifically refer to later-time. This, as has been mentioned in Chapter Three, is due to the relational temporal value of 'lateness' embedded in will and shall. Yet, it should be emphasized here that this does not mean that WILL introduces any new temporal

⁶See the following section for examples on the application of this as well as other rules.

value to the 'non-earlierness' of $\{\emptyset_2\}$ since later-time is nothing but a segment of the more comprehensive non-earlier time of $\{\emptyset_2\}$. The role of WILL may be consequently viewed as that of the specification or topicalization of 'laterness' within the wider non-earlier temporal span represented by $\{\emptyset_2\}$.

(F) Applications⁷

(1) He goes tomorrow.

$S \rightarrow NP + VP$

$\rightarrow NP + TTA + ATA + v + Adv_t$

$\rightarrow NP + at\ present + later + v + Adv_t$

$T_{del} \rightarrow NP + at\ present + v + Adv_t$

$T_{af} \rightarrow NP + v + at\ present + Adv_t$

$\rightarrow he + \emptyset_1 + go + tomorrow$

$\rightarrow he \quad \quad goes \quad \quad tomorrow$

(2) He will leave.

$\rightarrow NP + TTA + ATA + v$

$\rightarrow NP + at\ present + later + v$

$T_{car} \rightarrow NP + at\ present + WILL + non-earlier + v$

$T_{af} \rightarrow NP + WILL + at\ present + v + non-earlier$

$\rightarrow he + WILL + \emptyset_1 + leave + \emptyset_2$

$\rightarrow he \quad \quad will \quad \quad \quad leave$

⁷For the full form of all rules applied in this section, see the Transformational Outline at the end of this chapter.

(3) I have written the letter.

→ NP + TTA + ATA + v + X

→ NP + at present + earlier + v + X

Tcar → NP + at present + HAVE + earlier + v + X

Taf → NP + HAVE + at present + v + earlier + X

→ I + HAVE + \emptyset_1 + write + D₂ + the letter

→ I have written the letter

(4) I shall have gone there by next week.

→ NP + TTA + ATA₁ + ATA₂ + v + X + Advt

→ NP + at present + later + earlier + v + X +
Advt

Tcar → NP + at present + WILL + non-earlier +

HAVE + earlier + v + X + Advt

Taf → NP + WILL + at present + HAVE + non-earlier +
v + earlier + X + Advt

→ I + WILL + \emptyset_1 + HAVE + \emptyset_2 + go + D₂ + there +
by next week

→ I shall have gone there by next week

(5) I shall have been working on it for some time.

→ NP + TTA + ATA₁ + ATA₂ + ATA₃ + v + X + Advt

→ NP + at present + later + earlier +

simultaneously + v + X + Advt

Tcar → NP + at present + WILL + non-earlier +

HAVE + earlier + BE + simultaneously +

v + X + Advt

Taf → NP + WILL + at present + HAVE + non-earlier +
 BE + earlier + v + simultaneously + X + Advt
 → I + WILL + \emptyset_1 + HAVE + \emptyset_2 + BE + D₂ + work +
 N + on it + for some time
 → I shall have been working on it for
 some time

(6) I was not working yesterday.

I was working yesterday. (Non-negative)

→ NP + TTA + ATA + v + Advt
 → NP + in the past + simultaneously + v + Advt
 Tcar → NP + in the past + BE + simultaneously + v +
 Advt
 Tneg → NP + in the past + BE + not + simultaneously +
 v + Advt
 Taf → NP + BE + in the past + not + v + simulta-
 neously + Advt
 → I + BE + D₁ + not + work + N + yesterday
 → I was not working yesterday

(7) He had been treated badly.

Somebody had treated him badly. (Non-passive)

→ NP + TTA + ATA + v + X
 → NP + in the past + earlier + v + X
 Tpas → NP + in the past + earlier + be + part +
 sive
 v + X
 Tcar → NP + in the past + HAVE + earlier + be +
 part + v + X

Taf \longrightarrow NP + HAVE + in the past + be + earlier +
v + part + X

\longrightarrow he + HAVE + D₁ + be + D₂ + treat + part + X

\longrightarrow he had been treated badly

(8) He HAS gone home.

He has gone home. (Non-affirmative)

\longrightarrow NP + TTA + ATA + v + X

\longrightarrow NP + at present + earlier + v + X

Tcar \longrightarrow NP + at present + HAVE + earlier + v + X

Taffirm \longrightarrow NP + at present + HAVE + A + earlier + v + X

Taf \longrightarrow NP + HAVE + at present + A + v + earlier + X

\longrightarrow he + HAVE + \emptyset_1 + A + go + D₂ + home

\longrightarrow he has gone home

(G) An Outline of
a Transformational Analysis of
the English Verb⁸

(1) Phrase Structure Rules

Σ : # Sentence #

F : 1. S \longrightarrow NP + VP

⁸Only some of the rules in this Outline are fully formulated by the present writer. These are Aux, TTA, ATA, Tdel and Tcar as well as most morphophonemic rules. Some other rules, like verbal, Taf, Tneg, Taffirm, T-passive, are modified versions of already existing rules, whereas other rules are mainly quoted from Paul Roberts' English Syntax, op. cit., pp. 395-402.

2. VP \longrightarrow Aux + $\left\{ \begin{array}{l} \text{be} + \left\{ \begin{array}{l} \text{substantive} \\ \text{Adv-p} \end{array} \right\} \\ \text{verbal} \end{array} \right\}$

3. Aux \longrightarrow TTA + (ATA)_n
(where $n \neq 3$)

4. TTA \longrightarrow $\left\{ \begin{array}{l} \text{in the past} \\ \text{at present} \end{array} \right\}$

5. ATA \longrightarrow $\left\{ \begin{array}{l} \left\{ \begin{array}{l} \text{non-earlier} \\ \text{later} \end{array} \right\} / \text{---} + (\text{ATA}) + (\text{ATA}) \\ \text{earlier} / (\text{ATA}) + \text{---} + (\text{ATA}) \\ \text{simultaneously} / (\text{ATA}) + (\text{ATA}) + \text{---} \end{array} \right\}$

6. substantive \longrightarrow $\left\{ \begin{array}{l} \text{NP} \\ (\text{Int}) + \text{Adj} \end{array} \right\}$

7. verbal \longrightarrow $\left\{ \begin{array}{l} \text{VI} \\ \text{VT} + \text{NP} \\ \text{Vb} + \text{substantive} \\ \text{Vs} + \text{Adj} \\ \text{Vh} + \text{NP} \end{array} \right\} + (\text{Adv-t})$

8. Adv-t \longrightarrow yesterday, next week, in the morning,

...

9. NP \longrightarrow John, the boy, he, both of them, ...

10. Adv-p \longrightarrow there, downstairs, in the house, ...

11. Int \longrightarrow very, rather, pretty, ...

12. Adj \longrightarrow good, sad, beautiful, ...

13. Vb \longrightarrow become, remain, ...

14. Vs \longrightarrow seem, look, taste, ...

15. Vh \longrightarrow have, cost, weigh, ...

(ii) Transformational Structure Rules (with some specific examples)

16. Tdel:
(ATA)
NP + TTA + ATA + v + X + Advt
→ NP + TTA + v + X + Advt
(when ATA and Advt have the
same relational temporal value)

17. Tdo: tense → do + tense

18. Tpas- NP1 + TTA + (ATA) + VT + NP2
sive:
→ NP2 + TTA + (ATA) + be + part +
VT + (by + NP1)⁹

19. Tdel:¹⁰ NP + relative pronoun + TTA + be + X
→ NP + X

the boy + who + is + from Glasgow

the boy + from Glasgow"

20. Tdel-¹¹ NP + relative pronoun + TTA + v + X
ing
→ NP + ing + v + X

people + who + own money

people owning money

⁹This rule has been modified and made obligatory in later transformational studies. However, it is left here in its earlier form since it is not directly relevant to the discussion of tense and aspect.

¹⁰This transformational rule helps to explain the structure of minor tenseemes in the form of verbid ~~cl~~ clusters; namely, that they are originally verbex clusters with tense having been deleted by a later transformational rule of T-del type.

¹¹Same as above footnote

21. T-nom-¹²
abs: NP + TTA + $\left\{ \begin{smallmatrix} \text{be} \\ \text{verbal} \end{smallmatrix} \right\} + X$

→ NP + ing + $\left\{ \begin{smallmatrix} \text{be} \\ \text{verbal} \end{smallmatrix} \right\} + X$

The novel is interesting

the novel being interesting

22. T-for-¹³
to : Matrix : it + TTA + (ATA) + be + Adj(1) +
Comp(2)

Insert : NP(3) + TTA + (ATA)(4) + v + X(5)

Result → 1 + for + 3 + to + 5

it + was + easy + Comp

Bob + in the past + break the record

It was easy for Bob to break the
record.

23. T-pos-¹⁴
ing: Matrix : X(1) + NP(2) + Y(3)
Insert : NP1(4) + TTA + (ATA)(5) +
v + X(6)

Result → 1 + 4 + Pos + ing + 6 + 3

I was surprised by + John

John + in the past + ask to leave
so early

I was surprised by John's asking
to leave so early.

¹²This rule also produces verbids or minor tense-
semes. It also shows that minor tenseemes, like major
tenseemes, have Tense Temporal Adverbials in their deep
structures.

¹³Same as above footnote.

¹⁴Same as above footnote.

24. Tcar: $\left\{ \begin{array}{l} \text{earlier} \\ \text{later} \\ \text{simultaneously} \\ \text{non-earlier} \end{array} \right\} \longrightarrow \left\{ \begin{array}{l} \text{HAVE} + \text{earlier} \\ \text{WILL} + \text{non-earlier} \\ \text{BE} + \text{simultaneously} \\ \text{Modal} + \text{non-earlier} \end{array} \right\}$
 (Where Modal is any modal verb except WILL)

25. Tneg:¹⁵NP $\left\{ \begin{array}{l} \text{TTA} + \text{carrier} \\ \text{TTA} + \text{v} \end{array} \right\} \text{X} \longrightarrow \text{NP} \left\{ \begin{array}{l} \text{TTA} + \text{car} + \text{not} \\ \text{TTA} + \text{v} + \text{not} \end{array} \right\} \text{X}$

(Carriers are any of WILL, BE, HAVE, or a modal. BE and HAVE are carriers when they are not used as main verbs)

26. Taffirm:NP $\left\{ \begin{array}{l} \text{TTA} + \text{carrier} \\ \text{TTA} + \text{v} \end{array} \right\} \text{X}$
 $\longrightarrow \text{NP} \left\{ \begin{array}{l} \text{TTA} + \text{carrier} + \text{A} \\ \text{TTA} + \text{v} + \text{A} \end{array} \right\} \text{X}$

27. Taf : $\text{af} + \left\{ \begin{array}{l} \text{carrier} \\ \text{v} \end{array} \right\} \longrightarrow \left\{ \begin{array}{l} \text{carrier} \\ \text{v} \end{array} \right\} + \text{af}$
 (Where af is any TTA, ATA, or part)

(iii) Morphophonemic Structure Rules¹⁶

28. in the past $\longrightarrow \{D_1\}$

29. at present $\longrightarrow \{\emptyset_1\}$

¹⁵Same as footnote (9) above.

¹⁶This group of rules is not meant to cover the morphophonemic structure of the outputs of all the previous transformational rules. It rather exclusively deals with 'temporal' morphemes in the English tense system.

30. earlier $\longrightarrow \{D_2\}$
31. non-earlier $\longrightarrow \{\emptyset_2\}$
32. simultaneously $\longrightarrow \{N\}$
33. $\left\{ \begin{array}{c} v \\ \text{carrier} \end{array} \right\} + \left\{ \begin{array}{c} \{D_2\} \\ \{N\} \\ \{\emptyset_2\} \end{array} \right\} \longrightarrow \left\{ \begin{array}{l} \text{past participle form} \\ \text{present participle form} \\ \text{infinitive form} \end{array} \right\}$
34. $\left\{ \begin{array}{c} v \\ \text{carrier} \end{array} \right\} + \left\{ \begin{array}{c} \{D_1\} \\ \{\emptyset_1\} \end{array} \right\} \longrightarrow \left\{ \begin{array}{l} \text{past form} \\ \text{present form} \end{array} \right\}$
35. WILL + $\{\emptyset_1\} \longrightarrow \left\{ \begin{array}{c} \text{will} \\ \text{shall} \end{array} \right\}$
36. WILL + $\{D_1\} \longrightarrow \left\{ \begin{array}{c} \text{would} \\ \text{should} \end{array} \right\}$
37. Modal + $\{\emptyset_1\} \longrightarrow \text{may, can, has/have to, ...}$
38. Modal + $\{D_1\} \longrightarrow \text{might, could, had to, ...}$
39. HAVE + $\{\emptyset_1\} \longrightarrow \left\{ \begin{array}{c} \text{has} \\ \text{have} \end{array} \right\}$
40. HAVE + $\{D_1\} \longrightarrow \text{had}$

CHAPTER SIX

FUNCTIONS OF ENGLISH TENSEMES

(A) Introduction

A discussion on the functions, i.e. linguistic uses, of tenseemes is included here because of the nature of the present study which is ultimately orientated towards pedagogy and application, thus falling more or less into the realm of applied linguistics. This inclusion is also the result of viewing language in a wider perspective as a means of communication.

W. E. Bull criticizes those approaches to the study of language which only describe the formal structure of a given language while ignoring the functions of the various linguistic forms in that language.

A language is not just a system of symbols existing in a vacuum. It is a system which combines with many other factors for the purpose of communication, and to understand the function of its forms or its form classes, one needs to analyze them in terms of how they fulfill this purpose. Language symbols ought to be treated in precisely the same way as the objects of material culture. They cannot be fully understood until we know their purpose in communication. There should be, consequently, no fundamental difference between the description of language in action and language as arbitrary vocal symbols. (Bull, p.116)

Bull also adds that "the difference between theoretical linguistics and applied linguistics may be roughly defined as the difference between an inventory of forms and an inventory of form functions" (p.110).

In relation to a discussion on the functions of verb forms and verbal clusters, Bull makes many other valuable remarks in his analysis of Spanish. "A form function," he says, for example, "is a feature of the complex in which it appears and not entirely something which the form contributes to the complex" (p.71). Bull then distinguishes ^{between} two types of functions for every 'tense form'; namely, the systematic and the non-systematic functions (p.70). The systematic function of a tenseme is the one 'which is defined by its systematic position' in the whole structure of the tense system in a specific language (p.60). This systematic position of a tenseme both in relation to an axis of orientation as well as to other tensemes is determined by the temporal value of the formal marker(s) of that tenseme. The non-systematic functions of any tenseme are those which are 'defined by the very fact that there is some arbitrary shift in systematic position' (p.60). In other words, it may be said that the non-systematic functions of a given tenseme are its special, rather than its general, uses.

In an article on 'Specification and English Tenses', David Crystal uses the terms 'non-marked' and 'marked' to refer to something similar to Bull's 'systematic' and 'non-systematic' functions, respectively (pp.1-34). The unmarked function of a certain tenseme is the expected one, i.e. the one formally indicated in

that tenseme by the tense and/or aspect marker(s). All the other functions of a given tenseme, on the other hand, are 'marked' as each of such functions has to be marked by 'the obligatory use of an accessory grammatical element: the non-omissible determiner' (Crystal, p.3). The use of the simultaneous present tenseme is leaving, for example, in the first of the following sentences is systematic or unmarked, whereas in the second sentence it is non-systematic or marked:

The train is leaving (now).

The train is leaving in ten minutes.

The tense and aspect markers in is leaving, namely $\{\emptyset_1\}$ and $\{N\}$ respectively, assume their normal positions in the first sentence above, i.e. they refer to an action simultaneous with the moment of speech. Simultaneity is normally expressed in English by $\{N\}$ and the present tense by $\{\emptyset_1\}$. The adverbial now in the first sentence above is optional: its presence does not add any new temporal significance to the sentence and may thus be omitted. In the second sentence, however, the present simultaneous tenseme is leaving is used to refer not to the present moment of speech but to a future point of time. Futurity is not normally indicated by either $\{\emptyset_1\}$ or $\{N\}$ in English alone. Thus the tenseme is leaving is made to refer to a future point only by help of the temporal adverbial in ten minutes. The omission of this

adverbial will change the meaning of the second sentence to that of the first. Therefore, in this special function of is leaving, viz. to indicate futurity, the adverbial is 'non-omissible'. The presence of an adverbial, or other linguistic clues, is the marker that must accompany the 'marked' or the 'non-systematic' functions of tense-emes.

Temporal adverbials seem to play a vital role in determining the functions of tense-emes in English. Kahane and Hutter have even defined the 'verbal archcategory TIME' as "the linguistic expression of the relationship between the action and certain (expressed or unexpressed) adverbial action modifiers."¹ In their description and analysis of Brazilian Portuguese tenses, they have given the temporal adverb a major role in deciding the various functions of tense-emes. After carrying out a rather comprehensive survey on verb-adverb co-occurrences, or 'specification', in English, Crystal produces much evidence which seem to verify his initial hypothesis that "time-relations in English are handled more by the careful use of adverbials (their presence AND absence) than by other means" (Crystal, p.7). Crystal reports the figures of an 'unexpectedly high frequency' of specification

¹H. R. Kahane and H. S. Hutter, "The Verbal Categories of Colloquial Brazilian Portuguese," Word (9, 1953), p.17.

in English. It thus seems that any description of the functions of tenseemes in English would be deficient without describing the verb-adverbial co-occurrences. This chapter is consequently an attempt to make use of the phenomenon of specification in the description of the functions of tenseemes in English.

(B) Approach and Technique

To distinguish among the various functions of one or more linguistic forms, meaning is bound to be resorted to and used as a classificatory criterion in the description of these functions. For such a functional analysis, Crystal points out that "a notional classification is useful and justifiable for both theoretical and procedural reasons" (p.7). Jakobson has already defended and suggested a notional classification for adverbials in his book on Adverbial Positions in English.² An adequate analysis of functions cannot be worked out, according to Bull, "without appealing to meaning, and it follows that both systematic and non-systematic functions have to be defined semantically" (p.71). On these grounds, the following notional approach used in this chapter in determining form functions is felt to be both necessary and justifiable.

²Sven Jakobson (Uppsala: Ab Studentbok, 1964), pp.76-79.

I. Test Two³(i) Objectives

1. To associate formal tenseemes with notional categories of time. Thus we get a broader picture of the temporal functions and notional distribution of various tenseemes and of the formal linguistic representations of the notional time structure in both tenseemes and temporal adverbials.
2. To check the frequency of occurrences of each tenseeme with the various notional categories of time. Higher frequencies of a given tenseeme with specific notional categories represent major functions, or systematic functions, of that tenseeme.
3. To observe the frequency of the representation of a certain notional category by various tenseemes. This will provide us with even a broader view of the functions of various tenseemes. By observing other linguistic phenomena, such as specification, a better picture of how tenseemes can indicate identical or similar temporal reference can be obtained.

(ii) Procedure

1. The first objective underlies an important theoretical

³Notice that Test One has already been reported and analyzed in Chapter One of Part Two.

and practical question since the notional and linguistic classifications of time rarely coincide with each other in any actual language. One result of mixing up the two classifications, for example, may be seen in the controversial issue of whether English has a future tense or not.

By asking informants to express certain notional time categories in English verbal forms, as well as by adding adverbials when necessary, a linguistic sample whose notional-formal complex interrelationships are of value for classification and analysis may be obtained.

2. The responses of the English-speaking informants will reveal the various functions that every tense has in indicating different temporal references. Both the distribution and the frequency of tenses are important in the analysis of the functions of those tenses.
3. Another way of examining the functions of tenses, perhaps complementary to that of (2) above, is to regard the notional categories as the basis of comparison and the tenses as the variables.

(iii) Format of the Test

(For the exact format of this test, see pp. 35-37 in the present study. The test has already been reported and used there for a different objective.)

(iv) The Notional Time Categorization Represented
by the Notional Cues Given Opposite Sentences
of Test Two

Past:

- a. General : Cues 6 and 15
- b. Specific: 2
- c. Simultaneous: 23, 17
- d. Earlier: 10, 12
- e. Later : 13, 16, 24

Present:

- a. General: 4, 7
- b. Specific (Simultaneous): 3, 14, 20, (22)
- c. Contemporaneous: 18
- d. Earlier: 8
- e. Later: 19

Future:

- a. General: 9
- b. Specific: 1
- c. Simultaneous: 21
- d. Earlier: 11
- e. Later: 5, 25

II. Test Three

(i) Objectives

1. To base the identification of the temporal functions of tenseemes on the associations of those tenseemes with various adverbials of time.

2. To find out whether tenseemes taken by themselves, an approach often used in school grammars, will convey the same temporal significance to every speaker of the language.
3. To discover special or non-systematic functions of tenseemes.

(ii) Procedure

1. The first objective of this test has been realized by providing a number of native speakers of English with various tenseemes and asking them to associate these tenseemes with suitable adverbials of time in sentences of their own. The co-occurrence of any one tenseme with different notional sets of temporal adverbials has revealed the temporal distribution of that tenseme, as will be shown in the data analysis later in this chapter.
2. The second objective, which is a pedagogic one, aims at testing the accuracy of school grammars as well as of many other traditional and modern studies of the English verb which discuss the temporal significance of tenseemes out of context, i.e. without, for example, taking into consideration that different specifications may produce different types of temporal reference. The inadequacy of such approaches has been revealed in the data by the

existence of various possible functions for each tenseme which are the result of different specifications, i.e. tenseme-adverbial co-occurrences.

3. The responses of the informants have revealed that certain tensemes tend to co-occur with certain adverbials of time in the majority of cases. Association with other different categories of temporal adverbials produces special meanings or non-systematic functions for those tensemes.⁴

(iii) Format of the Test

Use each of the following verbal forms in a sentence of your own, making sure that each of your sentences has at least ONE ADVERBIAL OF TIME.

1. had finished
2. goes
3. have gone
4. is reading
5. will have finished
6. went
7. will finish
8. had been reading
9. would go

⁴The classification of functions of tensemes into systematic and non-systematic ones is done in the section on General Conclusions at the end of this chapter.

- 10. will be reading
- 11. was reading
- 12. has been working
- 13. will have been working
- 14. would be leaving
- 15. would have been going
- 16. would have gone

(C) Analysis of Tests

A total of 2276 sentences is analyzed here: 1351 sentences as responses to Test Two and 925 to Test Three.⁵ One hundred and twenty-four native speakers of British English have taken part in the two experimental tests already described.⁶ All the informants were undergraduates in various departments at the University of Glasgow.

I. Test Two

In the analysis of the data of this test, numbers are used to stand for various tenseemes so as to make

⁵The actual sentences given by the informants for Test T h r e e are reported in Appendix (A); whereas the actual responses to Test Two may be reconstructed from the tables which follow on pp. 232-267

⁶Only two informants that participated in Test Two were French. Their responses are numbers 7 and 8 in the analysis of the data of Test Two.

reference easier in the tables which follow. Numbers are assigned to tenseemes according to the following table.

It is important to keep in mind that the following table is a FORMAL and not a temporal representation of tenseemes.

TABLE 2

Numbers	Represented Tenseemes
1	write/writes/is/am/are/...
3	have/has written
5	will/shall/may/can write
7	is/am/are/keep writing
9	have/has been writing
11	will/shall/may/can be writing
13	will/shall/may have written
15	will/shall/may have been writing
2	wrote
4	had written
6	would/should/might/could write
8	was/were writing
10	had been writing
12	would/should/might/could be writing
14	would/should/might/could have written
16	would/should/might/could have been writing

TABLE 3

1. Notional Cue: 'At a Specific Point in the FUTURE'Formal Cue : 'I (leave).'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	1	at 2.00	28.	5	-
2.	5	-	29.	5	-
3.	5	-	30.	11	tomorrow
4.	5	-	31.	5	at that particular time in the future
5.	5	-	32.	5	-
6.	5	-	33.	5	this evening
7.*	5	-	34.	5	when the sun rises
8.*	5	-	35.	5	-
9.	5	-	36.	5	-
10.	5	-	37.	5	then
11.	5	in an hour	38.	5	tomorrow
12.	5	at 2 o'clock	39.	5	-
13.	5	-	40.	5	-
14.	5	then	41.	5	in the morning
15.	5	soon	42.	5	tomorrow at 4 p.m.
16.	5	then	43.	5	tomorrow
17.	5	-	44.	11	-
18.	5	tomorrow	45.	5	then
19.	5	tomorrow	46.	5	-
20.	5	at midday	47.	5	then

contd...

* Informants numbers 7 and 8 throughout all the tables of Test II are non-native speakers of English.

Table 3 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
21.	5	tomorrow	48.	5	in two hours
22.	5	tomorrow	49.	5	tomorrow morning
23.	1	tomorrow	50.	5	tomorrow
24.	5	-	51.	5	at 6 o'clock to- night
25.	5	then	52.	5	then
26.	5	-	53.	5	at 10 o'clock
27.	5	at 2 o'clock	54.	5	-

TABLE : 4

2. Notional Cue: 'At a Specific Point in the PAST'

Formal Cue : 'He (leave).'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	2	-	28.	2	-
2.	2	-	29.	2	-
3.	2	-	30.	2	then
4.	2	-	31.	2	then
5.	2	-	32.	2	-
6.	2	-	33.	2	this morning
7.	2	-	34.	2	-

contd...

Table 4 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
8.	2	-	35.	2	(did leave)
9.	2	-	36.	2	-
10.	2	(did leave)	37.	2	at that point
11.	2	-	38.	2	at 10 o'clock
12.	2	at 5 o'clock	39.	2	then
13.	2	-	40.	2	-
14.	2	then	41.	2	yesterday
15.	2	then	42.	2	exactly an hour ago
16.	2	then	43.	2	yesterday
17.	-	-	44.	2	(did leave)
18.	2	yesterday	45.	2	then
19.	2	yesterday	46.	2	-
20.	2	at 5 o'clock	47.	2	at that point
21.	2	yesterday	48.	2	yesterday
22.	2	yesterday	49.	2	last night
23.	2	then	50.	2	yesterday
24.	2	-	51.	2	yesterday's morning at 9.15
25.	2	then	52.	2	-
26.	2	-	53.	2	at nine in the morning
27.	2	-	54.	2	-

TABLE 5

3. Notional Cue: 'Right Now'Formal Cue : 'They (read)'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	7	-	28.	7	-
2.	7	-	29.	7	-
3.	7	-	30.	7	at this moment
4.	7	-	31.	7	now
5.	7	-	32.	7	-
6.	7	-	33.	7	just now
7.	7	-	34.	7	-
8.	7	-	35.	7	-
9.	1	-	36.	7	-
10.	7	-	37.	7	-
11.	7	-	38.	7	now
12.	7	-	39.	7	at the moment
13.	7	-	40.	7	-
14.	7	-	41.	7	-
15.	7	-	42.	7	-
16.	7	at present	43.	7	-
17.	7	-	44.	7	-
18.	7	at this moment	45.	7	at this moment
19.	7	-	46.	7	-
20.	7	now	47.	7	at the moment
21.	7	at the moment	48.	7	-
22.	7	-	49.	7	-
23.	7	-	50.	7	right now
24.	7	-	51.	7	at this moment
25.	7	-	52.	7	at the moment
26.	7	-	53.	7	-
27.	7	-	54.	7	-

TABLE 6

4. Notional Cue: 'A Habit that is still the Case'

Formal Cue : 'He (come) here.'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	1	-	28.	1	-
2.	7	(keep coming)	29.	7	always
3.	1	-	30.	1	still, every day
4.	1	-	31.	1	every day
5.	1	-	32.	1	-
6.	1	-	33.	1	often
7.	1	quite often	34.	1	often
8.	1	usually	35.	1	-
9.	1	-	36.	9	for some time
10.	1	-	37.	-	-
11.	1	always	38.	1	every day
12.	1	always	39.	1	every day
13.	1	often	40.	1	still
14.	1	every day	41.	1	regularly
15.	1	still	42.	1	every afternoon
16.	1	still, as usual	43.	1	regularly
17.	1	-	44.	1	still
18.	1	always	45.	1	still
19.	1	often	46.	1	-
20.	1	usually	47.	1	still
21.	1	often	48.	1	regularly
22.	1	-	49.	1	every day
23.	3	always	50.	1	always
24.	1	-	51.	1	every Tuesday
25.	1	still	52.	1	regularly
26.	1	every day	53.	1	every day
27.	1	normally	54.	1	-

TABLE 7

5. Notional Cue: 'After a Specific Point in the FUTURE'

Formal Cue : 'I (leave)'.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	7	after tea	28.	-	-
2.	-	-	29.	-	-
3.	-	-	30.	5	after tomorrow
4.	-	-	31.	-	-
5.	5	then	32.	-	-
6.	-	-	33.	5	after I have seen him
7.	-	-	34.	5	after I have finished
8.	-	-	35.	-	-
9.	5	-	36.	11	then
10.	11	-	37.	-	-
11.	-	-	38.	5	after he has gone
12.	5	after he does	39.	5	once I am finished
13.	-	-	40.	5	-
14.	5	when he arrives	41.	-	-
15.	5	when he arrives	42.	5	after you arrive
16.	5	after 11 p.m.	43.	5	after tomorrow lunch
17.	5	then	44.	5	then
18.	-	-	45.	5	then
19.	5	when I am ready to	46.	-	-
20.	5	after I have seen him	47.	5	after 10 o'clock tomorrow
21.	5	when I have com- pleted my degree	48.	5	immediately afterwards
22.	5	after lunch	49.	5	when he arrives
23.	5	immediately after that	50.	5	afterwards

contd...

Table 7 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
24.	-	-	51.	5	on the morning after the 16th May
25.	-	-	52.	5	after that
26.	-	-	53.	11	tomorrow after lunch
27.	-	-	54.	5	-

TABLE 8

6. Notional Cue: 'General Past'Formal Cue : 'We (come) by bus.'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	6	(used to come)	28.	2	-
2.	2	-	29.	2	usually
3.	2	-	30.	6	(used to come)
4.	2	-	31.	2	-
5.	2	-	32.	2	-
6.	2	-	33.	2	-
7.	2	-	34.	2	-
8.	6	(used to come), usually	35.	2	usually
9.	6	(used to come)	36.	2	-
10.	2	-	37.	6	(used to come)
11.	2	-	38.	2	every day
12.	6	(used to come)	39.	2	-
13.	6	(used to come)	40.	6	(used to come)

contd...

Table 8 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
14.	2	-	41.	6	(would come), usually
15.	6	(used to come)	42.	6	(used to come)
16.	2	usually	43.	2	always
17.	2	-	44.	2	-
18.	6	(used to come)	45.	2	-
19.	2	-	46.	2	-
20.	2	usually	47.	2	-
21.	6	(used to come)	48.	2	usually
22.	6	(used to come)	49.	2	every day
23.	6	(would come)	50.	6	(would always come)
24.	2	-	51.	2	-
25.	2	-	52.	2	-
26.	2	-	53.	2	-
27.	2	-	54.	2	-

TABLE 9

7. Notional Cue: 'A General Fact'Formal Cue : 'Light (travel) faster than sound.'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	1	-	28.	1	-
2.	1	-	29.	1	-
3.	1	-	30.	1	-
4.	1	-	31.	1	-
5.	1	-	32.	1	-

contd...

Table 9 contd.

No.	Tense	me	Adverbial/Note	No.	Tense	me	Adverbial/Note
6.	1	-		33.	1	-	
7.	1	-		34.	1	-	
8.	1	-		35.	1	-	
9.	1	-		36.	1	-	
10.	1	-		37.	1	-	
11.	1	-		38.	1	-	
12.	1	-		39.	1	-	
13.	1	-		40.	1	-	
14.	1	-		41.	1	-	
15.	1	-		42.	1	-	
16.	1	-		43.	1	-	
17.	1	-		44.	1	-	
18.	1	-		45.	1	-	
19.	1	-		46.	1	-	
20.	1	-		47.	1	-	
21.	1	-		48.	1	-	
22.	1	-		49.	1	-	
23.	1	-		50.	1	-	
24.	1	-		51.	1	-	
25.	1	-		52.	1	-	
26.	1	-		53.	1	-	
27.	1	-		54.	1	-	

TABLE 10

8. Notional Cue: 'Indefinitely before the Present Time'Formal Cue : 'I (see) this film.'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	3	-	28.	3	-
2.	3	-	29.	-	-
3.	3	-	30.	14	(might have seen)
4.	14	(might have seen)	31.	3	-
5.	2	-	32.	2	once
6.	-	-	33.	3	-
7.	3	-	34.	3	-
8.	3	-	35.	3	-
9.	3	-	36.	3	-
10.	3	just	37.	2	at some time or other
11.	2	-	38.	2	-
12.	3	-	39.	14	(might have seen)
13.	3	-	40.	-	-
14.	3	-	41.	3	-
15.	2	once	42.	3	-
16.	-	-	43.	2	sometime
17.	13	(may have seen)	44.	2	-
18.	2	-	45.	2	at some time
19.	13	(may have seen)	46.	2	-
20.	2	-	47.	-	-
21.	13	(may have seen)	48.	13	(may have seen)
22.	-	-	49.	3	-

contd...

Table 10 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
23.	3	-	50.	3	-
24.	14	(might have seen)	51.	2	-
25.	2	-	52.	3	-
26.	14	(might have seen)	53.	3	before
27.	3	-	54.	2	-

TABLE 11

9. Notional Cue: 'Indefinitely in the FUTURE'

Formal Cue : 'She (arrive)'.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	5	-	28.	5	sometime
2.	5	-	29.	6	(should arrive)
3.	5	-	30.	5	(may arrive), next week some- time
4.	5	(may arrive)	31.	-	-
5.	5	-	32.	5	(may arrive)
6.	5	-	33.	11	sometime before midnight
7.	5	-	34.	5	-
8.	5	-	35.	6	(should arrive)
9.	5	-	36.	5	-
10.	5	-	37.	5	at some time

contd...

Table 11 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
11.	5	-	38.	5	soon
12.	11	-	39.	6	(could arrive)
13.	11	sometime	40.	5	at sometime in the future
14.	5	sometime	41.	6	(might arrive)
15.	5	(may arrive), soon	42.	5	soon
16.	5	-	43.	5	sometime
17.	5	(may arrive)	44.	5	-
18.	5	soon	45.	-	-
19.	5	(may arrive)	46.	5	-
20.	5	sometime	47.	6	(could arrive), tomorrow
21.	5	(may arrive), tomorrow	48.	5	(may arrive)
22.	5	(may arrive)	49.	5	sometime
23.	11	sometime	50.	5	sometime
24.	5	(may arrive)	51.	5	later
25.	11	(may be arriving)	52.	5	sometime
26.	5	(may arrive)	53.	11	sometime tomorrow
27.	11	-	54.	5	-

TABLE 12

10. Notional Cue: 'Before I met you.'Formal Cue : 'I (talk) to him.'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	8	-	28.	8	-
2.	2	-	29.	8	just
3.	8	-	30.	8	before I met you
4.	8	-	31.	2	-
5.	8	-	32.	8	a moment ago
6.	8	-	33.	8	-
7.	8	before I met you	34.	2	-
8.	2	-	35.	-	-
9.	2	-	36.	10	-
10.	-	-	37.	8	beforehand
11.	8	-	38.	2	before I met you
12.	8	-	39.	8	-
13.	8	before that	40.	2	-
14.	8	-	41.	8	just, before I met you
15.	6	(used to talk), before	42.	8	before I met you
16.	2	-	43.	8	before I met you
17.	8	-	44.	8	-
18.	2	before I met you	45.	10	already
19.	8	-	46.	8	-

contd...

Table 12 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
20.	2	before I met you	47.	8	-
21.	8	at that moment	48.	-	-
22.	8	-	49.	8	-
23.	-	-	50.	2	earlier before I met you
24.	10	-	51.	2	earlier before I met you
25.	2	before I met you	52.	8	just before I met you
26.	2	-	53.	4	-
27.	8	-	54.	10	-

TABLE 13

11. Notional Cue: 'Before a Specific Point in the FUTURE'
Formal Cue : 'John (finish).'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	5	-	28.	13	before then
2.	13	-	29.	5	(will be finished)
3.	13	-	30.	5	(will be finished), before tomorrow
4.	5	soon, early	31.	5	(will be finished)

contd...

Table 13 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
5.	5	-	32.	5	(will be finished)
6.	1	-	33.	13	before 9 o'clock
7.	13	-	34.	5	within ten minutes
8.	13	-	35.	13	by then
9.	5	-	36.	13	-
10.	5	-	37.	13	by then
11.	13	-	38.	-	-
12.	13	before 2 o'clock	39.	6	(should finish), before 5 o'clock
13.	13	by then	40.	5	before then
14.	5	before then	41.	13	before that
15.	6	(should finish) before five	42.	13	before 4 p.m.
16.	5	before he goes out	43.	13	by then
17.	13	-	44.	13	already
18.	5	before 4 o'clock	45.	13	by then
19.	13	before I leave	46.	13	-
20.	5	before 2 o'clock	47.	5	before the time is up
21.	13	before the news comes on	48.	13	by then
22.	5	(will be finished)	49.	13	by 6 o'clock
23.	13	by then	50.	1	before June

contd...

Table 13 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
24.	13	-	51.	5	the night before the 16th May
25.	13	by 6 p.m.	52.	5	(will be finished), by then
26.	5	-	53.	5	(must finish), before that
27.	13	before the bell rings	54.	13	-

TABLE 14

12. Notional Cue: 'Before a Specific Point in the PAST'
Formal Cue : 'She (leave).'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	2	-	28.	4	by then
2.	4	-	29.	14	-
3.	4	-	30.	4	before yesterday
4.	4	-	31.	4	-
5.	2	-	32.	4	-
6.	2	-	33.	2	before sunset
7.	2	-	34.	2	-
8.	4	-	35.	2	-
9.	2	-	36.	4	-
10.	2	-	37.	4	by then

contd...

Table 14 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
11.	4	-	38.	2	before the train came
12.	4	before I arrived	39.	-	-
13.	4	before then	40.	2	before then
14.	4	-	41.	4	previously
15.	2	before John arrived	42.	4	before we arrived
16.	2	before the train pulled out	43.	4	by 4 o'clock yesterday
17.	4	-	44.	4	already
18.	2	before he arrived	45.	4	already
19.	2	before I did	46.	4	-
20.	2	before you came	47.	2	before I could see her
21.	2	before I had arrived	48.	4	before then
22.	2	before you came	49.	4	by then
23.	4	already	50.	2	earlier than I did
24.	4	-	51.	2	before the 16th May
25.	4	by then	52.	4	by that time, already
26.	4	-	53.	2	before 2 o'clock
27.	4	-	54.	4	-

TABLE 15

13. Notional Cue: 'Two Hours after we Parted'

Formal Cue : 'I (meet) him.'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	2	again	28.	2	again later
2.	2	-	29.	2	-
3.	2	-	30.	2	two hours after we parted
4.	2	-	31.	2	-
5.	2	-	32.	2	later
6.	2	-	33.	2	two hours after we parted
7.	2	two hours after we parted	34.	2	-
8.	2	two hours after we parted	35.	2	once more
9.	2	two hours after we parted	36.	2	-
10.	2	again	37.	2	two hours later
11.	2	again two hours later	38.	2	two hours after we parted
12.	2	-	39.	2	two hours later
13.	2	-	40.	2	two hours later
14.	2	-	41.	2	again two hours after we parted
15.	2	later	42.	2	again
16.	2	again	43.	2	two hours after we parted
17.	2	-	44.	2	-

contd...

Table 15 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
18.	2	two hours after we parted	45.	2	-
19.	2	in the evening after we parted	46.	2	-
20.	2	two hours after we parted	47.	2	-
21.	2	in the evening after we parted	48.	2	-
22.	2	later	49.	2	-
23.	2	later	50.	2	again two hours after we parted
24.	2	then	51.	2	two hours after we parted
25.	2	-	52.	2	two hours after we parted, later
26.	2	-	53.	2	-
27.	2	-	54.	2	-

TABLE 16

14. Notional Cue: 'Right Now'Formal Cue : 'He almost (finish).'*

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	1	(is finished)	28.	1	(is finished)
2.	3	-	29.	7	-
3.	3	-	30.	1	(is finished)

contd...

* The adverbial almost is included in the sentences of all the informants. It is not mentioned in the above table as it is part of the original Formal Cue.

Table 16 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
4.	3	-	31.	1	(is finished)
5.	1	(is finished)	32.	1	(is finished)
6.	-	-	33.	1	(is finished)
7.	3	right now	34.	3	-
8.	3	-	35.	3	-
9.	1	(is finished)	36.	3	-
10.	1	(is finished)	37.	3	-
11.	1	(is practically finished)	38.	3	-
12.	3	-	39.	1	(is finished)
13.	3	-	40.	1	(is finished)
14.	1	(is finished)	41.	3	-
15.	1	(is finished)	42.	3	-
16.	3	-	43.	3	-
17.	1	(is finished)	44.	7	-
18.	1	(is finished)	45.	1	(is finished)
19.	1	(is finished)	46.	1	(is finished)
20.	1	(is finished), now	47.	1	(is finished)
21.	1	(is finished)	48.	3	-
22.	1	(is finished)	49.	3	-
23.	3	-	50.	1	(is finished), right now
24.	3	-	51.	7	just
25.	3	-	52.	1	(is finished)
26.	3	-	53.	-	-
27.	3	-	54.	7	-

TABLE 17

15. Notional Cue: 'An Old Habit that is no longer the Case'

Formal Cue : 'He (smoke) a lot.'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	2	-	28.	6	(used to smoke)
2.	6	(used to smoke)	29.	6	(used to smoke)
3.	6	(used to smoke)	30.	6	(used to smoke)
4.	6	(used to smoke)	31.	6	(used to smoke)
5.	2	-	32.	6	(used to smoke)
6.	6	(used to smoke)	33.	6	(used to smoke)
7.	6	(used to smoke)	34.	6	(used to smoke)
8.	6	(used to smoke)	35.	6	(used to smoke)
9.	2	-	36.	6	(used to smoke)
10.	6	(used to smoke)	37.	6	(used to smoke)
11.	6	(used to smoke)	38.	6	(used to smoke)
12.	6	(used to smoke)	39.	6	(used to smoke)
13.	6	(used to smoke)	40.	6	(used to smoke)
14.	6	(used to smoke)	41.	6	(used to smoke)
15.	-	-	42.	6	(used to smoke)
16.	6	(used to smoke)	43.	6	(used to smoke)
17.	6	(used to smoke)	44.	6	(used to smoke)
18.	6	(used to smoke)	45.	6	(used to smoke)
19.	6	(used to smoke)	46.	6	(used to smoke)
20.	6	(used to smoke)	47.	6	(used to smoke)
21.	6	(used to smoke)	48.	6	(used to smoke)
22.	6	(used to smoke)	49.	6	(used to smoke)
23.	6	(used to smoke)	50.	6	(used to smoke)

contd...

Table 17 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
24.	6	(used to smoke)	51.	6	(used to smoke)
25.	6	(used to smoke)	52.	6	(used to smoke)
26.	6	(used to smoke)	53.	6	(used to smoke)
27.	6	(used to smoke)	54.	(6	(used to smoke)
				(2	-

TABLE 18

16. Notional Cue: 'At a Time Later than that of the First Verb'

Formal Cue : 'We left together but (arrive) at our destination separately.'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	6	(would arrive)	28.	2	-
2.	2	-	29.	2	-
3.	2	-	30.	2	later
4.	2	-	31.	-	-
5.	2	-	32.	2	-
6.	2	-	33.	2	-
7.	2	then	34.	2	-
8.	2	-	35.	2	-
9.	2	-	36.	2	subsequently
10.	2	-	37.	2	-
11.	2	-	38.	2	-
12.	2	-	39.	2	-

contd...

Table 18 contd.

No.	Tenseme	Adverbial/note	No.	Tenseme	Adverbial/Note
13.	2	-	40.	2	-
14.	2	-	41.	2	then
15.	6	(were to arrive)	42.	2	-
16.	2	-	43.	-	-
17.	2	-	44.	2	-
18.	2	-	45.	2	-
19.	2	-	46.	-	-
20.	2	-	47.	-	-
21.	2	two hours later	48.	6	(were to arrive)
22.	2	-	49.	2	-
23.	2	later	50.	-	-
24.	2	then	51.	2	-
25.	2	-	52.	2	eventually
26.	2	-	53.	2	-
27.	2	-	54.	2	-

TABLE 19

17. Notional Cue: 'When I arrived'Formal Cue : 'He (study).'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	8	-	28.	8	-
2.	8	-	29.	8	-
3.	8	-	30.	8	when I arrived
4.	8	-	31.	8	when I arrived

contd...

Table 19 contd.

No.	Tense	me	Adverbial/Note	No.	Tense	me	Adverbial/Note
5.	8	-		32.	8	-	
6.	8	-		33.	8		when I arrived
7.	8		when I arrived	34.	8	-	
8.	8	-		35.	8	-	
9.	8	-		36.	8	-	
10.	8	-		37.	8		at that moment
11.	8	-		38.	8		when I arrived
12.	8	-		39.	8	-	
13.	8		at that point	40.	8	-	
14.	8	-		41.	8	-	
15.	8		when I arrived	42.	8		when I arrived
16.	8	-		43.	8		when I arrived
17.	8	-		44.	8	-	
18.	8		when I arrived	45.	8	-	
19.	8		when I arrived	46.	8	-	
20.	8		when I arrived	47.	8	-	
21.	8		when I arrived	48.	8	-	
22.	8		when I arrived	49.	8		when I arrived
23.	8	-		50.	8		when I arrived
24.	8	-		51.	8		when I arrived
25.	8		when I arrived	52.	8		when I arrived
26.	8	-		53.	8	-	
27.	8	-		54.	8	-	

TABLE 20

18. Notional Cue: 'Nowadays'Formal Cue : 'He (work) hard.'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	7	-	28.	1	-
2.	1	-	29.	1	-
3.	1	-	30.	1	nowadays
4.	1	-	31.	1	-
5.	1	-	32.	1	-
6.	7	-	33.	1	nowadays
7.	-	-	34.	1	-
8.	7	-	35.	1	-
9.	1	-	36.	1	-
10.	7	-	37.	11	(does work), these days
11.	1	-	38.	1	nowadays
12.	-	-	39.	7	-
13.	1	nowadays	40.	1	nowadays
14.	1	now	41.	1	nowadays
15.	7	these days	42.	1	always, these days
16.	1	-	43.	1	nowadays
17.	1	-	44.	1	-
18.	1	nowadays	45.	1	now
19.	1	now	46.	1	-
20.	1	nowadays	47.	1	-
21.	1	nowadays	48.	1	now
22.	1	nowadays	49.	1	-

contd...

Table 20 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
23.	1	-	50.	1	nowadays
24.	1	-	51.	1	nowadays
25.	1	-	52.	1	nowadays
26.	1	-	53.	1	these days
27.	1	-	54.	1	these days

TABLE 21

19. Notional Cue: 'Indefinitely After the Present Moment'

Formal Cue : 'He (leave).'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	7	-	28.	7	soon
2.	5	-	29.	6	(should leave)
3.	11	-	30.	5	(may leave), sometime soon
4.	5	(ought to leave) soon	31.	7	(<u>is going to</u> leave)
5.	5	sometime	32.	5	sometime
6.	11	-	33.	7	(<u>is going to</u> leave), later
7.	5	-	34.	5	-
8.	5	-	35.	-	-

contd...

Table 21 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
9.	5	-	36.	5	soon
10.	1	(<u>is</u> ...to leave) just about	37.	7	in ten minutes
11.	11	-	38.	7	(<u>is going</u> to leave)
12.	5	soon	39.	1	(is to leave)
13.	5	sometime	40.	5	sometime or other
14.	7	(<u>is going</u> to leave)	41.	1	(is about to leave soon)
15.	11	(may be leaving in a minute)	42.	1	(is to leave), sometime to- morrow
16.	1	(is to leave)	43.	5	anytime now
17.	-	-	44.	1	(is to leave)
18.	5	soon	45.	1	(is to leave)
19.	5	(may leave), in a short while	46.	5	(is to leave)
20.	5	soon	47.	6	(might leave), in a moment
21.	5	(may leave), in five minutes	48.	5	-
22.	6	(might leave), later	49.	7	(<u>is going</u> to leave)
23.	11	-	50.	7	(<u>is going</u> to leave)

contd...

Table 21 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
24.	5	(may leave)	51.	5	soon
25.	5	(may leave), soon	52.	-	-
26.	5	(may leave)	53.	-	-
27.	11	shortly	54.	5	-

TABLE 22

20. Notional Cue: 'Right Now'Formal Cue : 'I (open) the door.'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	7	-	28.	7	-
2.	7	-	29.	7	-
3.	7	-	30.	7/1	-
4.	1/7	-	31.	7	-
5.	5	-	32.	7	-
6.	5	-	33.	7	just now
7.	1	-	34.	7	-
8.	7	-	35.	7	-
9.	7	-	36.	7	-
10.	7	-	37.	7	at this present moment
11.	7	-	38.	1	-

contd...

Table 22 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
12.	7	-	39.	7	-
13.	7	-	40.	7	-
14.	7	-	41.	7	(<u>am going to open</u>)
15.	7	-	42.	7	-
16.	7	-	43.	7	-
17.	7	-	44.	7	-
18.	7	-	45.	7	-
19.	7	-	46.	7	-
20.	7	right now	47.	7	-
21.	7	-	48.	7	-
22.	7	-	49.	7	-
23.	7	-	50.	1	right now
24.	7	-	51.	7	-
25.	7	-	52.	7	-
26.	7	-	53.	7	-
27.	7	-	54.	7	-

TABLE 23

21. Notional Cue: 'When you arrive Tomorrow'

Formal Cue : 'He (read).'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	11	-	28.	5	-
2.	11	-	29.	11	-

contd...

Table 23 contd.

No.	Tense	me	Adverbial/Note	No.	Tense	me	Adverbial/Note
3.	11	-		30.	11		when you arrive tomorrow
4.	5	-		31.	11	-	
5.	11	-		32.	5		then
6.	11	-		33.	11		when you arrive tomorrow
7.	11		when you arrive tomorrow	34.	11	-	
8.	11	-		35.	11	-	
9.	5	-		36.	11	-	
10.	11	-		37.	11		at that time
11.	11	-		38.	11		when you arrive tomorrow
12.	5	-		39.	5	-	
13.	11		then	40.	5		when you arrive
14.	11	-		41.	5	-	
15.	11	-		42.	11	-	
16.	11	-		43.	11		when you arrive tomorrow
17.	11	-		44.	11	-	
18.	11		when you arrive tomorrow	45.	11	-	
19.	11	-		46.	5	-	
20.	11		when you arrive	47.	5	-	
21.	11		when you arrive	48.	11	-	
22.	11		when you arrive	49.	11	-	
23.	11	-		50.	5		when you arrive tomorrow

contd...

Table 23 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
24.	11	-	51.	5	when you arrive tomorrow
25.	11	-	52.	5	-
26.	11	-	53.	11	when you arrive tomorrow
27.	11	-	54.	11	when you arrive tomorrow

TABLE 24

22. Notional Cue: 'Now'Formal Cue : 'He (listen) to music.'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	7	-	28.	7	-
2.	7	-	29.	7	-
3.	7	-	30.	7	-
4.	7	-	31.	1	-
5.	7	-	32.	7	-
6.	7	-	33.	7	at the moment
7.	7	now	34.	7	-
8.	7	-	35.	7	-
9.	7	-	36.	7	-
10.	7	-	37.	7	at the present moment

contd...

Table 24 contd.

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
11.	7	-	38.	7	-
12.	7	-	39.	7	-
13.	7	-	40.	7	-
14.	7	-	41.	7	-
15.	7	-	42.	7	-
16.	7	-	43.	7	-
17.	7	-	44.	7	-
18.	7	just now	45.	7	at this moment
19.	7	-	46.	7	-
20.	7	right now	47.	7	-
21.	7	-	48.	7	-
22.	7	just now	49.	7	-
23.	7	-	50.	7	now
24.	1	-	51.	7	-
25.	7	-	52.	7	-
26.	7	-	53.	7	-
27.	7	-	54.	7	-

TABLE 25

23. Notional Cue: 'All Day Yesterday'Formal Cue : 'He (read).'

No.	Tense	Adverbial/Note	No.	Tense	Adverbial/Note
1.	2	-	28.	2	-
2.	2	-	29.	2	-
3.	2	-	30.	2	all day yesterday

contd...

Table 25 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
4.	2	-	31.	2	-
5.	2	-	32.	2	all day
6.	2	-	33.	2	all day yester-day
7.	-	-	34.	2	-
8.	-	-	35.	2	-
9.	2	-	36.	2	-
10.	2	-	37.	2	all day yester-day
11.	-	-	38.	2	all day yester-day
12.	2	-	39.	8	-
13.	2	all that time	40.	2	-
14.	2	all day	41.	2	-
15.	2	for a long time	42.	2	-
16.	8	(kept reading)	43.	2	all day yester-day
17.	2	yesterday	44.	2	all day yester-day
18.	8	all day yester-day	45.	2	-
19.	8	-	46.	8	-
20.	8	all day yester-day	47.	2	-
21.	8	all day yester-day	48.	2	-
22.	2	all day yester-day	49.	2	all day yester-day

contd...

Table 25 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
23.	2	-	50.	2	all day yesterday
24.	2	-	51.	8	all day yesterday
25.	2	-	52.	2	all day yesterday
26.	2	-	53.	8	all day yesterday
27.	2	-	54.	8	-

TABLE 26

24. Notional Cue: 'At a Time Later than that of the First Verb'

Formal Cue : 'I promised that I (go).'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	6	-	28.	6	-
2.	6	-	29.	6	-
3.	6	-	30.	6	-
4.	6	-	31.	6	-
5.	6	-	32.	6	-
6.	6	-	33.	6	-
7.	6	-	34.	6	-
8.	6	-	35.	6	-
9.	6	-	36.	6	-
10.	6	-	37.	6	-

contd...

Table 26 contd.

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
11.	6	-	38.	6	-
12.	6	-	39.	6	-
13.	6	-	40.	6	-
14.	6	-	41.	6	-
15.	6	-	42.	6	-
16.	6	-	43.	6	-
17.	6	later	44.	6	-
18.	-	-	45.	6	-
19.	6	-	46.	6	(should go)
20.	6	later	47.	6	-
21.	6	-	48.	6	again
22.	6	-	49.	6	-
23.	-	-	50.	6	-
24.	6	(should go)	51.	6	later
25.	6	-	52.	6	-
26.	6	-	53.	6	-
27.	6	-	54.	6	-

TABLE 27

25. Notional Cue: 'After we meet Tomorrow'

Formal Cue : 'We (leave) together.'

No.	Tenseme	Adverbial/Note	No.	Tenseme	Adverbial/Note
1.	5	-	28.	5	-
2.	7	-	29.	5	-
3.	5	-	30.	5	-
4.	5	-	31.	5	-

contd...

Table 27 contd.

No.	Tense	me Adverbial/Note	No.	Tense	me Adverbial/Note
5.	5	-	32.	5	-
6.	5	-	33.	5	-
7.	5	after we meet tomorrow	34.	5	-
8.	5	-	35.	5	-
9.	5	-	36.	5	then
10.	5	then	37.	5	afterwards
11.	5	-	38.	5	-
12.	5	-	39.	5	-
13.	5	after that	40.	5	-
14.	5	after we meet...	41.	5	-
15.	5	afterwards	42.	5	-
16.	5	-	43.	5	after we meet...
17.	5	-	44.	5	-
18.	5	after we meet...	45.	5	then
19.	5	-	46.	5	-
20.	5	after we meet...	47.	5	-
21.	5	then	48.	5	-
22.	5	-	49.	5	-
23.	5	-	50.	5	after we meet...
24.	5	-	51.	5	after we meet...
25.	5	-	52.	5	then
26.	5	-	53.	5	after we meet...
27.	5	-	54.	5	-

II. Test Three

Before reporting the data-analysis as such, the following terms used in the analysis need to be defined:

1. A SPECIFIC point/period of time is one that is uniquely located in the linear chronological sequence of time irrespective of whether it is past, present, or future, e.g. last week, tomorrow, at 10 a.m., at the end of the year, etc.
2. An UNSPECIFIC point/period of time is one that is ambiguous in the sense that its exact temporal location in the time sequence is undetermined, such as when he arrived, the moment he arrives, later, soon, etc. The first adverbial above, for example, ^{happened at} could have / any point in the past and is thus unspecific.
3. An UNSPECIFIED point/period of time is also ambiguous in so far as its temporal location in past, present, or future is unspecified, e.g. in the morning, at 6 p.m., earlier, etc. Unspecified points/periods of time may be either specific, i.e. referring to a unique time within an unspecified temporal field, such as the first two adverbials just mentioned above, or they can be unspecific, such as the third adverbial above.

4. A SPECIFIED point/period of time is one that is temporally unambiguous in that it clearly refers to the past, the present, or the future, e.g. yesterday, at this moment, tomorrow, etc.⁷

Each of the following sixteen tables used in the data-analysis of Test Three is divided up into three columns. The first column contains temporal adverbials that have been subdivided into various notional categories according to differences in their temporal reference. The second column in each table cites numbers of all sentences in the data of Test Three in which a given notional adverbial category is used. The actual sentences themselves, however, do not appear in the tables, but are reported in a special appendix at the end. The third column gives the various functions of each tense. Each function of a given tense is to be regarded as the product of the co-occurrence of that particular tense with the adverbial category which appears opposite that function in any one table.

Every table of the following represents the usage of one of the tenses given to the informants of Test Three.

⁷In the tables of Test Three, specified adverbials are further subdivided according to their temporal reference into PAST, PRESENT, or FUTURE adverbials, and are thus called. Consequently, the cover-term SPECIFIED is not used as such in the tables.

TABLE 28

1. GOES (Basic Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Frequency</u>	1, 2, 4, 5, 8, 20, 18, 25, 26, 27, 33, 34, 35, 38, 42, 50, 52, 54, 55, 56, 58, 62, 64, 68, 69, 70	<u>A Current Habit</u>
(B) <u>A Future Point</u>	3, 6, 9, 10, 16, 19, 32, 36, 41, 44, 59, 63	<u>A Specific Future Action or State</u>
(C) <u>An Unspecified Point</u>	<u>a. Specific:</u> 12, 15, 24, 28, 45, 57 <u>b. Unspecific:</u> 13 <u>c. Specific and Unspecific:</u> Both <u>a</u> and <u>b</u> above	<u>a. As (B) above</u> <u>b. At an Unspecific Future Point</u> <u>c. As (A) above</u>
(D) <u>Simultaneous Present</u>	21, 48, 60	<u>An Action/State at Simultaneous Present</u>
(E) <u>Unspecified Duration</u>	39	<u>A Statement of Fact</u>

contd...

Table 28 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(F) <u>After a Future Point</u>	43	<u>A Post-Future Action</u>
(G) <u>Before a Future Point</u>	49	<u>A Pre-Future Action</u>
(H) <u>A Post-Future Frequency</u>	53	<u>A Post-Future (Specific Frequency)</u>

TABLE 29

2. WENT (Basic Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Specific Point in the Past</u>	1,2,4,7,8,9,13,15,18,19,20,21,25,26,28,29,30,33,34,35,36,39,47,51,52,54,56,58,59,62,63,66,67,68,69,37	<u>An Action/State taken place at a Specific Point of Time in the Past</u>
(B) <u>An Unspecific Point in the Past</u>	6,11,50,60,64	<u>An Action/State taken place at an Unspecific Point of Time</u>

contd...

Table 29 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(C) <u>An Unspecified Point</u>	24,32,41,45,48	<u>As in (A) above</u>
(D) <u>After an Action in the Past</u>	14,31,44,53,61	<u>A Post-Past Action</u>
(E) <u>After an Un-specified Point of Time</u>	22,23,27,42,57	<u>As in (D) above</u>
(F) <u>Before an Action in the Past</u>	49,55	<u>A Pre-Past Action</u>
(G) <u>Past Frequency</u>	38	<u>A Frequent Action in the Past</u>
(H) <u>Unspecified Frequency</u>	46	<u>As in (G) above</u>
(I) <u>A Specific Future Point of Time</u>	10	<u>A Tentative Conditional Future</u>
(J) <u>Daytime Period</u>	3	<u>As in (A) above</u>

TABLE 30

3. HAVE GONE (Earlier Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Unspecific Past</u>	28,38,67	<u>An Action at an Unspecific Past Point</u>
(B) <u>Simultaneous Present</u>	1,62	<u>An Action at Recent Past</u>
(C) <u>An Unspecified Point of Time</u>	3,13,31,33	<u>As in (A) above</u>
(D) <u>Daytime Period</u>	8,17,32,40,43,45,48,54,70,	<u>As in (B) above</u>
(E) <u>After an Unspecified Duration</u>	15,42	<u>An Action at an Unspecific Post-Past (Specific Duration)</u>
(F) <u>A Future Point</u>	20,52(with temporal conjunctions)	<u>An Action at Pre-Future</u>
(G) <u>An Unspecified Frequency</u>	23,25,64	<u>A Frequent Action at Unspecific Points of Time in the Past</u>
(H) <u>Past Frequency</u>	68	<u>As in (G) above</u>

TABLE 31

4. HAD FINISHED (Earlier Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Specific Point in the Past</u>	a. 13, 54, 68 b. 10, 49 (with <u>if</u>)	a. <u>Prior to a Specific Past Point</u> b. <u>Hypothetical Past</u>
(B) <u>A Specific Action in the Past</u>	15, 28	<u>Prior to another Specific Past Action</u>
(C) <u>An Unspecific Action in the Past</u>	6, 7, 8, 16, 20, 23, 26, 33, 34, 35, 39, 52, 53, 56, 61, 66, 70	<u>Prior to another Unspecific Past Action</u>
(D) <u>Unspecified Point</u>	2, 3, 4, 27, 38, 41, 42, 60, 63	<u>Prior to a Specific Past Point</u>
(E) <u>Before an Action in the Past</u>	9, 21, 24, 25, 40, 44, 67	<u>As in (C) above</u>
(F) <u>Before an Unspecified Point</u>	a. <u>Specific</u> : 45, 51, 69, 62	a. <u>Prior to a Specific Past Point</u>
	b. <u>Unspecific</u> : 57, 29	b. <u>Prior to an Unspecific Past Point</u>
(G) <u>Daytime Period</u>	32 (with <u>if</u>)	<u>Hypothetical Past</u>

TABLE 32

5. WILL FINISH (Later Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Specific Future Point of Time</u>	3,6,8,15,24,25,28,30,32,34,35,39,47,59,61,70	<u>An Action that will take place at a Specific Future Point.</u>
(B) <u>An Unspecified Point of Time</u>	a. <u>Specific</u> :1, 2,17,41,53,57, 66 b. <u>Unspecified</u> :9, 10,31,56,62, 45	a. <u>As in (A) above</u> b. <u>An Action that will take place at an Unspecific Future Point</u>
(C) <u>A Pre-Future Point</u>	4,19,37,63,64	<u>A Pre-Future Action</u>
(D) <u>Before a Point at Daytime Period</u>	7,20,46	<u>As in (C) above</u>
(E) <u>After an Unspecified Point</u>	14,26,29,40,65	<u>A Post-Future Action</u>
(F) <u>Before an Unspecified Point</u>	16,21,44,49,38, 50,67,69	<u>As in (C) above</u>
(G) <u>At Daytime Period</u>	36,55,58,60,68	<u>As in (A) above</u>

contd. . .

Table 32 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(H) <u>Contemporaneous Present</u>	27	<u>As in (A) above</u>
(I) <u>Unspecific Future</u>	12, 22, 23, 43	<u>As in (Bb) above</u>
(J) <u>After a Future Point</u>	42, 54	<u>As in (E) above</u>
(K) <u>Before a Point at Contemporaneous Present</u>	52	<u>As in (C) above</u>

TABLE 33

6. WOULD GO (Later Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Unspecified Point of Time</u>	<u>a.</u> 6 (Past Point of Reference, esp. in Reported Speech) <u>b.</u> 13, 17, 19, 23, 24, 27, 38, 41, 42, 43, 68, 70 (with <u>if</u>) <u>c.</u> 34, 36, 69 (with <u>but</u>)	<u>a.</u> <u>Post-Past</u> <u>b.</u> <u>Tentative Future</u> <u>c.</u> <u>Hypothetical Future</u>

contd. . .

Table 33 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>A Future Point of Time</u>	<u>a.</u> 2, 7, 15, 31 (Reported) <u>b.</u> 4, 30, 49, 54 (with <u>but</u>) <u>c.</u> 8, 9, 10, 20, 21, 28, 29, 39, 56, 61, 63, 64, 66 (with <u>if</u>)	<u>a.</u> As in (Aa) above <u>b.</u> As in (Ac) above <u>c.</u> As in (Ab) above
(C) <u>A Past Point of Time</u>	3, 40	<u>As in (Ab) above</u>
(D) <u>Unspecified Duration of Time</u>	26	<u>As in (Ab) above</u>
(E) <u>Before an Unspecified Point of Time (Specific Frequency)</u>	16	<u>A Past Habit</u>
(F) <u>After a Point in the Past</u>	18, 60, 65	<u>As in (Aa) above</u>
(G) <u>After an Unspecific Point of Time</u>	37 (with <u>if</u> + <u>not</u>)	<u>As in (Ac) above</u>
(H) <u>Unspecified Frequency</u>	47	<u>As in (E) above</u>

cont. . .

Table 33 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(I) <u>After a Future Point</u>	52	<u>As in (Ab) above</u>
(J) <u>Before an Un-specified Point</u>	48	<u>As in (Ab) above</u>
(K) <u>Daytime Period</u>	<u>a.</u> 1,45,58(Report- ed) <u>b.</u> 5,33,62 <u>c.</u> 25,50,11	<u>a.</u> <u>As in (Aa)</u> <u>above</u> <u>b.</u> <u>As in (Ab)</u> <u>above</u> <u>c.</u> <u>As in (Ac)</u> <u>above</u>
(L) <u>Simultaneous Present</u>	<u>a.</u> 32 <u>b.</u> 44	<u>a.</u> <u>As in (Ab)</u> <u>above</u> <u>b.</u> <u>As in (Ac)</u> <u>above</u>

TABLE 34

7. IS READING (Simultaneous Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Simultaneous Present</u>	3,4,8,9,18,27,31, 34,37,40,46,48,50, 52,54,55,64,69	<u>Simultaneous Present Action</u>

contd...

Table 34 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>Daytime Period</u>	2, 20, 24, 25, 59, 66	a. <u>A Future Action</u> b. <u>As in (A) above</u>
(C) <u>An Unspecified Point of Time</u>	6, 60	a. <u>As in (Ba) above</u> b. <u>As in (A) above</u> c. <u>A General Habit or Fact seen as Timeless</u>
(D) <u>Before an Unspecified Point</u>	10	a. <u>As in (A) above</u> b. <u>As in (Cc) above</u>
(E) <u>A Future Point of Time</u>	12, 16, 19, 28, 41, 61, 70	<u>As in (Ba) above</u>
(F) <u>An Unspecified Frequency</u>	13, 38, 53, 56	<u>As in (Cc) above</u>
(G) <u>A Future Point (End of Duration)</u>	33	<u>An Action that ends up at or before a Point in Future (Specific Duration)</u>
(H) <u>An Unspecified Duration</u>	42, 45	a. <u>As in (Ba) above</u> b. <u>As in (A) above</u>

contd...

Table 34 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(I) <u>After an Unspecified Point</u>	62	a. <u>As in (A) above</u> b. <u>As in (Cc) above</u>
(J) <u>Contemporaneous Present</u>	1,11,68	a. <u>As in (Ba) above</u> b. <u>Action at Contemporaneous Present</u>

TABLE 35

8. WAS READING (Simultaneous Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Specific Point in the Past</u>	1,11,24,25,26,28,30,32,45,59,61,68,69	<u>An Action Going on at a Specific Past Point</u>
(B) <u>An Action in the Past</u>	2,4,5,6,8,10,12,15,16,18,19,20,7,21,29,34,35,37,38,43,44,49,50,51,54,56,57,58,62,67,70	<u>An Action Simultaneous with another in the Past</u>
(C) <u>An Unspecified Point of Time</u>	3,13,31,36,48,60	<u>As in (A) above</u>

contd...

Table 35 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(D) <u>An Unspecified Duration of Time</u>	17,33,41	<u>An Action Simultaneous with a Period of Time in the Past (Specific Duration)</u>
(E) <u>An Unspecific Point in the Past</u>	9,39,47,64	<u>An Action Going on at an Unspecific Point in the Past</u>
(F) <u>After an Action in the Past</u>	52,53	<u>An Action that follows another in the Past</u>
(G) <u>Before an Action in the Past</u>	55,63,66	<u>An Action that precedes another in the Past</u>

TABLE 36

9. HAS BEEN WORKING (Simultaneous Earlier-Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Overall Duration (Specific End)</u>	16 (Specific Duration, with <u>if</u>)	<u>An Action Continuing up to a Future Point</u>

contd...

Table 36 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>An Unspecified Overall Duration</u>	2,8,10,12,18,26,27,28,29,31,33,34,35,36,38,40,41,42,48,49,55,57,59,60,64,65	<u>An Unspecific Past Activity Continuing up to the Moment of Speech (Specific Duration)</u>
(C) <u>An Unspecified Point</u>	3	<u>A Repeated Past Action that is still on at M.O.S.</u>
(D) <u>An Unspecified Overall Duration (Specific Beginning)</u>	4,32,37,47,52,53,63	<u>A Past Activity Continuing up to M.O.S. (Specific Beginning of Duration)</u>
(E) <u>A Past Duration (Specific Beginning)</u>	5,6,20,24,66,67,70	<u>As in (D) above</u>
(F) <u>A Past Duration Extending up to M.O.S.</u>	1,7,11,21,25,30,39,56,58,69	<u>A Past Activity Marked as Continuing up to M.O.S.</u>
(G) <u>An Unspecific Past</u>	9,13,68	<u>As in (C) above</u>

contd. . .

Table 36 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(H) <u>An Unspecified Duration (Spec-End; Specific Frequency)</u>	43,62	<u>As in (C) above</u>
(I) <u>A Pre-Past Point</u>	44	<u>An Activity Be- gun at a Pre-Past Point and contin- ued up to M.O.S.</u>
(J) <u>A Past Duration Extending up to M.O.S. (Speci- fic Frequency)</u>	54	<u>As in (C) above</u>
(K) <u>After an Unspeci- fied Point of Time</u>	15,61	<u>An Activity begun at a Post-Past Point and is still Going on at M.O.S.</u>

TABLE 37

10. HAD BEEN READING (Simultaneous Earlier-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecific Action in Past</u>	1,4,8,12,15,16, 17,20,23,28,34, 49,50,56,58,64,69	<u>Prior to and Simultaneous with an Unspecific Action in Past</u>

contd...

Table 37 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>An Unspecified Point of Time</u>	2,9,13,60	<u>Prior to and Simultaneous with a Specific Point in the Past</u>
(C) <u>Before an Unspecified Point</u>	3,42,57	<u>Duration at Pre-Past</u>
(D) <u>A Duration before a Past Action</u>	5,6,10,31,44, 62	<u>As in (A) above (Specific Duration)</u>
(E) <u>A Duration at an Unspecified Time</u>	11,21,22,26,27, 29,32,33,37,41,45, 47,59,63,67,43,	<u>As in (B) above (Specific Duration)</u>
(F) <u>A Specific Point in the Past</u>	19,24,25,30,35, 39,54	<u>As in (B) above</u>
(G) <u>Before an Unspecific Action in the Past</u>	36,55, 70	<u>As in (C) above</u>
(H) <u>A Duration to an Unspecified Point</u>	38	<u>As in (B) above</u>
(I) <u>On Daytime Period</u>	61	<u>A Hypothetical Past Condition (with 'if')</u>

contd...

Table 37 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(J) <u>A Specific Action in the Past</u>	7,18,68	<u>Prior to a Specific Action in the Past</u>
(K) <u>Up to an Unspecified Point</u>	53	<u>As in (B) above</u>
(L) <u>Up to an Unspecific Action in the Past</u>	46,66	<u>As in (A) above</u>
(M) <u>Before a Specific Action in the Past</u>	52	<u>As in (C) above</u>

TABLE 38

11. WILL BE READING (Simultaneous Later-Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Specific Future Point</u>	1,4,5,8,9,10,13,19, 24,25,28,30,32, 33,35,47,48,64, 67	<u>An Action Simultaneous with a Specific Future Point of Time</u>

contd...

Table 38 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>Contemporaneous Present (Specific Frequency)</u>	18	<u>A Repeated and Continuous Action in the Future</u>
(C) <u>Daytime Period</u>	2,3,7,12,26,27,43,45,56,59,66,68	<u>As in (A) above</u>
(D) <u>A Duration in the Future</u>	21,39	<u>As in (A) above</u>
(E) <u>After a Future Point</u>	15,20,49,54	<u>A Post-Future Action</u>
(F) <u>An Unspecific Future Point</u>	16,17,22,29,31,36,41,42,53,61,63,65,70	<u>An Action Simultaneous with an Unspecific Future Point of Time</u>
(G) <u>An Unspecified Duration</u>	23,37,58	<u>As in (A) above</u>
(H) <u>An Unspecified Point of Time</u>	34,38,52,60	<u>As in (F) above</u>
(I) <u>A Duration at Pre-Future</u>	11,44	<u>A Repeated and Continuous Action at Pre-Future</u>

contd...

Table 38 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(J) <u>End of Duration at Future</u>	46,50,55	<u>As in (I) above</u>
(K) <u>Daytime Period (Specific Duration)</u>	69	<u>As in (A) above</u>
(L) <u>After a Point at Daytime Period</u>	57	<u>As in (E) above</u>
(M) <u>After an Unspecified Point</u>	62	<u>As in (E) above</u>

TABLE 39

12. WOULD BE LEAVING (Simultaneous Later-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point of Time</u>	<u>a.</u> 11,32,33,34,35, 40,45,69 <u>b.</u> 19,22,25 <u>c.</u> 39,66	<u>a.</u> <u>Tentative Future</u> <u>b.</u> <u>Post-Past (Past Point of Reference)</u> <u>c.</u> <u>Hypothetical Future (if + not)</u>

contd...

Table 39 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>After an Unspecified Point of Time</u>	<u>a.</u> 2,42 <u>b.</u> 57	a. <u>Tentative Post-Future</u> b. <u>As in (Ab) above</u>
(C) <u>A Future Point of Time</u>	<u>a.</u> 4,27,43,48,17 <u>b.</u> 7,9,18,56 <u>c.</u> 26,36,37,41,52,54	a. <u>As in (Aa) above</u> b. <u>As in (Ab) above</u> c. <u>As in (Ac) above</u>
(D) <u>Simultaneous Present</u>	<u>a.</u> 3,31,44,46,50 <u>b.</u> 10,21,53	a. <u>Hypothetical Present or Near Future</u> b. <u>Tentative Present or Near Future</u>
(E) <u>A Past Point of Time</u>	15,24,47,55,64	a. <u>As in (Ab) above</u> b. <u>As in (Aa) above</u>
(F) <u>Before an Unspecified Point of Time</u>	<u>a.</u> 23,28 <u>b.</u> 63,70	a. <u>Hypothetical Pre-Future</u> b. <u>Tentative Pre-Future</u>
(G) <u>A Past Point of Time (Specific Frequency)</u>	62,65	<u>As in (Ab) above</u>

contd...

Table 39 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(H) <u>Contemporaneous Present</u>	<u>a</u> .13 <u>b</u> .68 <u>c</u> .59	a. <u>As in (Ab) above</u> b. <u>As in (Ac) above</u> c. <u>As in (Aa) above</u>
(I) <u>An Unspecified Point (Specific Frequency)</u>	6,16	<u>A Past Habit</u>
(J) <u>Daytime Period</u>	<u>a</u> .1,8,30,51 <u>b</u> .29,58	a. <u>As in (Da) above</u> b. <u>As in (Ab) above</u>

TABLE 40

13. WILL HAVE FINISHED (Pre-Later Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Before a Specific Future Point</u>	1,2,3,4,5,10,11,15,17,19,25,28,36,37,59,70	<u>An Action that will take place at a Specific Pre-Future Point</u>
(B) <u>A Specific Future Point</u>	6,8,26,30,45,48,53	<u>As in (A) above</u>

contd...

Table 40 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(C) <u>Before an Un-specific Future Point</u>	7, 44, 49, 51, 60, 62, 50	<u>An Action that will take place at an Unspecific Pre-Future Point</u>
(D) <u>An Unspecific Future Point</u>	14, 23, 52	<u>As in (C) above</u>
(E) <u>Before an Un-specified Point</u>	a. <u>Specific</u> : 9, 18, 21, 22, 29, 32, 34, 38, 42, 43, 47, 61, 63, 69 b. <u>Unspecific</u> : 31, 55, 58	a. <u>As in (A) above</u> b. <u>As in (C) above</u>
(F) <u>An Unspecified Point of Time</u>	a. <u>Specific</u> : 12, 13, 24, 27, 35, 39, 56, 66, 68 b. <u>Unspecific</u> : 33, 41, 46	a. <u>As in (A) above</u> b. <u>As in (C) above</u>
(G) <u>After an Un-specified Point of Time</u>	16	<u>An Action that take place before a Specific Point at Post-Future</u>
(H) <u>Before a Point within Daytime Period</u>	20, 64	<u>As in (A) above</u>

contd...

Table 40 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(I) <u>After a Point within Daytime Period</u>	54	<u>As in (G) above</u>
(J) <u>After an Unspecific Future Point</u>	57	<u>Before an Unspecific Point at Post-Future</u>

TABLE 41

14. WOULD HAVE GONE (Pre-Later Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Past Point of Time</u>	4,5,9,14,15,17,19,20,21,24,30,32,35,39,41,43,47,48,52,56,58,59,66,68,69	<u>An Imaginary or Hypothetical Past Action</u>
(B) <u>Daytime Period</u>	a. 7,8,29 (<u>if</u> + Earlier Past; or <u>but</u> + Basic Past) b. 11,23 (<u>if</u> + Basic Past)	a. <u>As in (A) above</u> b. <u>A Hypothetical Future</u>

contd...

Table 41 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(C) <u>Before a Point in the Past</u>	2,70	<u>A Hypothetical Pre-Past</u>
(D) <u>A Future Point</u>	6,28,49,60,61	<u>As in (Bb) above</u>
(E) <u>An Unspecified Point of Time</u>	a.10 (<u>if</u> + Basic Past) b.16,38,65	a. <u>As in (Bb) above</u> b. <u>As in (A) above</u>
(F) <u>After an Unspecified Point of Time</u>	18,42,44,57	<u>A Hypothetical Post-Past</u>
(G) <u>After a Point in the Past</u>	31,53	<u>As in (F) above</u>
(H) <u>Contemporaneous Present</u>	36	<u>As in (A) above</u>
(I) <u>Before an Unspecified Point of Time</u>	26,33,37,45,51	<u>As in (A) above</u>
(J) <u>Simultaneous Present</u>	50	<u>A Hypothetical Present or Recent Past</u>
(K) <u>Before Simultaneous Present</u>	13	<u>As in (A) above</u>

TABLE 42

15. WILL HAVE BEEN WORKING (Simultaneous Pre-Later Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Duration (Duration Specific)</u>	13,27,41,54,62,64	<u>An Activity that will continue up to an Unspecific Future Point</u>
(B) <u>Before an Unspecified Point</u>	3,12,16,38	<u>An Activity that will be going on up to an Unspecific Pre-Future Point</u>
(C) <u>Up to an Unspecified Point</u>	a. <u>Specific</u> :4,21	a. <u>An Activity that will continue up to a Specific Future Point</u>
	b. <u>Unspecific</u> :65,	b. <u>As in (A) above</u>
(D) <u>Before a Future Point (Specific Duration)</u>	5,6,28,29,31,36,37,39,46,55,56,58,59,61,69,70	<u>An Activity that will be going at a Specific Pre-Future Point</u>
(E) <u>Before an Unspecified Point (Specific Duration)</u>	a. <u>Specific</u> :1,17,18,19,24,25,26,32,33,42,44,48,50,51,63,66,67,	a. <u>As in (D) above</u>
	b. <u>Unspecific</u> :47,60	b. <u>As in (B) above</u>

contd...

Table 42 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(F) <u>Before an Un-specific Future Point</u>	14	<u>As in (B) above</u>
(G) <u>Up to a Future Point (Specific Duration)</u>	a. <u>Specific</u> : 8, 9, 11, 15, 40, 49 b. <u>Unspecific</u> : 20, 23	a. <u>An Activity that will continue up to a Specific Future Point</u> b. <u>As in (A) above</u>
(H) <u>Up to the Moment of Speech (Specific Duration)</u>	22	<u>A Past Activity still going on up to M.O.S.</u>
(I) <u>Before a Point at Daytime Period (Specific Duration)</u>	7, 52, 57	<u>As in (D) above</u>
(J) <u>At Daytime Period</u>	68	<u>An Activity that will continue up to a Point at Near Future</u>
(K) <u>Daytime Duration</u>	2, 43, 45	<u>As in (J) above</u>

TABLE 43

16. WOULD HAVE BEEN GOING (Simultaneous Pre-Later Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Future Point</u>	3,6,7,8,11,16,23,25,28,30,38,40,47,48,49,50,55,56,57,58,63,65,70	<u>A Hypothetical Action or State in the Future</u>
(B) <u>An Unspecified Point</u>	9,10,13,24,43,62	a. <u>A Hypothetical Past</u> b. <u>As in (A) above</u>
(C) <u>A Past Point</u>	2,32,39,54,68,69	<u>As in (Ba) above</u>
(D) <u>After a Past Point</u>	12,15	<u>A Hypothetical Post-Past</u>
(E) <u>Daytime Period</u>	18,20,26,35,52,66	<u>Hypothetical Present or Near Future</u>
(F) <u>Contemporaneous Present</u>	27,36	<u>As in (E) above</u>
(G) <u>Simultaneous Present</u>	31,45	<u>As in (E) above</u>

contd...

Table 43 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(H) <u>After an Un-</u> <u>specified Point</u>	33,37,42	<u>As in (D) above</u>
(I) <u>An Unspecified</u> <u>Frequency</u>	60	<u>Hypothetical Past</u> <u>(Specific Fre-</u> <u>quency)</u>
(J) <u>Before Simulta-</u> <u>neous Present</u>	29	<u>As in (Ba) above</u>

(D) Conclusions

I. Conclusions from Data-Analysis of Test Two

In Test Two, the use of temporal adverbials is optional according to the instructions of this test, i.e. temporal adverbials are only compulsorily required when the tenseme itself is unable to indicate the temporal value given by the notional cue in the test. It may thus be useful to report what variety of adverbials and what specific adverbials co-occur with each tenseme. However, any full analysis of tenseme-adverbial co-occurrences does not seem to be productive in the case of the data of Test Two. This is so because in the majority of cases, it has been found that the notional cue given opposite each sentence in the test was itself erroneously assumed by some informants as part of the sentences themselves. This misunderstanding on part of many subjects has made them feel not required to include any temporal adverbials in most or all of their sentences even where the presence of such adverbials was absolutely required by the inability of a given tenseme to indicate a specific temporal value on its own. Consequently, no reliable description of the frequency of specification can be provided in such circumstances. Nevertheless, any existing specification is reported in the following tables. This is important

since co-occurrences of the same tenseme with different adverbials of time may indicate different functions, as may be seen from the tables below.

Tables 44 and 45 below present a summary of the twenty five tables previously reported in the data-analysis of Test Two. They are different in that Table 44 uses the notional cues or categories provided by the test as the basis for identifying all the possible tenseemes that can represent the temporal value of each cue linguistically. Table 45, on the other hand, is more relevant to our purposes though in fact it is only a product of Table 44. In Table 45, the tenseemes themselves are taken as the basis of analysis and for each tenseme, all the notional categories it represents, i.e. its functions, are listed. In both tables a frequency count of occurrence is also given. This frequency count is especially important in the second table below since it gives an idea of what functions of a certain tenseme are more frequently performed by that tenseme than by others. This will give us a fairly good approximation of the systematic functions of tenseemes and the non-systematic ones, since the former category of functions tend to be more frequently performed by a given tenseme than by others as such tenseemes are formally indicated by the temporal morphemes of that tenseme in the general framework of the tense system in any language.

The following are the two tables just described above:

TABLE 44

Notional Category (Function) ⁸	Representative Tense(s) ⁹	Frequency
1	1 + 5 + 11	2 + 50 + 2
2	2	53
3	1 + 7	1 + 53
4	1 + 3 + 7 + 9	50 + 1 + 2 + 1
5	5 + 7 + 11	30 + 1 + 3
6	2 + 6	51 + 3
7	1	54
8	2 + 3 + 13 + 14	15 + 24 + 4 + 5
9	5 + 6 + 11	42 + 5 + 7
10	2 + 4 + 8 + 10	15 + 1 + 30 + 4
11	1 + 5 + 6 + 13	2 + 21 + 2 + 28
12	2 + 4 + 14	22 + 30 + 1
13	2	54
14	1 + 3 + 7	27 + 23 + 4
15	2 + 6	4 + 50

contd...

⁸The numbers of notional categories are as they appear on the Test Two sheet which has been reproduced on pp. 35-37.

⁹Numbers are given to various tenseemes according to Table 2 on page 231.

Table 44 contd.

Notional Category (Function)	Representative Tenseme(s)	Frequency
16	2 + 6	49 + 1
17	8	54
18	1 + 7	46 + 6
19	1 + 5 + 6 + 7 + 11	7 + 25 + 3 + 10 + 6
20	1 + 5 + 7	6 + 2 + 48
21	5 + 11	13 + 41
22	1 + 7	2 + 52
23	2 + 8	41 + 10
24	6	52
25	5 + 7	53 + 1

TABLE 45

Representative Tenseme	Represented No- tional Category	Frequency
1	1 + 3 + 4 + 7 + 11 + 14 + 18 + 19 + 20 + 22	2 + 1 + 50 + 54 + 2 + 27 + 46 + 7 + 6 + 2
2	2 + 6 + 8 + 10 + 12 + 13 + 15 + 16 + 23	53 + 51 + 15 + 14 + 22 + 54 + 4 + 49 + 51

contd...

Table 45 contd.

Representative Tenseme	Represented No- tional Category	Frequency
3	4 + 8 + 14	1 + 24 + 23
4	10 + 12	1 + 30
5	1 + 5 + 9 + 11 + 19 + 20 + 21 + 25	50 + 30 + 42 + 21 + 25 + 2 + 13 + 53
6	6 + 9 + 11 + 15 + 16 + 19 + 24	3 + 5 + 2 + 50 + 1 + 3 + 52
7	3 + 4 + 5 + 14 + 18 + 19 + 20 + 22 + 25	53 + 2 + 1 + 4 + 6 + 10 + 48 + 52 + 1
8	10 + 17 + 23	30 + 54 + 10
9	4	1
10	10	4
11	1 + 9 + 19	2 + 7 + 6
12	-	-
13	8 + 11	4 + 28
14	8 + 12	5 + 1
15	-	-
16	-	-

II. Conclusions From Data-Analysis of Test Three

In way of conclusion, the sixteen tables already given in reporting the data-analysis of Test Three can all be summarized in the following unified table in which the notional uses, i.e. the functions, of tenseemes are taken as the basis of analysis. For each function, i.e. a different value indicated in the data by a different adverbial category, all the tenseemes that can linguistically represent it are listed,

TABLE 46

The Function	The Representative Tenseme(s)*	Number of Occurrences
To indicate: 1. An Action/State that took place or was to take place at a Specific Point in the Past	2 + 8	43 + 47

contd...

*The figures in this column stand for the actual English tenseemes given in Test Three and in the same sequence in which they have already appeared in the sixteen tables on the data-analysis of Test Three.

Table 46 contd.

The Function	The Represent- ative Tense(s)	Number of Occurrences
2. An Action/State that took place or was taking place at an Un- specific Point of Time in the Past	2 + 8 + 3	5 + 4 + 7
3. An Action/State that Follows an- other in the Past	2 + 8	10 + 4
4. An Action/State that Precedes an- other in the Past	2 + 4 + 8 + 10	2 + 43 + 3 + 57
5. A Frequent Action in the Past	2 + 3(unspecific past) + 6 + 12	2 + 4 + 2 + 2
6. A Tentative Future	2 + 6 + 12	1 + 34 + 14
7. An Action/State that Follows an- other (as viewed from a Point in the Past)	6 + 12	11 + 18
8. An Imaginary or Hypothetical Fu- ture Action/State	6 + 12 + 14 + 16	11 + 9 + 8 + 28

contd...

Table 46 contd.

The Function	The Representative Tense(s)	Number of Occurrences
9.A General Habit or Fact (seen as Timeless)	1 + 7 + 9	36 + 10 + 1
10.An Action/State Going on During a Period of Time in the Past	8	3
11.A Tentative Post-Future	12	2
12.A Tentative Pre-Future	12	2
13.A Hypothetical Pre-Future	12	2
14.A Hypothetical Present or Near Future	12 + 16	9 + 10
15.A Tentative Present or Near Future	12	3
16.An Action/State Continued up to a Point in the Past	10	7
17.A Hypothetical Past	10 + 14 + 16 + 4	1 + 39 + 9 + 3

contd...

Table 46 contd.

The Function	The Representative Tense(s)	Number of Occurrences
18. A Hypothetical Present or Recent Past	14	1
19. A Hypothetical Post-Past	14 + 16	6 + 5
20. A Hypothetical Pre-Past	14	2
21. An Action/State that will take place or will be taking place at a Specific Future Point	1 + 5 + 7 + 11	18 + 29 + 22 + 37
22. An Action/State that will take place at an Unspecific Future Point	1 + 5 + 7 + 11	3 + 10 + 22 + 16
23. An Action/State taking place at Simultaneous Present	1 + 7	3 + 33
24. An Action/State that will take place <u>after</u> a Point in the Future	1 + 5 + 11	2 + 7 + 6

contd...

Table 46 contd.

The Function	The Representative Tense(s)	Number of Occurrences
25. An Action/State that will take place <u>before</u> a Point in the Future	1 + 3 + 5 + 11 + 13	1 + 2 + 17 + 5 + 59
26. An Action/State taken place at an Unspecific Point at Recent Past	3	11
27. An Action/State taken place at an Unspecific Point at Post-Past	3	2
28. A Continuous Action/State that goes on up to a Future Point	7 + 9 + 15	1 + 1 + 17
29. A Continuous or Repeated Action through a Period of Time in the Future	11	1
30. An Activity Continuing up to Simultaneous Present	9 + 15	59 + 1

contd...

Table 46 contd.

The Function	The Representative Tense(s)	Number of Occurrences
31. An Action/State that will take place <u>before</u> a Point at Post-Future	13	3
32. An Action/State that will be going on up to a Pre-Future Point	15	43
33. An Activity that will continue up to a Point at Near Future	15	4
34. An Action/State that takes place within Contemporaneous Present	7	3

A cursory look at Table 44 above reveals many noteworthy facts about the English tense system and the functions of its tenseemes. First, most of the

notional temporal categories are linguistically represented by more than one tenseme. That is to say, two or more particular tenseemes may be used to indicate the same temporal significance in English. Thus the English tense system may be said to be redundant to some extent.

A second interesting fact that comes up in the above-mentioned table is that the same tenseme may appear as a possible linguistic representative of more than one notional category. This again shows that in the English tense system, there is no one-to-one relationship, i.e. there is rarely found a temporal category that can only be represented in English by one specific tenseme. Conversely, there is no tenseme in English that has one function only, i.e. that exclusively indicates one specific temporal value.

Thirdly, in the overwhelming majority of cases in Table 46 above, it can be observed that the expanded and non-expanded counterparts of any tenseme tend to co-occur in the same temporal situations. Thus in Table 46, the two pairs of tenseemes 1 - 7 and 14 - 16 tend to occur together in representing various temporal categories. This overlapping of functions between the expanded and the non-expanded counterparts of tenseemes shows how greatly similar such tenseemes are as far as their temporal values are concerned. Yet, there are certain temporal situations, as can be seen from the

above table, that specifically require the presence of expanded tenseemes for example.

Fourthly, it can also be concluded that a fairly comprehensive description of functions of tenseemes may be achieved by referring to and classifying the various temporal adverbials when studying and analyzing the structure of the tense system in English. The above conclusion can also be verified by all the tables which appear in reporting the data of Test Three since all these tables are based upon an analysis of the phenomenon of specification, i.e. tenseme-adverbial co-occurrences in English.

The functions of various tenseemes as well as the various functions of each tenseme can perhaps more clearly be seen if the tenseemes themselves, rather than the notional temporal categories, are taken as the basis of classification in summarizing the sixteen tables reported for the data of Test Three. Such a table would basically represent the same information of Table 46 looked at from a different angle.

In the following table, numbers are used to represent the various tenseemes in the same manner in which they are used in Table 46 above. The numbers in the column of functions in Table 47 below refer to the functions which appear in Table 46 and in the same sequence in which they appear in that table.

TABLE 47

The Tenseme	Its Function(s)	Frequency
1	9 + 22 + 23 + 24 + 25 + 26	36 + 18 + 3 + 3 + 2 + 1
2	1 + 2 + 3 + 4 + 5 + 6	43 + 5 + 10 + 2 + 2 + 1
3	2 + 5 + 26 + 27 + 28	7 + 4 + 2 + 11 + 2
4	4	46
5	22 + 23 + 25 + 26	29 + 10 + 7 + 17
6	5 + 6 + 7 + 8	2 + 34 + 11 + 11
7	9 + 22 + 23 + 24 + 30 + 36	10 + 22 + 22 + 30 + 1 + 3
8	1 + 2 + 3 + 4 + 10	47 + 4 + 4 + 3 + 3
9	30 + 32	1 + 60
10	4 + 17 + 18	57 + 7 + 1
11	22 + 23 + 25 + 26 + 31	37 + 16 + 6 + 5 + 1
12	5 + 6 + 7 + 8 + 11 + 12 + 13 + 14 15 + 16	2 + 14 + 18 + 9 + 2 + 2 + 2 + 9 + 3 + 2
13	26 + 33	59 + 3
14	8 + 18 + 20 + 21	8 + 39 + 6 + 2
15	30 + 2 + 34 + 35	17 + 1 + 43 + 4
16	8 + 14 + 18 + 20	28 + 10 + 9 + 5

From comparing the functions of expanded and non-expanded tenseemes in Table 47 above, an even clearer picture of the temporal relatedness between the two varieties of tenseemes can be obtained. The functions of expanded tenseemes are usually indicated in the table by their non-expanded counterparts. This is understandable when it is remembered that expanded tenseemes have the same temporal morphemes as their non-expanded counterparts. Besides, expanded tenseemes have the additional aspectual morpheme {N}.

The complex interrelationships between tenseemes and functions can also be seen in the above table. Each tenseeme usually has more than one function, and the same function can usually be linguistically performed by more than one tenseeme.

III. Inventory of Functions and General Conclusions

Tests Two and Three and their respective data are in a sense complementary. Test Three guarantees that all English tenseemes are used by the informants to indicate various functions. It, however, cannot guarantee that some of the systematic, or non-systematic, functions of some tenseemes may not be missing in the responses of the subjects tested. On the other hand, Test Two makes sure that all major temporal values and relations, i.e.

functions, will be linguistically represented by the various tenseemes. Yet, it cannot prevent that some of the tenseemes might only be used in very few cases or in fact completely missing as it actually happened in the case of such tenseemes as will have been writing and would have been writing. It/^{is}thus conducive to a better understanding to synthesize the conclusions of both tests to arrive at a fuller description of tenseemes and their functions in English.

For the purposes of the above-mentioned synthesis, tables 45 and 47 on the functions of tenseemes from Tests Two and Three respectively are used. An individual description is worked out below for each tenseeme with all the different functions of that tenseeme which occur in both tables 45 and 47. It is perhaps needless to point out that identical functions found in both tables for any one tenseeme are only listed once in the following individual descriptions of tenseemes. Simultaneous with the listing of functions, the functions of each tenseeme are subdivided into systematic and non-systematic. The criterion used for sorting out systematic versus non-systematic functions of tenseemes is, as has already been pointed out on page 221, that any function of a given tenseeme is systematic if the temporal formal markers of that tenseeme entitle it to indicate that function in the framework of the general tense system and according

to the complementary distribution of tenseemes. Conversely, any function of any tenseme which is basically performed by any other tenseme in the tense structure or which cannot be deduced from the formal temporal markers alone is a non-systematic function.

BASIC PRESENT: e.g. WRITES

(A) Systematic Functions

1. To indicate Simultaneous Present

Frequency¹⁰: 25 + 3

Co-occurrent Adverbials: now; right now; at this time of the night; ...

Examples from the Data

(a) At the moment the clock goes quite well. (3.48)*

(b) It goes now. (3.60)*

(c) He is almost finished right now. (2.14)*

2. To indicate Contemporaneous Present

Frequency: 46 + None

¹⁰The two figures given hereafter for frequency refer to the number of occurrences of any tenseme in that specific function in the data of tests Two and Three respectively.

*In the parentheses which follow sentences quoted from the data, the initial number of 2 or 3 refers to the data of Test Two or Three respectively, whereas any numbers that follow either of these refer either to the number of the sentence quoted from the examples of any specific tenseme in the Appendix in the case of Test Three or to the number of the notional category in the data of Test Two reported on pp. 232-267.

Co-occurent Adverbials: nowadays; these days; ...

Examples:

(a) He works hard nowadays. (2.18)

(b) He does not work hard these days. (2.18)

3. To express a Current Habit

Frequency: 50 + 37

Adverbials: often; usually; always; everyday; regularly;

...

Examples:

(a) Each morning he goes to work by train. (3.1)

(b) He goes everywhere with the dog at weekends. (3.4)

(c) She goes to a dance every Saturday. (3.38)

(d) He goes to the Union every day. (3.54)

(e) He always comes here. (2.4)

4. To indicate a General Fact

Frequency: 54 + 1

Adverbials: all day; ...

Examples:

(a) The clock goes all day only if I wind it up in the morning. (3.39)

(b) Light travels faster than sound. (2.7)

(B) Non-systematic Functions

1. To refer to a Future Time

Frequency: 9 + 19

Adverbials: tomorrow; in the morning; in July; at

11 o'clock sharp; ...

Examples:

- (a) He goes home tomorrow. (3.6)
- (b) He goes to London tomorrow evening. (3.36)
- (c) I leave at 2.00. (2.1)
- (d) I leave tomorrow. (2.1)

2. To refer to a time before a Point in the Future

Frequency: 2 + 1

Adverbials: before June; ...

Examples:

- (a) If he goes before I do, then he shall be first. (3.49)
- (b) John finishes before June. (2.11)

3. To refer to a Time after a Point in the Future

Frequency: None + 2

Adverbials: after we leave; ...

Examples:

- (a) If he goes after we come then we shall stay until morning. (3.43)
- (b) He always goes there after we leave. (3.53)

BASIC PAST: e.g. WROTE

(A) Systematic Functions

1. To refer to a Specific Point in the Past

Frequency: 53 + 48

Adverbials: yesterday; an hour ago; last night;

when he arrived; earlier today; ...

Examples:

- (a) Last night, when I returned from the library, I had a stroll with Rover. (3.1)
- (b) Yesterday she went into town. (3.8)
- (c) When he arrived, we went out. (3.60)
- (d) I went today. (3.3)
- (e) He left ~~am~~ exactly an hour ago. (2.2)

2. To refer to General Past

Frequency: 66 + None

Adverbials: once; sometime; at some time or other; ...

Examples:

- (a) I once saw this film. (2.8)
- (b) I saw this film sometime. (2.8)

3. To indicate Frequency in the Past

Frequency: 5 + 2

Adverbials: whenever we arrive^d; often; usually; always; ...

Examples:

- (a) Whenever we arrived, we went to the cinema. (3.38)
- (b) She often went to the clinic at 7.00. (3.46)
- (c) We usually went by bus. (2.6)
- (d) We always went by bus. (2.6)

4. To indicate Duration in the Past

Frequency: 51 + None

Adverbials: all the time; all day; for a long time;...

Examples:

- (a) He read all that time. (2.23)
- (b) He read all day. (2.23)
- (c) He read for a long time. (2.23)
- (d) He read all day yesterday. (2.23)

(B) Non-systematic Functions

1. To refer to a Time after a Point in the Past

Frequency: 103 + 10

Adverbials: again; two hours later; later; ...

Examples:

- (a) I went home after I collected my car from the garage. (3.31)
- (b) Fred went back to the pub after we arrived home. (3.61)
- (c) After leaving the lecture, I went for my lunch. (3.23)
- (d) I met him again two hour later. (2.13)
- (e) I met him two hours after we parted. (2.13)

2. To refer to a Time before a Point in the Past

Frequency: 36 + 2

Adverbials: before John arrived; earlier than I did;
before the storm broke; ...

Examples:

- (a) They went away before the storm broke. (3.55)
- (b) I went shopping before he arrived. (3.49)
- (c) She left before John arrived. (2.12)

(d) I talked to him before I met you. (2.10)

3. To indicate a Tentative Future (with if)

Frequency: None + 1

Adverbials: tomorrow; ...

Examples:

(a) If he went tomorrow, it would not be soon enough.
(3.10)

EARLIER PRESENT: e.g. HAVE WRITTEN

(A) Systematic Functions

1. To refer to a Point of Time Unspecifically Earlier than the Present Moment

Frequency: 23 + 7

Adverbials: before; already; early; ...

Examples:

(a) We have gone early to avoid the rush. (3.13)

(b) I have gone to the pictures before. (3.28)

(c) I have seen this film before. (2.8)

2. To refer to an Unspecific Point at Recent Earlier Present

Frequency: 1 + 11

Adverbials: now; today; this evening; just; ...

Examples:

(a) They have gone now. (3.1)

(b) If I have gone wrong today, perhaps I may do
better tomorrow. (3.43)

(c) I have just seen this film. (2.8)

3. To indicate Frequency at Earlier Present

Frequency: 1 + 4

Adverbials: regularly every evening; in the morning;
always; ...

Examples:

(a) They have gone regularly every evening. (3.23)

(b) I have come down the same road in the morning
for about a year. (3.25)

(c) I have gone there often. (3.64)

(d) He has always come here. (2.4)

(B) Non-Systematic Functions

1. To refer to an Unspecific Point at Post-Past

Frequency: None + 2

Adverbials: after having waited since 12 o'clock;
after working all day; ...

Examples:

(a) They have gone away after having waited since
12 o'clock. (3.15)

(b) After working all day I have gone home. (3.42)

2. To refer to an Unspecific Point which Precedes
another Point in the Future (with temporal conjunc-
tions)

Frequency: None + 2

Adverbials: when you arrive; tomorrow; ...

Examples:

(a) If I have gone when you arrive, will you please follow. (3.20)

(b) Tomorrow when I have gone home, you will find a letter waiting for you. (3.52)

3. To indicate Simultaneous Perceivable Activity

Frequency: 23 + None

Adverbials: right now; ...

Examples:

(a) He has almost finished right now. (2.14)

EARLIER PAST: e.g. HAD WRITTEN(A) Systematic Functions1. To refer to a Point that Precedes another in the Past

Frequency: 31 + 46

Adverbials: when he arrived; before the children came; ahead of schedule; two years previously; by Tuesday morning; already; ...

Examples:

(a) When he arrived, I had finished working. (3.6)

(b) When the bell sounded, everyone had finished the exercise. (3.33)

(c) Mrs Jones had finished her housework before the children came home from school. (3.40)

(d) The game had finished ahead of schedule. (3.57)

(e) We had only just finished before it began to rain. (3.67)

(f) He had finished his work two years previously. (3.62)

(g) By Tuesday morning, he had finished his task. (3.69)

(h) She had left before then. (2.12)

(i) She had left before the train pulled out. (2.12)

(j) She had already left. (2.12)

(B) Non-systematic Functions

1. To indicate a Hypothetical Past (with if)

Frequency: None + 3

Adverbials: yesterday; an hour ago; this morning; ...

Examples:

(a) If I had finished sooner, I could have gone out to the cinema. (3.10)

(b) If you had finished that this morning, you could have gone home now. (3.32)

(c) If we had finished yesterday then today we could have done something else. (3.49)

LATER PRESENT: e.g. WILL WRITE

(A) Systematic Functions

1. To indicate a Specific Point in the Future

Frequency: 63 + 29

Adverbials: tomorrow; at the end of this year; in half an hour; tonight; at midday; ...

Examples:

- (a) This programme will finish in half an hour. (3.1)
- (b) I will finish tomorrow. (3.3)
- (c) I will finish this book tonight. (3.36)
- (d) We will finish this year. (3.27)
- (e) I will leave at midday. (2.1)
- (f) I will leave in the morning. (2.1)

2. To refer to an Unspecific Point in the FutureFrequency: 67 + 10Adverbials: soon; when he arrives; sometime; later;...Examples:

- (a) I'm not certain that he will finish on time. (3.9)
- (b) I will finish this sentence soon. (3.10)
- (c) I will finish as early as possible. (3.56)
- (d) When we are tired we will finish. (3.12)
- (e) He will finish the job when he arrives. (3.43)
- (f) She will arrive sometime. (2.9)
- (g) She will arrive later. (2.9)
- (h) He will leave anytime now. (2.19)

(B) Non-systematic Functions1. To refer to a Time After a Point in the FutureFrequency: 83 + 7

Adverbials: after the exams; after lunch; after the guests have gone home; after that; after we meet tomorrow; when I have completed my degree; ...

Examples:

- (a) I will finish working very hard after the exams. (3.14)
- (b) I will finish the job after tea. (3.65)
- (c) I will finish this after we have gone for a coffee. (3.54)
- (d) We will leave together after that. (2.25)
- (e) We will leave together after we meet tomorrow. (2.25)
- (f) I will leave when I have completed my degree. (2.25)

2. To refer to a Time Before a Point in the FutureFrequency: 21 + 17

Adverbials: by next week; before I go to bed; by this evening; by then; before the time is up; ...

Examples:

- (a) I will finish my knitting before I come. (3.4)
- (b) "We will finish the bridge by next year," said the site controller. (3.19)
- (c) I will finish the book before I go to bed. (3.37)
- (d) I will finish before you unless you hurry. (3.50)
- (e) I will finish knitting this cardigan by the end of this week ... (3.52)
- (f) John will finish by then. (2.11)
- (g) John will finish before the bell rings. (2.11)

LATER PAST: e.g. WOULD WRITE(A) Systematic Functions1. To indicate an Intended Action at Later Past

Frequency: 53 + 11

Adverbials: later; again; after he had completed his exercise; after we arrived; not before he had finished; this morning; tonight; tomorrow; next week; ...¹¹

Examples:

- (a) He said that he would go to the movies this morning. (3.1)
- (b) He said he would go tomorrow evening. (3.7)
- (c) He said he would go after we arrived. (3.60)
- (d) I promised that I would go later. (2.24)
- (e) I promised that I would go again. (2.24)

(B) Non-systematic Functions

1. To indicate a Future Time (suggesting doubt or tentativeness)

Frequency: None + 34

Adverbials: soon; next week; tomorrow; after your friend arrives; ...

Examples:

- (a) They would go when they have finished if they could. (3.17)
- (b) If he came, I would go soon. (3.23)

¹¹ Adverbials like the last four ones co-occur with the Later-Past tense in this function only in the case of reported speech.

- (c) She would go skiing in winter. (3.27)
- (d) I would go next week if I could. (3.8)
- (e) I would go during the day rather than in the evening. (3.26)

2. To indicate an Imaginary or Hypothetical Future State/Action (with if, but or only)

Frequency: None + 11

Adverbials: next week; tomorrow; after tea; today; just now; ...

Examples:

- (a) I would go with you but I have something else to do this evening. (3.36)
- (b) We would go next week but we will be on holiday. (3.4)
- (c) We would go to the cinema after tea if we weren't committed to ... (3.37)
- (d) I would go today, but I don't have time. (3.25)
- (e) I would go just now gladly but I have to wait until next week ... (3.44)

3. To indicate a Past Habit

Frequency: 3 + 2

Adverbials: normally; each day; always; usually; ...

Examples:

- (a) Before leaving, I would go to see my mother normally. (3.16)
- (b) Each day, he would go for a swim in the Kelvin. (3.47)

- (c) We would always come by bus. (2.6)
 (d) We would come by bus usually. (2.6)

SIMULTANEOUS PRESENT: e.g. IS WRITING

(A) Systematic Functions

1. To indicate a Point at Simultaneous Present, i.e. the Moment of Speech

Frequency: 105 + 30

Adverbials: now; just now; at the moment; at present;
 today; presently; still; ...

Examples:

- (a) He is reading now. (3.3)
 (b) The girl is reading a book today. (3.2)
 (c) He is reading this book before his lunch. (3.10)
 (d) Someone is reading a novel during this lecture. (3.45)
 (e) ... he is still reading. (3.40)
 (f) They are reading at present. (2.3)
 (g) He is listening to music right now. (2.22)

2. To refer to Current or Contemporaneous Present

Frequency: 6 + 3

Adverbials: this week; this year; these days; ...

Examples:

- (a) My friend is reading Classics at Oxford this year. (3.68)
 (b) This week David Brown is reading 'Shakespeare' at the Globe Theatre. (3.1)

(c) He is working hard these days. (2.18)

3. To indicate a Current Habit

Frequency: 2 + 10

Adverbials: usually; at every opportunity; always;...

Examples:

- (a) She is reading the news bulletin in the morning. (3.6)
- (b) Usually, when I come he is reading. (3.13)
- (c) She is always reading whenever we see her. (3.53)
- (d) She is reading the book whenever she gets the chance. (3.56)

(B) Non-systematic Functions

1. To indicate a Point in the Future (suggesting a Planned-for Action)

Frequency: 10 + 22

Adverbials: soon; later; in ten minutes; in the morning; next year; this week; ...

Examples:

- (a) She is reading the news bulletin in the morning.¹² (3.6)
- (b) He is reading the weather forecast tomorrow. (3.19)
- (c) He is reading French next year. (3.61)
- (d) She is reading a paper next week. (3.70)
- (e) He is leaving in ten minutes. (2.19)
- (f) He is leaving soon. (2.19)

¹²This same sentence has already appeared under another function of Simultaneous Present. This means that there is some ambiguity in the temporal reference of such sentences.

2. To refer to a Continuous Action/State which Extends up to a Point in the Future

Frequency: None + 1

Adverbials: until we return; ...

Examples:

(a) Peter is reading until we return. (3.33)

SIMULTANEOUS PAST: e.g. WAS WRITING

(A) Systematic Functions

1. To indicate Simultaneity of an Action/State with a Point or an Action/State in the Past

Frequency: 54 + 50

Adverbials: last night; when he arrived; recently;
at that point; at that moment; ...

Examples:

(a) She was reading a magazine when he arrived. (3.2)

(b) I was reading the Sunday Times last night. (3.11)

(c) When the clock struck three I was reading a book. (3.16)

(d) While I was reading a paper recently, it went
on fire. (3.47)

(e) He was studying at that moment. (2.17)

2. To express Duration in the Past

Frequency: 10 + 3

Adverbials: all morning; for some time; all day
yesterday; ...

Examples:

- (a) I was reading the book all morning. (3.17)
- (b) I was reading for some time. (3.41)
- (c) He was reading all day yesterday. (2.23)

(B) Non-Systematic Functions1. To refer to a Duration Earlier than a Point/Period in the PastFrequency: 30 + 3

Adverbials: before you came home; until he came;
before that; ...

Examples:

- (a) I was reading the book first before you came home. (3.55)
- (b) I was reading this book until he came. (3.66)
- (c) I was talking to him before that. (2.10)
- (d) I was talking to him before I met you. (2.10)

2. To refer to a Duration Later than a Point/Period in the PastFrequency: None + 2

Adverbials: after I had come home; after the sun
had risen; ...

Examples:

- (a) After I had come home I was reading that article
which ... (3.52)
- (b) He was reading the book after the sun had risen. (3.53)

SIMULTANEOUS EARLIER-PRESENT:e.g. HAS BEEN WRITING(A) Systematic Functions

1. To indicate an Action/State that was Going on in the Past and is Still Continuing at Simultaneous Present

Frequency: 1 + 60Adverbials: for over a week now; all day; since the morning; for ages; lately; for some time; ...Examples:

- (a) He has been working on that car for over a week now. (3.1)
- (b) She has been working all day in preparation for the forthcoming examinations. (3.2)
- (c) He has been working at that essay for ages. (3.10)
- (d) He has been working non-stop since yesterday. (3.67)
- (e) She has been working constantly. (3.60)
- (f) He has been coming here for some time. (2.4)

(B) Non-systematic Functions

1. To indicate an Action/State Continuing up to a Future Point

Frequency: None + 1Adverbials: at three o'clock... for three hours; ...Examples:

- (a) If, at three o'clock, Jean has been working for three hours, I will not disturb her. (3.16)

SIMULTANEOUS EARLIER-PAST: e.g.HAD BEEN WRITING(A) Systematic Functions

1. To indicate an Action/State which began Earlier than, and still Continuing Simultaneous with, another Action or a Point/Period in the Past

Frequency: None + 75

Adverbials: when she arrived; for some time when the phone began to ring; all through the night; yesterday; until sunrise; ...

Examples:

- (a) I had been reading the Celtic View early on Wednesday morning. (3.13)
- (b) They had been reading when the bell rang. (3.15)
- (c) I had been reading all day. (3.26)
- (d) I had been reading that part of the book only yesterday. (3.25)
- (e) Jane had been reading until there was a power cut. (3.66)

2. To express Duration of an Action/State Before Another in the Past

Frequency: 4 + 7

Adverbials: before his arrival; before lunch; before he went to bed; already; ...

Examples:

- (a) He had been reading it quickly before lunch. (3.42)

- (b) He had been reading before we arrived. (3.70)
- (c) Yesterday, before he arrived I had been reading the magazine ... (3.52)
- (d) I had already been talking to him. (2.10)

(B) Non-systematic Functions

1. To suggest a Hypothetical Past (with Conditional Sentences)

Frequency: None + 1

Adverbials: this morning; ...

Examples:

- (a) Had he not been reading the 'Scotsman' this morning then perhaps I could have attempted the crossword. (3.61)

SIMULTANEOUS LATER-PRESENT: e.g.

WILL BE WRITING

(A) Systematic Functions

1. To indicate Simultaneity between an Action/State and another Action or a Point/Period in the Future

Frequency: 15 + 53

Adverbials: next week; tonight; tomorrow; for the next ten years; in the near future; all evening;...

Examples:

- (a) Tomorrow he will be reading the book I lent him. (3.5)
- (b) I will be reading that next term. (3.9)

- (c) He will be reading this for the next ten years. (3.21)
 (d) He will be reading this when we arrive. (3.70)
 (e) I will be reading this book all evening. (3.58)
 (f) He will be leaving shortly. (2.19)
 (g) I will be leaving tomorrow. (2.1)
 (h) She will be arriving some time tomorrow. (2.9)

2. To indicate a Repeated Action through a Period of Time in the Future

Frequency: None + 1

Adverbials: every night this week; ...

Examples:

- (a) Since that exam has been moved forward to next week I will be reading all the texts every night this week. (3.18)

(B) Non-systematic Functions

1. To indicate Duration Before a Point in the Future

Frequency: None + 5

Adverbials: over the next few weeks; before the exams begin; until the visitors come; ...

Examples:

- (a) She will be reading her new novel for about half an hour before she goes to bed. (3.44)
 (b) I will be reading about several topics over the next few weeks before the exams begin. (3.11)

- (c) Fred will be reading until the cock crows at 3.00.
(3.46)
- (d) I will be reading by the time you fetch the
dictionary. (3.55)

2. To indicate a Duration After a Point in the Future

Frequency: None + 6

Adverbials: after I have finished this; tomorrow
evening after you leave; after supper; after sun-
set; ...

Examples:

- (a) He will be reading Chaucer after he finishes
Shakespeare. (3.15)
- (b) I will be reading that book after I have finished
this. (3.20)
- (c) I will be reading my novel tomorrow evening
after you leave. (3.49)
- (d) I will be reading in poor light after sunset.
(3.62)

SIMULTANEOUS LATER-PAST: e.g.

WOULD BE WRITING

(A) Systematic Functions

1. To indicate Simultaneity between an Action/State

Viewed to Follow Another from a Point of Reference

in the Past and between another Action/Point/Period

Frequency: None + 18

Adverbials: early in the morning; tomorrow; yester-
day; this season; when I arrived; ...

Examples:

- (a) We didn't worry about that because he would be leaving in May. (3.19)
- (b) I told him I would be leaving at the end of the month. (3.25)
- (c) He told me that he would be leaving tomorrow. (3.7)
- (d) He said he would be leaving yesterday, but he didn't. (3.47)
- (e) He said he would be leaving whenever he heard the result. (3.65)
- (f) Jim Baxter said he would be leaving Rangers this season ... (3.13)
- (g) When I arrived they would be leaving. (3.24)

(B) Non-systematic Functions

1. To suggest that a Future State/Action is only Imaginary or Hypothetical (with if + not)

Frequency: None + 9

Adverbials: tomorrow; this year; ...

Examples:

- (a) I would be leaving the University on June 1st if it were not for the History of Science degree. (3.66)
- (b) She would be leaving tomorrow had her mother not taken ill. (3.26)
- (c) I would be leaving home this year if I was not working in Glasgow. (3.68)
- (d) We would be leaving tomorrow if it weren't for the rail strike. (3.37)

2. To add Tentativeness, Politeness, or Doubt to a Statement or a Question about a Future State/Action

Frequency: None + 14

Adverbials: in June; soon; in a fortnight; tomorrow; early next week; presently; ...

Examples:

- (a) He would be leaving Scotland in June if he could get the same job elsewhere. (3.11)
- (b) If I could, I would be leaving soon. (3.32)
- (c) He would be leaving in a fortnight. (3.48)
- (d) He would be leaving for the bout at 4.00 p.m. tomorrow. (3.4)
- (e) They would be leaving a week on Saturday. (3.27)
- (f) I would be leaving early next week. (3.43)

3. To indicate a Hypothetical Action/State at Present or Near Future (with if or but)

Frequency: None + 9

Adverbials: now; tonight; today; just now; ...

Examples:

- (a) I would be leaving now if I'd packed. (3.3)
- (b) If I hadn't come down with flu, I would be leaving on the 6.15 train tonight. (3.1)
- (c) We would be leaving just now if they had not arrived five minutes ago. (3.44)
- (d) I would be leaving now, but I still have this sentence to complete. (3.46)

4. To suggest Tentativeness with an Action/State at Post-Future

Frequency: None + 2

Adverbials: after the programme in the morning; soon after school; ...

Examples:

(a) After the programme in the morning, they would be leaving. (3.2)

(b) He would be leaving soon after school. (3.42)

5. To suggest Tentativeness with an Action/State at Pre-Future

Frequency: None + 2

Adverbials: by then; before the exams; ...

Examples:

(a) It would be leaving the station by then. (3.63)

(b) He would be leaving before the exams. (3.70)

6. To indicate a Hypothetical State/Action at Pre-Future (with if or but)

Frequency: None + 2

Adverbials: sooner; earlier; ...

Examples:

(a) I would be leaving sooner if I didn't have to fill this in. (3.23)

(b) I would be leaving earlier, but I am meeting someone at 5 o'clock. (3.28)

7. To indicate a Past HabitFrequency: None + 2Adverbials: normally; ...Examples:

- (a) Normally he would be leaving at the end of the week. (3.6)
- (b) At three o'clock on a Saturday, I would normally be leaving for home. (3.16)

PRE-LATER PRESENT: e.g. WILL HAVE WRITTEN(A) Systematic Functions1. To indicate a Point of Time which Precedes Another in the FutureFrequency: 28 + 59

Adverbials: by tomorrow; next month; before August;
in the morning; in ten minutes; by then; by tonight;
already; ...

Examples:

- (a) By tomorrow he will have finished working on the car. (3.5)
- (b) We will have finished this questionnaire by the time the dinner bell rings ... (3.11)
- (c) Next month I will have finished my portrait. (3.6)
- (d) I sincerely hope that you will have finished decorating your flat when I come to stay. (3.52)

- (e) We will have finished this in about ten minutes.
 (f) John will have finished before I leave. (3.11)
 (g) John will have finished by then. (2.11)

(B) Non-systematic Functions

1. To indicate a Point of Time which Precedes Another at Post-Future

Frequency: None + 3

Adverbials: after nine o'clock; later this afternoon;
 when you come after lunch; ...

Examples:

- (a) After nine o'clock we will have finished our meal. (3.16)
 (b) We will have finished this later this afternoon. (3.54)
 (c) I will have finished my work when you come after lunch. (3.57)

PRE-LATER PAST: e.g. WOULD HAVE WRITTEN

(A) Systematic Functions

1. To refer to a Point of Time which Precedes Another that is Viewed as a Later Point of Time From a Point of Reference in the Past

Frequency: 1 + 2

Adverbials: by the time he reached the station;
 before the situation became critical; ...

Examples:

- (a) By the time he reached the station, the train would have gone. (3.2)

(b) I would have gone before the situation became critical. (3.70)

(c) She would have left (before a specific point at later-past). (2.12)

(B) Non-systematic Functions

1. To suggest Hypotheticalness with an Action/State in the Past (with but or if)

Frequency: None + 39

Adverbials: yesterday; when I finished; last year; today; before; ...

Examples:

(a) I would have gone yesterday but I had so much work to do. (3.4)

(b) We would have gone last year if we had had more time. (3.20)

(c) I would have gone shopping today but I didn't have time. (3.8)

(d) If John had come at three o'clock, I would have gone with him to the pictures. (3.16)

(e) We would have gone before, but it started to rain. (3.33)

2. To indicate Hypotheticalness with an Action/State in the Future (with if)

Frequency: None + 8

Adverbials: tonight; next month; tomorrow; in the morning; ...

Examples:

- (a) I would have gone to the show tonight if I had tickets. (3.23)
- (b) I would have gone to the pictures tomorrow if I had not been doing something else. (3.28)
- (c) He would have gone on the trip tomorrow if it hadn't clashed with his exams. (3.61)
- (d) I would have gone with you in the morning if I had the time or money. (3.10)

3. To indicate Hypotheticalness with an Action/State at a Point which Follows Another Past Point

Frequency: None + 6

Adverbials: after his exam; after I finished my work; afterwards; later; ...

Examples:

- (a) I would have gone for a run after I finished my work if you had not come to see me. (3.31)
- (b) We would have gone later but the meeting made it impossible. (3.44)
- (c) I would have gone home afterwards. (3.42)
- (d) We would have gone after the match if it hadn't rained. (3.57)

4. To suggest Hypotheticalness with an Action/State at Simultaneous Present

Frequency: None + 1

Adverbials: just now; ...

Examples:

- (a) We would have left just now but it is raining.
(3.50)

SIMULTANEOUS PRE-LATER PRESENT

e.g. WILL HAVE BEEN WRITING

(A) Systematic Functions

1. To refer to an Action/State that is Simultaneous with the Moment of Speech and will be Continuous Prior to a Point in the Future

Frequency: None + 64

Adverbials: by then; by tomorrow; by the time you arrive; in ten seconds; till three o'clock; next Friday; today; ...

Examples:

- (a) By tomorrow, the students will have been working for many hours. (3.5)
- (b) In ten seconds, I will have been working at this for five minutes. (3.19)
- (c) Next Friday I will have been working for two weeks. (3.15)
- (d) I will have been working until midnight until this is finished. (3.21)
- (e) We will have been working hard all the year. (3.27)
- (f) My mother will have been working in the house today. (3.68)

(B) Non-systematic Functions

1. To indicate a Past Activity Going up to Simultaneous Present

Frequency: None + 1

Adverbials: for five months now; ...

Examples:

- (a) We will have been working on this building site
for five months now. (3.22)

SIMULTANEOUS PRE-LATER PAST

e.g. WOULD HAVE BEEN WRITING

(A) Systematic Functions

1. To indicate Simultaneity between a Hypothetical
Action/State and a Point/Period that Precedes
Another at Post-Past

Frequency: None + 5

Adverbials: after we had arrived; after you left;
later on; after tea; after the discovery; ...

Examples:

- (a) After we had arrived we would have been going
but I had felt that I was too tired to leave. (3.12)
- (b) They would have been going after you left. (3.15)
- (c) We would have been going later on if the rain
had stopped. (3.33)
- (d) We would have been going to the game after tea
but by that time it had started to rain. (3.37)
- (e) They would have been going abroad after the
discovery if their passports had been in order.
(3.42)

(B) Non-systematic Functions1. To indicate a Hypothetical Action/State in the Future.Frequency: None + 28Adverbials: tomorrow; next month; in the morning;
this weekend; ...Examples:

- (a) Tomorrow I would have been going abroad if I had not taken ill. (3.7)
- (b) I would have been going to London in the morning if this had not happened. (3.10)
- (c) This weekend we would have been going on a trip if the car had not broken down. (3.47)
- (d) I would have been going to Edinburgh tomorrow, but something else turned up. (3.58)

2. To indicate a Hypothetical Action/State in the PastFrequency: None + 9Adverbials: yesterday evening; by now; last week;
last night; on Tuesday evening; ...Examples:

- (a) The couple would have been going out yesterday evening had it not been wet. (3.2)
- (b) I would have been going to get some food by now if I hadn't been told to do this. (3.29)
- (c) If I had been in Glasgow last week I would have been going to the Scotland game. (3.39)

(d) We would have been going to the dance last night but we had to go somewhere else. (3.54)

(e) He would have been going to the party on Sunday evening but he has taken ill. (3.69)

3. To indicate a Hypothetical Action/State at Present or Near Future

Frequency: None + 10

Adverbials: tonight; today; now; right now; ...

Examples:

(a) I would have been going to the concert tonight if that essay had not been set for tomorrow. (3.18)

(b) Had plans materialized we would have been going away today. (3.26)

(c) I would have been going for my dinner now but for these questions. (3.31)

(d) If it had not been for this I would have been going for my dinner right now. (3.45)

(e) I would have been going tonight but the buses are on strike. (3.66)

Mention should perhaps be made to some important conclusions that can be drawn from the above inventory of functions of tenseemes. It is first necessary to stress an axiom in linguistics; that no corpus, no matter how comprehensive, is exhaustive. This should be an admitted fact in any research which uses a corpus at any stage. Hence, it must be made clear that though the above

inventory of functions is a large one, it is not complete since it is drawn from a limited linguistic corpus. Yet, the danger of coming up with a sketchy inventory was considerably minimized by the use of tests that were geared to elicit a corpus of data containing a very large variety of responses. Despite all this, the fact remains that no corpus, no matter how carefully selected, is complete. Therefore, other functions, though probably only marginal ones, may be reported by other researchers and found to be lacking in the above inventory.

A noteworthy point that has already been mentioned and that comes up even more clearly in the above inventory is that expanded tenseemes share the same systematic functions with their corresponding non-expanded tenseemes. This clearly shows that expanded tenseemes do not have any uniqueness as far as their temporal locations in the general structure of the tense system are concerned.

Another interesting phenomenon that can be observed from the above inventory is that frequency, i.e. the repeated occurrence of an action/state, is never indicated in verb forms in English. There are no special verbal forms or verbal markers in English that would suggest the frequency of an action or state. Frequency is rather indicated by adding temporal adverbials of frequency, like often, everyday, always, etc.,

to the tenseme representing a given action or state.

However, the most significant conclusion is perhaps that functions of linguistic items are best handled after the general structure of the systems which those items are part of has been first adequately analyzed and described. It would have been more difficult to describe the functions of the various ^{tensems}/mentioned above and to subdivide those functions into systematic versus non-systematic ones without having first dealt with the various aspects of the temporal values of verbal markers, shiftings, redundancy, etc.

The above inventory of functions has also clearly shown the principal role that temporal adverbials play in the English tense system. With the majority of functions of every tenseme, especially with non-systematic functions, temporal adverbials are indispensable in the determination of specific functions. In most cases, it is not the tenseme as such that indicates this or that function; it is rather the tenseme plus a member of a special category of temporal adverbials. This may explain why temporal adverbials have been given such a prominent place in the above inventory and in the study as a whole.

Finally, it might be worthwhile to mention at the end of this General Conclusion that according to

the present analysis, English has two tenses only. Besides, the number of English tenseemes has been shown here to be sixteen: eight belong to each of the two tenses. The two tenses are past and non-past or present whereas the sixteen tenseemes have all been mentioned, named, and analyzed in the above general inventory of functions.

APPENDIX A
THE WRITTEN RESPONSES TO TEST THREE
(ENGLISH)¹

I. GOES ²

1. Each morning he . . . to work by train .
2. Whenever he sees her in the evening, he always
. . . away .
3. He . . . tomorrow.
4. He . . . everywhere with the dog at week-ends.
5. Everyday, he . . . to work
6. He . . . home tomorrow.
7. He . . . to school every morning.
8. He . . . to church in the mornings not in the
evenings.
9. He . . . tomorrow.
10. He . . . to university tomorrow.
11. "When he . . . , I go too," said the old lady looking
abjectly at her little spaniel.
12. In the morning my wife . . .
13. He . . . early to work.

¹Sentences which do not have temporal adverbials, or have the tenseme concerned itself used as part of the temporal adverbial required in the test are not considered relevant to the objectives of the test and their numbers are hence omitted here.

²Instead of writing the same tenseme in every sentence in these data, three subsequent dots are here used to represent the tenseme for which any sentence is given.

15. He . . . on holiday in July.
16. Tomorrow, he . . . to London.
18. She . . . to the cinema at least once a week.
19. The bus . . . tomorrow in the morning and on Wednesday afternoon.
20. He . . . out whenever the sun shines.
21. Who . . . there at this time of the night?
24. In the morning he . . . to work.
25. He . . . for his lunch at 10 o'clock.
26. He . . . to work every second day.
27. He . . . at 7.45 each morning.
28. In the morning he . . . to his work.
32. He . . . to school tomorrow.
33. He . . . to the cinema regularly.
34. He . . . every morning.
35. In the afternoon he always . . . to his room and studies.
36. He . . . to London tomorrow evening.
38. She . . . to a dance every Saturday.
39. The clock . . . all day only if I wind it up in the morning.
41. He . . . tomorrow.
42. He . . . to work every day.
43. If he . . . after we come then we shall stay until morning.
44. She . . . tomorrow at 3 o'clock exactly.

45. I hope that she . . . in the evening.
48. At the moment the clock . . . quite well.
49. If he . . . before I do, then he shall be first.
50. He often . . . to the football match when he has
some money.
52. Every Sunday he . . . to a folk club at which he
often sings.
53. He always . . . there after we leave.
54. He . . . to the Union every day.
55. He often . . . to football matches.
56. He . . . to university every day.
57. The train . . . at eleven o'clock sharp.
58. She . . . swimming every morning.
59. John . . . home tomorrow.
60. It . . . now.
62. He . . . whenever he feels like it.
63. He . . . tomorrow.
64. She . . . there often.
68. My boy-friend . . . to work on the train every
morning.
69. She . . . to her aunt's house on the bus every
afternoon.
70. She . . . to the pub every day.

II. WENT

1. Last night when I returned from the library, I
. . . for a stroll with Rover.

2. He . . . home yesterday.
- 3..I . . . today.
4. We . . . to the zoo yesterday.
6. I . . . home when he arrived.
7. We . . . out for a meal last night.
8. Yesterday she . . . into town.
9. He . . . to the club last night.
10. If he . . . tomorrow it would not be soon enough.
11. When she had finished screaming, he quietly . . .
out of the room shutting the door firmly behind
him.
13. He . . . yesterday.
15. He . . . yesterday.
18. We all . . . down to the beach very early yester-
day morning because the weather was so fine.
19. Yesterday we . . . for a trip to Ayr.
20. We . . . to the Exhibition on Tuesday last.
21. He . . . away three years ago.
22. After the dance we all . . . home.
23. After leaving the lecture, I . . . for my lunch.
24. In the morning we . . . to school.
25. We . . . to the cinema yesterday.
26. I . . . yesterday.
27. He . . . to bed late.
28. He . . . to the pictures yesterday.
29. The bus . . . away without us yesterday and we
had to walk.

30. Yesterday we . . . to the museum.
31. I . . . home after I collected my car from the garage.
32. I . . . to bed at 10 p.m.
33. Yesterday, we . . . on a picnic.
34. She . . . last night to see her mother.
35. Yesterday we . . . to the lecture and heard a versatile new speaker.
36. We . . . last year but it's impossible at the moment.
37. I . . . to the game yesterday.
38. Whenever we arrived, we . . . to the cinema.
39. I . . . home last week.
41. I . . . in the evening.
42. He . . . home after the storm.
44. We . . . after they had all left.
45. He . . . for his breakfast in the morning.
46. She often . . . to the clinic at 7.00 .
47. Yesterday I . . . to the bank.
48. In the morning, we . . . to the circus.
49. I . . . shopping before he arrived.
50. He . . . up the other road when he saw his enemy approaching.
51. The two boys . . . to play a few minutes ago.
52. Yesterday we . . . to see my grandmother, who is in hospital.

53. I . . . to Kilmarnoch the morning after she left.
54. I . . . to Switzerland last summer.
55. They . . . away before the storm broke.
56. I . . . into the city yesterday.
57. We all . . . to the park after lunch.
58. I . . . to see him last evening.
59. We . . . to the park yesterday.
60. When he arrived, we . . . out.
61. Fred . . . back to the pub after we arrived home.
62. He . . . sometime yesterday.
63. She . . . yesterday.
64. She . . . earlier today.
66. I . . . into town yesterday.
67. One of my neighbours . . . to Italy last year.
68. We . . . to the pictures last Saturday night.
69. Yesterday I . . . to the public library.

III. HAVE GONE

1. They . . . home now.
3. I . . . in the morning.
8. I . . . to town today.
13. We . . . early to avoid the rush.
15. They . . . away after having waited since 12 o'clock.
16. Tell John, when he arrives, that I . . .
17. They . . . to the football match this evening.
19. By October, all the birds . . . south for the
winter, the sun, the scenery.

20. If I . . . , when you arrive, will you please follow.
22. They . . . home for the weekend.
23. They . . . regularly every evening.
25. I . . . down the same road in the morning for about
a year.
27. We . . . to Loch Lomond for the summer.
28. I . . . to the pictures before.
31. As he marched up to his superior he said "You . . .
too far this time."
32. We . . . to the pictures this evening.
33. Sheila and Mary . . . home early.
38. They . . . away already.
42. After working all day, I . . . home.
43. If I . . . wrong today, perhaps I may do better
tomorrow.
45. Today I . . . to the History of Science lecture.
48. Today they . . . out for lunch.
49. Before we come make sure they . . .
52. Tomorrow when I . . . home, you will find a letter
waiting for you.
54. They . . . home today to see their families.
62. They . . . now.
64. I . . . there often.
68. During the last few weeks I . . . to all my
classes.
70. They . . . to college today.

IV. HAD FINISHED

2. The class were told that when they . . . in the afternoon, they would be allowed to return home.
3. I . . . it in the morning.
4. As we . . . our match early we went home.
6. When he arrived, I . . . working.
7. When we arrived the party . . .
8. When we arrived at the hotel our party . . . their meal.
9. He . . . the exercise by the time we arrived.
10. If I . . . my work sooner I could have gone out to the cinema.
13. He . . . the work yesterday.
15. He . . . yesterday when he came home.
16. When John arrived, I . . . my meal.
20. When the clock struck, he . . . the letter.
21. The old man . . . his tea by the time we arrived.
23. When we reached the lecture theatre the lecture . . .
24. Kate . . . this two minutes before I had.
25. By the time he arrived we . . . our meal.
26. When he arrived at the station he . . . his work.
28. He . . . working yesterday when he left the office.
29. By the third day he . . . the construction.
32. If you . . . that this morning, you could have gone home now.
33. When the bell sounded, everyone . . . the exercise.

34. When she arrived I . . . preparing the meal.
35. When he arrived he found that I . . . the experiment
38. I . . . as soon as possible.
39. When I returned from the lecture my friend . . .
copying out the notes.
40. Mrs. Jones . . . her housework before the children
came home from school.
41. When he . . . in the morning he went home.
42. I . . . my work in the evening.
44. They . . . the job well before he arrived.
49. If we . . . yesterday then today we could have
done something else.
51. In the morning, before he . . . breakfast the
'phone rang.
52. When she arrived late, I . . . the work on my own.
53. When we reached the dining room he . . . his meal.
54. Yesterday when we . . . lunch we went for a walk.
55. In the morning, after the heavy rainfall, we found
that the dairy boy . . . the last of the milking.
56. When we arrived the concert . . .
57. The game . . . ahead of schedule.
58. When he . . . working late in the afternoon he had
a meal.
59. When he arrived, he found we . . . our lunch.
60. We . . . in the morning.
61. She . . . the linguistics test when he arrived.

62. He . . . his work two years previously.

63. When he . . . his breakfast in the morning, he left.

66. We . . . our dinner when he came to the house.

67. We had only just finished our round of golf before
it began to rain.

68. Yesterday, after I . . . work, I went shopping.

69. By Tuesday morning, he . . . his assigned task.

70. I . . . the exercise when he arrived.

V. WILL FINISH

1. This programme . . . in half an hour.

2. The programme . . . in a week.

3. I . . . tomorrow.

4. I . . . my knitting before I come.

6. I . . . it tomorrow.

7. He said, "I ...it by this evening."

8. I . . . doing that tomorrow.

9. I'm not certain that he . . . on time.

10. I . . . this sentence soon.

11. I . . . these questions as quickly as possible.

12. When we are tired we . . .

13. I . . . this exercise as quickly as possible.

14. I . . . working very hard after the exams.

15. I . . . tomorrow.

16. By nine o'clock, I . . . my homework.

17. The baby . . . his meal in a minute.

19. "We . . . the bridge by next year," said the site controller.
20. I . . . knitting this sweater by tonight.
21. The play . . . before supper time.
22. The class . . . when I am ready to stop.
23. The lecture . . . when the lecturer is ready.
24. Tomorrow I . . . reading my chemistry notes.
25. I . . . my essay tomorrow.
26. I . . . my lunch later.
27. We . . . this year.
28. I . . . this work tomorrow.
29. They . . . at least ten minutes late.
30. Tomorrow I . . . my project.
31. I . . . soon.
32. You . . . that book tomorrow.
34. He . . . it tomorrow morning.
35. Tomorrow we . . . decorating the dining room.
36. I . . . the book tonight.
37. I . . . the book before I go to bed.
38. If I hurry, I . . . the paper before the allotted time.
39. All going well I . . . my course at the end of this year.
40. There is too much work to do this morning, we . . . it after lunch.
41. She . . . in an hour.

42. The party . . . after the guests have gone home.
43. He . . . the job when he arrives.
44. She . . . the exam before ten o'clock.
45. I . . . writing this at once.
46. Who . . . digging this grave before this morning?
47. Tomorrow I . . . the book I read to stop getting
bored in lectures.
48. I . . . the rest of the work in the evening.
49. I . . . before your arrival.
50. I . . . before you unless you hurry.
52. I . . . knitting this cardigan by the end of this
week even if it means neglecting other work.
53. You . . . this work in the morning.
54. I . . . this after we have gone for a coffee.
55. I . . . the work tonight.
56. I . . . as early as possible.
57. He . . . the essay for you in the morning.
58. They . . . it tonight.
59. He . . . the painting tomorrow.
60. The man . . . tonight.
61. He . . . the decoration of the house tomorrow.
62. They . . . soon.
63. You . . . before we leave.
64. I . . . the job by tomorrow.
65. I . . . the job after tea.
66. Term . . . on the 16th June, in six week's time.

- 67. Before much longer, this lecture . . .
- 68. I . . . my essay tonight .
- 69. I . . . my lunch before the next lecture.
- 70. I . . . the book tomorrow.

VI. WOULD GO

- 1. He said that he . . . to the movies this morning,
but I see that he has changed his mind.
- 3. I . . . when he arrived if I could.
- 4. We . . . next week but we will be on holiday.
- 5. If I had time, I . . . to the pictures today.
- 6. The plan was that I . . . home in the afternoon.
- 7. He said he . . . tomorrow evening.
- 8. I . . . next week if I could.
- 9. I'm certain he . . . to the match, if he could
afford the expense, tomorrow.
- 10. I . . . to London tomorrow if I had the money.
- 11. I . . . down to the auctioneers this afternoon
but I have to go to a Microbiology laboratory
instead.
- 13. I . . . to Milan on Wednesday if I had £35 .
- 15. He said he . . . next week.
- 16. Before leaving, I . . . to see my mother normally.
- 17. They . . . when they have finished if they could.
- 18. He said that he . . . to the lecture after he had
completed his exercise.
- 19. In the morning he . . . for his newspaper.

20. I . . . tomorrow if I had the money.
21. I . . . tomorrow if I could.
23. If he came, I . . . soon.
24. In the evening they . . . home.
25. I . . . today, but I don't have time.
26. I . . . during the day rather than in the evening.
27. She . . . skiing in winter.
28. I . . . to see the film tomorrow if I had the time.
29. I . . . home tomorrow if I was allowed to.
30. I . . . tomorrow only I've already arranged to
go out.
31. They said that they . . . tomorrow.
32. I . . . now if I could.
33. We . . . home tonight if there was a train.
34. We . . . but we will not have time in the morning.
36. I . . . with you but I have something else to do
this evening.
37. We . . . to the cinema after tea if we weren't
committed to staying at home to await an important
phone call.
38. I . . . immediately.
39. I . . . on the inter-halls cruise tomorrow if I
had the money.
40. When the school bell rang little Johnny . . . to
catch the bus.
41. I . . . as soon as possible.

42. I . . . to London by bus overnight.
43. He . . . in the morning or late evening.
44. I . . . just now gladly but I have to wait until
next week after the exam results have been published.
45. I was hoping that you . . . to the pictures with
me tonight.
47. Each day, he . . . for a swim in the Kelvin.
49. I . . . tomorrow but I do not think it would be wise.
50. I . . . to the pictures tonight but I already have
a previous engagement.
52. I . . . with you after your friend arrives if I
thought she would not object to my presence.
54. She . . . with you tomorrow but she will be too
busy.
56. I . . . to the theatre tomorrow if I was free.
58. I said that I . . . this evening.
60. He said he . . . after we arrived.
61. I . . . for lunch in the union tomorrow if the
food wasn't such a poor standard.
62. I . . . today if I could.
63. I . . . tomorrow if I had the time.
64. I . . . tomorrow if I could.
65. He said he . . ., but not before he had finished.
66. I . . . there tomorrow if I was free.
68. I . . . abroad in the summer if I had enough money.
69. I . . . to the meeting on Thursday but I don't have
the time.

70. We . . . in summer if we could.

VII. IS READING

1. This week, David Brown . . . Shakespeare at the
Globe theatre.
2. The girl . . . a book today.
3. He . . . now.
4. She . . . at the moment.
6. She . . . the news bulletin in the morning.
8. She . . . her notes just now.
9. She . . . a book at the moment.
10. He . . . this book before his lunch.
11. This year he . . . social economics at the University.
12. Tomorrow he . . . another interesting book.
13. Usually, when I come he . . .
16. When I arrive, if John . . . a book, I will leave
immediately.
18. He . . . a book by Dickens at the moment.
19. He . . . the weather forecast tomorrow.
20. She . . . about history this morning.
24. Today he . . . a book.
25. She . . . a novel today.
27. She . . . the test at this moment.
28. Tomorrow, the lecturer . . . from a particular book.
31. "He . . . at the moment," I said to the person at
the other end of the phone.
33. Peter . . . until we return.

34. She . . . her lectures notes just now.
37. She . . . the book presently, but won't be after she sees him coming to the door.
38. He . . . at every opportunity.
41. He . . . the lesson tomorrow.
42. He . . . a book on birdlife during a lecture on physics.
45. Someone . . . a novel during this lecture.
46. Who . . . my comic at this hour?
48. Just now he . . . a comic.
50. At the moment my brother . . . an exciting book and will not move.
52. At the moment, my mother . . . the newspaper which I brought home.
53. She is always reading whenever we see her.
54. She . . . 'The Edge of Objectivity' at the moment.
55. He . . . it quiet now.
56. She . . . the book whenever she gets the chance.
58. He . . . while he is eating.
59. John . . . a very good book today.
60. He . . . in Reading at dinner.
61. He . . . French next year.
62. He . . . too much after going to bed.
64. He . . . it now.
66. Sheila . . . a good book today.
68. My friend . . . classics at Oxford this year.

69. At the moment he . . . a book by Robert Groves.

70. She . . . a paper next week.

VIII. WAS READING

1. Last night when I . . . the Times, who dropped in
but John.

2. She . . . a magazine when he arrived.

3. I . . . in the morning.

4. I . . . a fascinating book when the door bell rang.

5. I . . . my book when the light fused.

6. When I arrived he . . . the newspaper.

7. When we arrived we went into the house and found
he . . . the same book.

8. I . . . my book when he arrived.

9. I . . . only the other day.

10. He . . . this book before his lunch.

11. I . . . the Sunday Times last night.

12. When he arrived she . . . Kama Sutra.

13. I . . . the Celtic View on Wednesday.

15. I . . . when you interrupted.

16. When the clock struck three I . . . a book.

17. I . . . the book all morning.

18. He . . . a novel in the library when we saw him
last night.

19. I . . . the newspaper when the incident occurred.

20. He . . . the paper when someone knocked at the door.

21. I . . . a magazine when he walked in.

23. I . . . while I was travelling on the bus.
24. Yesterday I . . . some lecture notes.
25. Yesterday when I . . . I fell asleep.
26. Last night I . . . my lectures.
27. I . . . Gillespie this morning.
28. I . . . a novel yesterday.
29. I . . . a book when I was told about this.
30. Last night I . . . a very interesting book.
31. I . . . the Daily Express this morning.
32. John . . . an essay yesterday.
33. Dick . . . aloud all afternoon.
34. He . . . a very interesting book when I arrived.
35. When we came home he . . . the minutes of the meeting.
36. I . . . a very interesting article in the paper
this morning.
37. I . . . the paper when he arrived.
38. When I arrived, he . . . a book and when I woke up
in the morning he was still reading it.
39. Just recently I . . . an article in the Times on
the Middle East situation.
41. I . . . for some time.
42. He . . . while she was talking to him.
43. I . . . the novel when they came in.
44. I . . . quietly when I fell into a deep sleep round
about half-past two.
45. Yesterday I . . . a good book.

48. This morning I . . . about South America.
49. She . . . when he arrived.
50. I . . . a magazine when the telephone rang.
51. I . . . a novel when a knock came on the door.
52. After I had come home I . . . that article which
you had advised me to look at and I found it
extremely interesting.
53. He . . . the book after the sun had risen.
54. I . . . this book when he arrived.
55. I . . . the book first before you came home.
56. I . . . a book when the light failed.
57. He . . . when I came in.
58. He . . . when I left him.
59. I . . . an interesting story yesterday.
60. He . . . in Reading at dinner.
61. He . . . yesterday that today's weather forecast
was gloomy.
62. He . . . when I entered.
63. I . . . the book before we came here.
64. He . . . the book earlier today.
65. While he . . . the light went out.
66. I . . . this book until he came.
67. I . . . quietly when the window blew open.
68. I . . . a history book last night.
69. He . . . a favourite book of his last night.
70. I . . . when he arrived.

IX. HAS BEEN WORKING

1. He . . . on that car for over a week now.
2. She . . . all day in preparation for the forthcoming examinations.
3. He . . . in the morning.
4. She . . . since this morning because she has an exam.
5. She . . . since yesterday.
6. He . . . there since I met him.
7. He . . . steadily for the last fortnight.
8. She . . . all day.
9. He . . . too hard lately.
10. He . . . at that essay for ages.
11. He . . . in that office for nigh over twenty years now .
12. My friend . . . in History of Science for a full five minutes this year.
13. Jimmy Johnston . . . hard lately.
15. He . . . hard after being on holiday.
16. If, at three o'clock, Jean . . . for three hours, I will not disturb her.
18. She . . . all day and so will not go out tonight.
20. The machine . . . well since we had it repaired.
21. The telephone . . . for a fortnight now.
23. John . . . while Helen has been reading.
24. Since we arrived Tom . . . hard.
25. He . . . with us now for one year.

26. She . . . on the essay all day.
27. He . . . hard all his life.
28. He . . . for a couple of hours.
29. The boy beside me . . . non-stop for three days.
30. He . . . on the essay for over one week now.
31. He . . . too long.
32. He . . . since noon .
33. Gillian . . . all day.
34. He . . . steadily for three hours.
35. He . . . in Alaska for ten years.
36. He . . . all night; that's why he's tired.
37. Dad . . . on that project since time immemorial.
38. She . . . for four hours non-stop.
39. My father . . . in the same job now for thirty years.
40. My father . . . all day.
41. He . . . for several years.
42. He . . . for a long time.
43. Henry . . . every evening until early morning.
44. She . . . there before I came.
47. He . . . for the degree since March.
48. He . . . during lunch-time.
52. She . . . very hard since the beginning of the term.
53. She . . . ever since his death.
54. She . . . every day for the past week.
55. He . . . all day.
56. My brother . . . on the buses for the past month.

57. He . . . all through the night.
58. She . . . there for six years now.
59. He . . . for an hour and a half today.
62. Often I find he . . . for many hours before I arrive
in the evenings.
63. He . . . since six o'clock .
64. He . . . all day.
65. When one . . . hard for a long time, a rest is
always pleasant.
66. He . . . since he left school .
67. He . . . non-stop since yesterday.
68. My friend . . . very hard recently.
69. He . . . very hard during the past week.
70. She . . . since last week.

X. HAD BEEN READING

1. I . . . 'Inspector Howard' when I was asked to
recommend a good book.
2. The boys . . . earlier in the day.
3. I . . . before his arrival.
4. She . . . when we walked in although she pretended
to be sleeping.
5. He . . . for some time when the phone began to ring.
6. I . . . for two hours when he arrived.
7. I could see that he . . . when I arrived yesterday
morning.
8. She . . . the papers when the decorator had arrived.

9. He said that he . . . about the incident in the newspapers earlier in the morning.
10. I . . . for about an hour when he arrived.
11. During that evening he . . . an article about a tribe of South American Indians.
12. When she arrived he . . . the book that she had read in No. 7 .
13. I . . . the Celtic View early on Wednesday morning.
15. They . . . when the bell rang.
16. When John entered, I . . . my book, but then I was sleeping.
17. I . . . when I heard the sound.
18. We . . . a new science fiction book last time I met him and we had a long discussion about it.
19. Yesterday he . . . 'Models in England'.
20. I . . . a book when they suddenly arrived.
21. He . . . all through the night.
22. I . . . all afternoon.
23. I . . . when he arrived.
24. Yesterday Jane . . . the notice board.
25. I . . . that part of the book only yesterday.
26. I . . . all day.
27. He . . . all day.
28. I . . . when you arrived.
29. The man who . . . for 371 days finally died of boredom.

30. The passage we . . . in class yesterday was of no importance to our lecture.
31. He . . . for an hour before the phone rang.
32. Mary . . . that book all day.
33. Irene . . . for a long time.
34. She . . . when the police arrived.
35. He . . . a book the day before he died.
36. He . . . a horror story before he went to bed.
37. I . . . the book for about a fortnight.
38. By three o'clock he . . . for four hours.
39. I knew a lot about the subject because I . . . about it the previous night.
41. They . . . for a long time.
42. He . . . it quickly before lunch.
43. He . . . for several hours in the afternoon.
44. We . . . for about an hour when suddenly the phone rang.
45. He . . . the novel during the whole of the lecture.
46. He . . . until Philolaus arrived.
47. Yesterday he said he . . . all day.
50. We . . . an interesting piece of news when a bang disturbed us.
52. Yesterday, before he arrived I . . . the magazine which you had given to me.
53. I . . . that book until sunrise.
54. We . . . the papers last night when we decided to go out.

55. He . . . it before I came into the room.
56. I . . . my notes when a knock came at the door.
57. I . . . before lunch.
58. He . . . when the fire alarm rang.
59. He . . . the book for four hours.
60. He . . . in Reading at dinner.
61. Had he not been reading the 'Scotsman' this morning
then perhaps I could have attempted the crossword.
62. I . . . for three hours when she arrived.
63. I felt as if I . . . for hours.
64. I . . . that book when you came to the door.
66. Jane . . . until there was a power cut.
67. I became tired after I . . . for only five minutes.
68. When I stopped working last night, I . . . for
four hours.
69. He . . . a book when the roof fell on him.
70. He . . . before we arrived.

XI. WILL BE READING

1. Next week David Brown . . . Shakespeare at the
Globe Theatre.
2. When asked what they would be doing this evening,
they replied that they . . .
3. I . . . tonight.
4. I . . . in the library tomorrow when you come.
5. Tomorrow he . . . the book I lent him.

7. If you are looking for me this afternoon I . . .
in the library.
8. This time tomorrow I . . . the questions.
9. I . . . that next term.
10. I hope I . . . the newspaper at this time tomorrow.
11. I . . . about several topics over the next few
weeks, before the exams begin.
12. This evening Swinbank . . . another book.
13. I . . . the Celtic View next Wednesday.
15. He . . . Chaucer after he finishes Shakespeare.
16. When John enters, I . . . my book.
17. He . . . when we enter this room.
18. Since that exam has been moved forward to next
week I . . . all the texts every night this week.
19. Tomorrow he . . . the 'Botanic Garden' of Darwin.
20. I . . . that book after I have finished this.
21. He . . . this for the next ten years.
22. The class . . . that book in the near future.
23. I . . . while the television is on.
24. Tomorrow they . . . chemistry.
25. I . . . the textbook tomorrow.
26. I . . . it tonight.
27. I . . . tonight.
28. I . . . a book tomorrow.
29. In view of this I will not be reading any more
notes in future.

30. Next week we . . . the life of Charles Darwin.
31. I . . . when you come round.
32. He . . . that book tomorrow.
33. Tomorrow we . . . Chapter Twelve.
34. We . . . our lecture notes at that time.
35. We . . . maths at the university next year.
36. I . . . that book of poems as soon as I have time.
37. I . . . the book for quite a while yet.
38. On Thursday, I . . . my History of Science notes.
39. In the next few weeks I . . . Bernard's book on
the History of Science.
41. She . . . when she comes in.
42. Everyone . . . this soon.
43. I . . . probably this evening.
44. She . . . her new novel for half an hour before
she goes to bed.
45. I . . . no more of this questionnaire today.
46. Fred . . . until the cock crows at 3.00 .
47. I . . . Fanny Hill tomorrow.
48. Tomorrow we . . . Greek.
49. I . . . my novel tomorrow evening after you leave.
50. I . . . this until the visitors come.
52. He . . . the passage from the Bible in Church on
Sunday.
53. She . . . that book when we arrive.
54. We . . . Gillespie's book after we come back from
the lecture.

55. I . . . by the time you fetch the dictionary.
56. I . . . a book in the library this afternoon.
57. I . . . tonight after supper.
58. I . . . this book all evening.
59. We . . . about it in the papers tonight.
60. He . . . in Reading at dinner.
61. Doubtless he . . . his 'Freud' when I get home
this evening.
62. I . . . in poor light after sunset.
63. I . . . when you come in.
64. I . . . your report tomorrow.
66. I . . . over my lectures tonight.
67. I . . . my examination paper more closely next time.
68. I . . . maths notes this evening.
69. I . . . my book during my journey home this
afternoon.
70. She . . . when we arrive.

XII. WOULD BE LEAVING

1. If I hadn't come down with flu', I . . . on the
6.15 train tonight.
2. After the programme in the morning, they . . .
3. I . . . now if I'd packed.
4. We . . . for the bout at 4.00 p.m. tomorrow.
6. Normally he . . . at the end of the week.
7. He told me that he . . . tomorrow.
8. I . . . for France today if this had not happened.

9. He said that he . . . in a few days' time.
10. He . . . on the plane just about now.
11. He . . . Scotland in June if he could get the same job elsewhere.
13. Jim Baxter said he . . . Rangers this season, and he was right.
15. They said that they . . . when they had finished.
16. At three o'clock on a Saturday, I would normally be leaving for home.
17. When the bell sounds he . . . if he could.
18. She said that she . . . at nine o'clock tomorrow.
19. We didn't worry about that because he . . . in May.
21. I . . . this instant if you would let me.
22. The receptionist told them we . . . early in the morning.
23. I . . . sooner if I didn't have to fill this in.
24. When I arrived they . . .
25. I told him I . . . at the end of the month.
26. She . . . tomorrow had her mother not taken ill.
27. They . . . a week on Saturday.
28. I . . . earlier, but I am meeting someone at five o'clock.
29. I thought I . . . early today, but thanks to this I'm not.
30. He . . . today if there wasn't a train strike.
31. If you had not got permission to leave early you . . . now.

32. If I could, I . . . soon.
33. He . . . at seven o'clock.
34. He . . . on the seven o'clock train.
35. If the train is on time we . . . at 8.00 o'clock.
36. We . . . tomorrow if this hadn't happened.
37. We . . . tomorrow if it weren't for the rail strike.
39. If the linguistics test wasn't at 12.45 I . . . the
lecture hall at 12.55.
40. I was told this train . . . soon.
41. I . . . tomorrow if I had finished.
42. He . . . soon after school.
43. I . . . early next week.
44. We . . . just now if they had not arrived five
minutes ago.
45. He . . . immediately if he had any sense.
46. I . . . now, but I still have this sentence to
complete.
47. He said he . . . yesterday but he didn't.
48. He . . . in a fortnight.
50. I . . . just now but it is raining.
51. He . . . his job today if it had not been for his
mother.
52. I know that you . . . tomorrow if you could have
managed to pay the fare.
53. He would now be leaving after the dinner had been
served.

54. I . . . tomorrow but I cannot get a seat on the plane.
55. They . . . as soon as I got back.
56. I said I . . . university in a year when I applied
for the job.
57. I told him that I . . . after the match.
58. He said that he . . . on the eleven o'clock flight
this morning.
59. He . . . presently.
60. He . . . promptly.
62. On many occasions she . . . as I caught a glimpse
of her.
63. It . . . the station by then.
64. She . . . when you called.
65. He said he . . . whenever he heard the result.
66. I . . . University on June 1st if it were not for
History of Science degree.
68. I . . . home this year if I was not working in Glasgow.
69. He . . . Britain at the end of the month provided
he could afford the fare.
70. He . . . before the exams.

XIII. WILL HAVE FINISHED

1. I . . . this essay by tomorrow morning.
2. You . . . by tomorrow.
3. I . . . it by tomorrow.
4. I . . . by tomorrow at ten.
5. By tomorrow he . . . working on the car.

6. Next month I . . . my portrait.
7. We . . . it by the time you come back.
8. Tomorrow I . . . my work.
9. We . . . before August.
10. I . . . my essay before tomorrow.
11. We . . . this questionnaire by the time the dinner bell rings, I hope.
12. They . . . the work in the morning.
13. We . . . this in about ten minutes.
14. We . . . have gone for a walk when he gets back.
15. I . . . by tomorrow.
16. After nine o'clock, we . . . our meal.
17. You . . . the exercise by tomorrow.
18. If you . . . that essay by twelve then we will go to the exhibition in the afternoon.
19. By tomorrow, I . . . this test, I hope.
20. I . . . this essay by this afternoon.
21. The girl . . . her homework before dusk.
22. I . . . painting the door by 6 o'clock.
23. When we arrive the show . . .
24. In ten minutes I . . . writing this.
25. By tomorrow I . . . sewing my dress.
26. Next month we . . . listening to lectures.
27. We . . . in May.
28. I . . . the work by tomorrow.
29. I hope the exercise . . . by one o'clock.

30. Tomorrow I . . . my exams.
31. Go to his house after eight o'clock he . . . by then.
32. You . . . your essay by sunset.
33. Susan will soon have finished writing her letter.
34. He . . . it by morning.
35. In the morning I . . . my book.
36. She says she . . . the essay by tomorrow.
37. By tomorrow he . . . the painting.
38. I . . . by one o'clock.
39. In fifteen minutes I will probably have finished
this test.
41. They . . . working soon.
42. Most of my friends . . . their degree by summertime.
43. I . . . my work by two-thirty.
44. We . . . before you arrive.
45. Tomorrow, I . . . coming to university for this week.
46. We . . . soon.
47. Dr. P. S. Swinbank . . . the lecture course by
May 16th.
48. Tomorrow he . . . painting the lounge.
49. By the time you have started we . . .
50. The boys . . . their game by the time that the tea
is ready.
51. I . . . this packet of biscuits by the time you
come here.
52. I sincerely hope that you . . . decorating your
flat when I come to stay.

53. You . . . knitting this garment about six o'clock tomorrow morning.
54. We . . . this later this afternoon.
55. I . . . the job before you return.
56. In one hour I . . . this essay.
57. I . . . my work, when you come after lunch.
58. They . . . the exercise by this time.
59. We . . . making this table by tomorrow.
60. We . . . by the time you arrive.
61. I hope we . . . this test by lunch time.
62. He . . . by the time they have returned.
63. He . . . by the morning.
64. I . . . by tonight.
66. I . . . this lecture in two minutes.
68. In a fortnight, I . . . classes.
69. I . . . my essay by the weekend.
70. They . . . the arrangements by tomorrow.

XIV. WOULD HAVE GONE

2. By the time he reached the station, the train . . .
4. I . . . yesterday but I had so much work to do.
5. He . . . home yesterday, but I stopped him.
6. I . . . on holiday next month.
8. I . . . shopping today but I didn't have time.
9. I . . . yesterday but for Mary.
10. I . . . with you in the morning if I had the time or money.

11. I . . . to the party tonight if I hadn't so much work to do.
13. I . . . for lunch by now if it hadn't been for this exercise.
15. I . . . when I finished.
17. When the sun came out he . . . immediately.
18. He . . . to meet her after his exam if he had not been persuaded by his friends to go for a drink.
19. I . . . to the match yesterday if it had not been raining.
20. We . . . last year if we had had more time.
21. I . . . yesterday but not today.
23. I . . . to the show tonight if I'd had tickets.
24. Yesterday we . . . to Edinburgh.
26. I . . . beforehand.
28. I . . . to the pictures tomorrow if I had not been doing something else.
29. I . . . to the cinema this afternoon, but not now.
30. We . . . yesterday if it had not been raining.
31. I . . . for a run after I finished my work if you had not come to see me.
32. She . . . when he arrived.
33. We . . . before, but it started to rain.
35. I . . . last year if I had the money.
36. We . . . again this year but we wanted a change.
37. She . . . home sooner but the bus didn't come on time.

38. If I had had the chance, I . . . in the morning.
39. My friend . . . home with me last week if he hadn't wanted to see the Scotland games.
41. I . . . yesterday.
42. I . . . home afterwards.
43. He . . . yesterday at noon.
44. We . . . later but the meeting made it impossible.
45. I . . . for my dinner earlier but for this questionnaire.
47. I . . . earlier yesterday, but the lecture hadn't finished.
48. I . . . yesterday if I had been able.
49. I . . . tomorrow.
50. We . . . just now but it is raining.
51. I . . . earlier but my friend came and delayed me.
52. She . . . to the theatre yesterday evening if her mother had condoned it.
53. I . . . there after the man had arrived.
54. I . . . whenever they told me to.
55. I . . . more often if my leg had been better.
56. I . . . to university last week if I had not been ill.
57. We . . . after the match if it hadn't rained.
58. I . . . last week had I been able.
59. We . . . fishing if the weather had been better yesterday.
60. He . . . tomorrow.

61. He . . . on the trip tomorrow if it hadn't clashed with his exams.
65. He . . . immediately had his coat not been caught in the door.
66. They . . . away last night but she was working late.
68. My boy-friend and I . . . out last week if he had not arrived too late.
69. I . . . to the park if it had not been raining yesterday afternoon.
70. I . . . before the situation became critical.

XV. WILL HAVE BEEN WORKING

1. In half an hour I . . . at this essay for three hours.
2. They . . . all day today.
3. I . . . by then.
4. She . . . till three o'clock as she has to leave then.
5. By tomorrow, the students . . . for many hours.
6. By the time you arrive, we . . . two hours.
7. By this afternoon I . . . at this job for three days.
8. I . . . for three weeks tomorrow.
9. He . . . on the project for three years next June.
10. I . . . for four hours when it is twelve o'clock.
11. I . . . here for four years when I graduate in June.
12. By morning they . . .
13. I . . . for six weeks.

14. I . . . very very hard by the time the exams come around.
15. Next Friday I . . . for two weeks.
16. By ten o'clock, I . . . for three hours.
17. The car . . . for three months by Saturday.
18. By September she . . . in that office for a year.
19. In ten seconds, I . . . at this for five minutes.
20. When you leave he . . . for four hours.
21. I . . . until midnight before this is finished.
22. We . . . on this building site for five months now.
23. When he arrives we . . . for eight hours.
24. At one o'clock I . . . for three hours.
25. By four o'clock I . . . for six hours.
26. By another hour we . . . for twenty-four hours.
27. We . . . hard all the year.
28. By tomorrow, I . . . for five days.
29. By the time I finish this I . . . for three hours.
30. Next week I . . . for this firm for one month.
31. By the time I've finished this questionnaire I . . . on it for ten minutes of my dinner-time.
32. At 6p.m. Mary . . . for nine hours.
33. John . . . for five hours at six o'clock.
34. They . . . steadily for six hours.
36. By the time he arrives I . . . for nearly three hours.

37. By tomorrow, they . . . on the project for one month.
38. By five past one I . . . overtime.
39. By the time I sit the History of Science degree exam on June 16th, I . . . for two weeks.
40. At the end of the week my brother . . . at his new job for exactly one month.
41. He . . . for several hours.
42. I . . . for four hours after this lecture.
43. I . . . for five and a half hours during this evening period.
44. In another ten minutes we . . . for three hours.
45. I . . . too long if I finish this questionnaire today.
46. He . . . for hours when the first assault by dawn is made through his window.
47. On the day of the History of Science degree exam, I . . . at History of Science for precisely one day.
48. After six o'clock he . . . for over eight hours.
49. If we continue working until tomorrow, then we . . . for twenty-four hours.
50. At six o'clock you . . . for three hours.
51. By the evening he . . . for at least fourteen hours.
52. By ten o'clock this evening you . . . for five hours without taking any rest at all.
54. They . . . in the library for several hours.
55. By the time we reach the warehouse they . . . for more than two hours.

56. I . . . here for two years this Friday.
57. By seven o'clock tonight, you . . . for about ten hours.
58. By next June, I . . . at this process for two years.
59. When John arrives, we . . . for two hours.
60. By that time we . . . for hours.
61. I . . . for three hours by the time I get some lunch.
62. They . . . for two years.
63. By tea-time I . . . for five hours.
64. I . . . for six hours.
65. If his room light goes out only late at night, you will know he . . . up until then.
66. I . . . for two hours by 1.00 p.m.
67. In a moment's time, we . . . for an hour.
68. My mother . . . in the house today.
69. He . . . for six months when he celebrates his twenty-first birthday.
70. By tomorrow I . . . here for a year.

XVI. WOULD HAVE BEEN GOING

2. The couple . . . out yesterday evening had it not been wet.
3. I . . . tomorrow anyway.
6. My grandfather . . . on holiday next month.
7. Tomorrow I . . . abroad if I had not taken ill.
8. I . . . tomorrow if this had not happened.
9. He . . . in May

10. I . . . to London in the morning if this had not happened.
11. I . . . home this weekend if I hadn't entered for the Regatta on Saturday.
12. After we had arrived we . . . but I had felt that I was too tired to leave.
13. I . . . to Milan on Wednesday morning.
15. They . . . after you left.
16. Tomorrow, I . . . shopping if I had not broken my leg.
18. I . . . to the concert tonight if that essay had not been set for tomorrow.
20. If the car had not broken down I . . . this afternoon.
23. I . . . to Glasgow tomorrow if I had been on holiday.
24. In the evening we . . . home.
25. I . . . to town tomorrow if I hadn't been ill.
26. Had plans materialized we . . . away today.
27. We . . . abroad this summer.
28. I . . . on the picnic tomorrow but I have made previous arrangements.
29. I . . . to get some food by now if I hadn't been told to do this.
30. Next week I . . . on holiday, had I not still exams to sit.
31. I . . . for my dinner now but for these questions.
32. I . . . out if it had not rained yesterday.

33. We . . . later on if the rain had stopped.
35. Had the weather been good tonight we . . . to the football match.
37. We . . . to the game after tea but by that time it had started to rain.
38. If I had money, I . . . home tomorrow.
39. If I had been in Glasgow last week I . . . to the Scotland game.
40. Mr. Wilson . . . to the wedding tomorrow had he not broken his leg.
42. They . . . abroad after the discovery if their passports had been in order.
43. Sir . . . in the morning, Madam.
45. If it had not been for this I . . . for my dinner right now.
47. This weekend we . . . on a trip if the car had not broken down.
48. He . . . tomorrow morning if he had not been so naughty.
49. I . . . tomorrow but before I had made final arrangements the trip was cancelled.
50. We . . . out tomorrow but we had to remain at home because of my mother's sudden illness.
51. We . . . out if he had not come so early.
52. If he had arrived you . . . to the cinema tonight, would you not?

54. We . . . to the dance last night but we had to go somewhere else.

55. They . . . tomorrow morning if the car had not broken down.

56. I . . . to Edinburgh tomorrow if this hadn't happened.

57. We . . . tomorrow anyway.

58. I . . . to Edinburgh tomorrow, but something else turned up.

60. The man . . . for ages.

62. He . . . away too early.

63. Tomorrow I . . . had this not happened.

65. Before you told me that the trip was cancelled, I thought that I . . . to Milan next week.

66. I . . . tonight but the buses were on strike.

68. I . . . to a party last night if I had not had too much work.

69. He . . . to the party on Sunday evening but he had taken ill.

70. Tomorrow we . . . away if nothing had happened.

DESCRIPTION
AND
CONTRASTIVE ANALYSIS
OF
TENSE AND TIME IN ENGLISH AND ARABIC

by
ABDUR-RASUL AL-KHAFAJI

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DESCRIPTION
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VOLUME TWO

VOLUME TWO
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PART THREE

THE ARABIC TENSE SYSTEM

CHAPTER ONE

DESCRIPTION OF CORPUS AND TESTS

(A) Description of Corpus

In order to obtain a large datum for an analysis of verbal forms and functions in Arabic, the writer has drawn both on his own knowledge of the language as a native Arab himself and on the responses to two experimental tests given to a number of other native Arabs. Consequently, a total of 2886 sentences has been collected and analyzed for the present study. The number of subjects that took part in the two experimental tests was one hundred and thirty-eight. All the informants were undergraduates from both the University of Basrah in Iraq and Beirut College for Women in Lebanon.

(B) Description of Tests

1. Test One

(i) Objectives

The objective of this test was to provide us with a large variety of verbal forms in Arabic, all used in normal grammatical sentences by educated native Arabs.

(ii) Format¹

/ ?ista9mil kullan mina şşiyaghi ttāliya fi

¹For the exact Arabic format of this test, see Appendix C.

jumla min 9indika 9alā shart ?an tahwi kulla
jumla min jumalika 9alā wāhid mina zzurūfi
zzamaniyya 9ala l?aqall. lāhiz ?annahu fi ḥālati
ṣṣiyaghi lfi9liyya lmurakkaba ?adnāh, ?ay llati
tahwi ?akthara min fi9lin wāhid, yumkinuka ?an
tafṣil bayna ?ajzā?i ṣṣigha lmurakkaba fi jumalika,
famathalan tastati9 ?an taḍa9a lfā9il ba9da
sayakūnu wabidhālika tafṣiluhā 9an yaqra? fi
sayakūnu yaqra? ?adnāh, wahākadhā ma9a baqiyyati
ṣṣiyaghi lmurakkaba l?ukhrā. (?azzurūfu zzamaniyya
mithil: fi ṣṣabāh, 9indamā ra?aytuhu bil?ams,
qabla ?an yūsāfir, ba9da ttakharruj, l?ān, sabāhan,
fi ssā9a l9āshira, sābiqan, ...)

"Use each of the following verbal forms in
 a sentence of your own. Each of your sentences
must contain one temporal adverbial at least.
 Notice that in the case of verbal clusters below,
 i.e. those that contain more than one verb
 each, you may separate the parts of such clusters
 in your sentences, e.g. you may put the subject
 after sayakūnu 'will be' and thus separate it from
yaqra? 'read(ing)' in sayakūnu yaqra? 'will be read(ing)'
 below. The same applies to other verbal clusters.
 (Temporal adverbials are like: 'in the morning',
 'when I saw him yesterday', 'before he travelled/
 travels', 'after graduation', 'now', 'at ten

o'clock', 'before', ...)

1. /katab/ = '(he) wrote'
2. /sayakūnu yaqra?/ = '(he) will be reading'
3. /satusāfir/ = '(she) will travel'
4. /kāna sayakūnu sāfar/ = '(he) would have travelled'
5. /yaktub/ = '(he) writes'
6. /kāna māshīyan/ = '(he) was walking'
7. /satakūnu nā?ima/ = '(she) will be sleeping'
8. /yakūnu yaktub/² = -
9. /kāna sayakūnu mahzūm/ = '(he) would have been defeated'
10. /yakūnu nā?im/ = -
11. /kāna yaktub/ = '(he) was writing'
12. /takūnu dhahabat/ = -
13. /kānat satusāfir/ = '(she) would/was to travel'
14. /sayakūnu sāfar/ = '(he) will have travelled'
15. /kāna (qad) katab/ = '(he) had written'
16. /kānat maksūra/ = '(it) was broken'
17. /sayakūnu mafhūm/ = '(it) will be understood'
18. /kāna sayakūnu nā?im/ = '(he) would have been sleeping'
19. /kāna sayakūnu yaktub/ = '(he) would have been writing'
20. /takūnu mahjūra/ = -

²No English translation is given for four of these verbal forms as any attempt to do so would be misleading. For the functions of these four verbal forms, however, you may refer to Chapter Six, Part Three.

2. Test Two

(i) Objectives

In this test, the examinees were given more freedom to choose among verbal forms for their sentences. Thus the frequency and the distribution of different verbal forms are more representative in the results of this test. Yet, both tests are to be taken as complementary for the purposes of the present study.

(ii) Format of the Test³

/da9i lʔaf9āl dākhīla lʔaqwās fi ṣṣiyaghi
llati taj9aluhā tu9abbir 9ani zzaman ʔalladhi
tushīru ʔilayhi ʔazṣurūfu zzamaniyya llati taḥtahā
khaṭ fi kulli jumla mina jjumali ttāliya:
(qabla lʔijāba lāḥiz mā yali bikulli 9ināya
rajāʔan:

(a) ʔalʔaf9āl dākhīla lʔaqwās fi kulli jumla
mina jjumal ʔadnāh mawjūda fi sīghati lmāḍi
lishshakhṣi ththālithi lmufrad. wa9inda taṣṣīhi
lʔaf9āl biʔimkānika ʔan tuḥawwila lfi9la ḥasba
mutaṭallabāt kulli jumla ʔilā ʔayyati sīgha
fi9liyya ʔukhrā mithil: yaktub, kāna yaktub, kāna
(qad) katab, sayakūnu sāfar, sawfa yusāfir, kāna
musāfir, kāna sayakūnu (qad) sāfar, ... wakadhālika

³For the Arabic format of this test, see Appendix C.

bi?imkānika ?an taḍaḡa lfiḡla fi ḥālati lmukhāṭab
 ?aw lmutakallim, wafi lmufraḍ ?awi lmuthannā ?awi
 jjamiḡ, wakadhālika fi lmu?annath ?awi lmudhakkar.

(b) tastatḡ ?an tuḡaddim ?aw tu?akhkhir fi
 tasalsuli lkalimāt fi kullin mina jjumal ?adnāh
 ?idhā mā ḍaḡati lhāja lidhālik.)

"Put the verbs in parentheses into the forms
 which make them express the time indicated by
 the underlined temporal adverbials in each of the
 following sentences:

(Before answering, please notice the following
 very carefully:

(a) Verbs in parentheses in each of the sentences
 below appear in the past form for the masculine
 third person singular. When correcting the verbs,
 you may change the verb according to the require-
 ments of each sentence to any other verbal form,
 e.g. '(he) writes', '(he) was writing', '(he)
 had written', '(he) will have travelled', '(he)
 will travel', '(he) was travelling', '(he) would
 have travelled', ... You may also put the verb
 in the second or third person; in the singular,
 dual, or the plural; and also in the feminine or
 masculine forms.

(b) You may change the sequence of words in
 the sentences below if necessary.)

1. /ʔana (qaraʔ) hādha lkitāb fi lmādi/
'I (read) this book in the past.'
2. /ʔabi (dhahab) ʔila ssīnama kulla ʔusbū9
9indamā kāna shābban/
'My father (went) to the cinema every week
when he was young.'
3. /ʔinnahu (jalas) bilḥadiqa 9indamā marartu
9alā dārihi bilʔams/
'He (sat) in the garden when I passed by his
house yesterday.'
4. /qāla biʔannahu (sāfar) ba9da takharrujihi
lawlā wafāt wālidihi/
'He said he (travelled) after his graduation
but for his father's death.'
5. /naḥnu (sami9) hādhihi lʔughniya kathīran
hādhihi lʔayyām/
'We (heard) this song a lot these days.'
6. /ʔana (shāhad) hādha lfilim marratayn qabla
lʔān/
'I (saw) this film twice before.'
7. /ʔalʔatfālu (kabur) bisur9a 9ādatan/
'Children (grew up) quickly usually.'
8. /ʔidhā (sāfar) salīm ʔilā baghdād bilmustaqbal,
faʔinnahu sayazūru lmathafa lbaghdādi ḥatman/
'If Salīm (travelled) to Baghdad in the future,
he will certainly visit the Baghdadi Museum.'

9. /(sāfar) salīm ?ilā baghdād ghadan/
'Salīm (travelled) to Baghdad tomorrow.'
10. /law (daras) jayyidan fi 19āmi lmādi lamā rasab/
'If he (studied) well last year he wouldn't have failed.'
11. /9indamā taraktuhu bil?ams, (katab) risāla
?ilā wālidihi ba9da qalīl. walākin yabdu
?annahu qad ghayyara ra?yahu ba9da mughādarati/
'When I left him yesterday, he (wrote) a letter to his father after a short while. But it seems that he changed his mind after my departure.'
12. /?ana (katab) risāla 9indamā nqata9a ttayyāru
lkahrabā?i fi llayla lmādiya/
'I (wrote) a letter when there was a power cut last night.'
13. /lam (sāfar) salīm ?ilā baghdād sābiqan/
'Salīm (not travelled) to Baghdad before.'
14. /huwa lā yazāl (dhahab) ?ila ssīnama marra
wāhida kulla shahr/
'He still (went) to the cinema once a month.'
15. /?a9taqīdu ?annanā lan najid-hu bilbayt 9inda
dhihābinā ghadan li?annahu (qara?) fi lmaktaba
hīnadhāk/
'I believe we won't find him at home when we go tomorrow as he (read) in the library then.'

16. /ʔana (sami9) hādhihi lʔughniya 9iddata marrāt
min qablu/

'I (heard) this song many times before.'

17. /(daras) salīm fi lmaktaba tuwāla yawmi ʔams/

'Salīm (studied) in the library all day
yesterday.'

18. /huwa (sāfar) fi ʔayyati lahza ba9da lʔān/

'He (travelled) any moment now.'

19. /(sāfar) ʔakhi ʔilā baghdād qabla safari

ʔilayhā fi lʔusbū9i lmādi/

'My brother (travelled) to Baghdad before
I did last week.'

20. /ʔalmuhādara (ntaha) lʔān lawlā ʔasʔilatu

lhādirīna lkathīra/

'The lecture (ended) now but for the many
 questions from the audience.'

21. /zaki (dhahab) ʔila ssīnama ma9i ba9da nihāyati

lʔimtihān ghadan/

'Zeki (went) to the cinema with me after the
end of the exam tomorrow.'

22. /ʔana (zāra) lma9riḍ yawmammā bilʔusbū9i lqādim/

'I (visited) the show one day next week.'

23. /(ʔanhā) salīmu lkitāba qabla ssā9a lkhāmisa

ghadan/

'Salīm (finished) the book before five o'clock
tomorrow.'

24. /salīm (qara?) bilmaktaba tuwāla yawmi lghad/
'Salīm (read) in the library all day tomorrow.'
25. /hiya (katab) risāla ?ilā ?ummiḥā l?ān/
'She (wrote) a letter to her mother now.'
26. /(kabur) hādhihi shshajara kathīran fi ssana
lmādiya/
'This tree (grew) a great deal last year.'
27. /(marid) salīm tuwāla l?usbū9i lmādi/
'Salīm (was sick) all last week.'
28. /salīm (qara?) kathīran hādhihi l?ayyām/
'Salīm (read) a lot these days.'
29. /(sāfar) nabīl ?ilā landan yawma ?ams/
'Nabīl (travelled) to London yesterday.'
30. /?inna lbāb (kusir) qabla wusūli ?ila ddār
bil?ams/
'The door (was broken) before my arrival at
the house yesterday.'

(C) Analysis of Responses

In the table below, all different verbal forms
that ~~have~~^{been} found in the data of Tests One and Two are
given. Their frequency of occurrence in both tests is
also given for indicative purposes.

TABLE 48
 TYPES AND FREQUENCIES OF ARABIC
 VERBAL FORMS FOUND IN THE DATA
 OF TESTS I & II

No.	Model Verbal Form	Frequency of Occurrences		Total
		Test I	Test II	
1.	/yaf9a1/	49	467	516
2.	/fa9a1/	60	609	669
3.	/yakūnu yaf9a1/	100	3	103
4.	/kāna fa9a1/	54	93	147
5.	/sayaf9a1, sawfa yaf9a1/	69	341	410
6.	/kāna sayaf9a1/	55	25	80
7.	/yakūnu fā9i1/	102	1	103
8.	/kāna fā9i1/	49	63	112
9.	/yakūnu maf9ū1/	83	-	83
10.	/kāna maf9ū1/	56	4	60
11.	/yakūnu yaf9a1/	48	5	53
12.	/kāna yaf9a1/	54	128	182
13.	/sayakūnu yaf9a1/	51	1	52
14.	/kāna sayakūnu yaf9a1/	34	-	34
15.	/sayakūnu fa9a1/	41	1	42

contd...

Table 48 contd.

No.	Model Verbal Form	Frequency of Occurrences		Total
		Test I	Test II	
16.	/kāna sayakūnu fa9a1/	35	6	41
17.	/sayakūnu fā9i1/	61	2	63
18.	/kāna sayakūnu fā9i1/	40	-	40
19.	/sayakūnu maf9ū1/	55	-	55
20.	/kāna sayakūnu maf9ū1/	41	-	41

The question of the Arabic tense system thus becomes more delimited. What is needed is an analysis that will account for the formal characteristics and the temporal distribution of all and each of the above twenty verbal forms. Such an analysis, furthermore, has to be based on sound linguistic assumptions and in line with the intuitive feelings of native Arabs.⁴

⁴Curiously enough, Literary Arabic is one of very few languages in the world which can be said to have no native speakers in the strict sense of the word.

CHAPTER TWO

SURVEY AND CRITIQUE OF RELATED LITERATURE

(A) Introduction

Data-analysis of Tests One and Two has shown that verbal forms in Arabic may be of any of the following patterns; using the verb fa9al as a cover sign for all triliteral verbs:¹

- | | |
|---------------------|--------------------------|
| 1. yaf9al | 2. fa9al |
| 3. sayaf9al | 4. kāna sayaf9al |
| 5. yakūnu yaf9al | 6. kāna yaf9al |
| 7. yakūnu fa9al | 8. kāna fa9al |
| 9. yakūnu fā9il | 10. kāna fā9il |
| 11. yakūnu maf9ūl | 12. kāna maf9ūl |
| 13. sayakūnu fa9al | 14. kāna sayakūnu fa9al |
| 15. sayakūnu yaf9al | 16. kāna sayakūnu yaf9al |
| 17. sayakūnu fā9il | 18. kāna sayakūnu fā9il |
| 19. sayakūnu maf9ūl | 20. kāna sayakūnu maf9ūl |

For any temporal analysis of the above twenty verbal forms, the following points are to be taken into consideration:

(1) Verbal phrases that have their final components as /yaf9al/ indicate the same temporal locations as those of their corresponding shorter verbal forms that lack

¹ Notice that quadriliteral verbs have similar verbal patterns in Arabic.

such a component. The verbal phrase /kāna yaf9al/, for example, indicates the same temporal position of /kāna/ or /fa9al/. The component /yaf9al/ does have a certain temporal value of its own as a verb, but it has nothing to do with deciding the tense of the verbal phrase whose final component it forms.² Thus in a basic analysis of tense as such, forms like /kāna yaf9al/ will be initially excluded as possessing no unique tense characteristics of their own. This same decision also applies to all other verbal phrases listed above whose final components are of the form /yaf9al/. Thus verbal phrases numbers 5, 6, 15, and 16 on the above list are to be put aside for the time being.

(2) Verbal phrases whose last component is either /fā9il/ or /maf9ūl/ are similar to those whose last component is /yaf9al/ in that both have no unique locations on the temporal chart, i.e. no characteristic tense value. The temporal location of /kāna fā9il/ is exactly that of /kāna/ or /fa9al/. The active and passive participles /fā9il/ and /maf9ūl/ indicate temporal features other than that of tense as such.³

² The specific temporal value of non-initial /yaf9al/ is the subject of a later discussion.

³ The characteristic temporal value of such forms as /fā9il/ and /maf9ūl/ is the subject of a detailed analysis later in this study.

Hence, all verbal phrases whose final components are either /fā9il/ or /maf9ūl/ do not initially have a place in a classification whose main aim is to find out the various temporal locations of various verbal forms. Accordingly, verbal phrases numbers 9, 10, 11, 12, 17, 18, 19, and 20 on the above verbal list are also laid aside temporarily.

(3) The verbal phrase /yakūnu fa9al/ is, as will be shown later, not used in Arabic to indicate a unique temporal value either. The temporal value it indicates is either assumed by other verbal forms or is not limited to a single basic temporal location.⁴ A discussion of this verbal form is thus postponed now since the main objective at this stage is to work out a temporal distribution of fixed locations and values for Arabic forms. The same decision applies to the Arabic verbal phrase /yakūnu sayaf9al/ which, though missing from the tests data reported earlier, does still exist in Arabic and will be discussed later.⁵

We are thus only left with the following seven

⁴ See later in Chapter Four and in Chapter Six for specific functions of this verbal form.

⁵ See p. 496

primary verbal forms for our present temporal classification:⁶

- | | |
|--------------------|-------------------------|
| (a) yaf9al | (b) fa9al |
| (c) sayaf9al | (d) kāna fa9al |
| (e) sayakūnu fa9al | (f) kāna sayaf9al |
| | (g) kāna sayakūnu fa9al |

Before proceeding with the analysis of the Arabic tense system proposed in the present study, it is worthwhile to consider how other writers have treated the question of tense in Arabic, as well as in some other related languages, and how far such treatments account for the seven primary verbal forms just listed above. Both traditional and modern studies will be reviewed in this chapter for relevance and criticism.

(B) Works Published in Arabic

(1) 'Al-Kitāb' by Sībawayh

In this basic classical treatise of Arabic grammar written in the eighth century, it is surprising to find how superficial and sketchy the treatment of Arabic tense is. At the beginning of his book, Sībawayh defines verbs as forms indicating actions that are perfect or actions that are imperfect.⁷ The latter

⁶ These verbal forms are considered 'primary' as it is supposed that each indicates a unique temporal reference. Other verbal forms do not have unique temporal references and are therefore called 'secondary.'

⁷ Sībawayh, Al-Kitāb (Paris: 1881), Part 1, p.5,

category includes both actions that are taking place and those that are only expected (p.5). For the 'perfect' category of actions, Sībawayh gives verbs like /dhahab/ 'went', /sami9/ 'heard', and /makuth/ 'stayed'; for the 'imperfect' he lists present verbs like /yadhhab/ 'goes', /yadrib/ 'hits' as well as imperative verbs like /ʔidh-hab/ 'go' and passive verbs like /yudrab/ 'is beaten' (p.5). In the above definition of verbs, it is interesting to notice that Sībawayh does not mention time specifically; he rather speaks of the aspect of the action indicated by the verb, viz. perfection vs. imperfection. This has since become a popular attitude taken by both ancient and modern grammarians when dealing with Arabic tense. In the above definition also, Sībawayh indicates that verbs like /dhahab/, /sami9/ and /makuth/ all function similarly. This latter view, however, does not seem to have been as widely adopted as that of aspect. One often comes across statements made by both Arab and European grammarians that Arabic verbs like /sami9/ and /makuth/ do not indicate perfect or past action but rather permanent states.⁸ 'It is perhaps strange to see that Sībawayh in his above definition of verbs mentions the imperative verb /ʔidh-hab/ as an imperfect

⁸ Examples of such views will be mentioned later in this survey of literature.

verbal form, but does not mention verbs like /sayaf9al/ or /sawfa yaf9al/.

Out of the seven primary verbal forms listed at the outset of this chapter, Sībawayh mentions only two, viz. the simple present /yaf9al/ and the simple past /fa9al/. Elsewhere in his book, he also mentions two secondary verbal forms. These are: (p.70)

(a) /hādhā dāribun zaydan ghadan/

' This (man) (is) hitting Zayd tomorrow.'⁹

(b) /hādha dāribun 9abdullāh ssā9ata/

' This (man) (is) hitting Abdulla now'.

(c) /hādha qātilu 9amrin ?amsi/

' This (man) (was) killing Amrin yesterday.'

In the first sentence above, Sībawayh says, the participle has a future reference whereas in the second it refers to a simultaneous present (p.70). In the third sentence, however, the participle /qātilu/ refers to a past time (p.73). Nunation of participles, Sībawayh claims, is essential for present and future time reference whereas it is to be omitted for past-time reference. Sībawayh, however, seems to have ignored a vital factor in the above three sentences, viz. the presence of temporal adverbials in all of them. One may be justified in saying that it is not the

⁹ Items in parentheses represent forms that do not exist in the Arabic original sentence.

participle /dāribun/ that indicates futurity in the first sentence above, for example; it is rather the temporal adverbial of futurity /ghadan/ 'tomorrow.' The same argument could be applied to the other two sentences.

(ii) Al-Makhzūmi's 'Fi Nnahwi L9arabi'

Al-Makhzūmi criticizes the 'logical' or the 'philosophical' approaches that ancient Arab grammarians applied to the study of the subject of tense in Arabic. As an alternative, he suggests a descriptive approach based on (1) classifying verbs into their different forms, and (2) assigning temporal values for all different verbal forms by observing their various linguistic functions.¹⁰ It is rather disappointing, however, to find that Al-Makhzūmi himself does not apply his proposed approach in his own description of Arabic tense. In the chapter which deals with tenses in Arabic, he only mentions the following four out of the seven primary verbal forms listed earlier:

- | | |
|-------------|-----------------|
| a. /fa9al/ | b. /kāna fa9al/ |
| c. /yaf9al/ | d. /sayaf9al/ |

Al-Makhzūmi also mentions the following two secondary verbal forms:

¹⁰ Mahdi Al-Makhzūmi, Fi Nnahwi L9arabi (Beirut: Al-Maktaba L9aṣriyya, 1964), p.114.

a. /kāna yaf9a1/ and

b. /kāna fā9i1/

Thus out of the seven primary verbal forms, Al-Makhzūmi only lists four, and out of the remaining thirteen secondary forms, he only gives two.¹¹

Though obviously Al-Makhzūmi fails in application, his theoretical approach to the study and analysis of tense is linguistically sound. It may thus be worthwhile to go over some of its prominent features. Al-Makhzūmi first makes the useful distinction between two kinds of 'time' when studying tense,: philosophical time and linguistic time (p.154). Another valuable distinction he makes is between form and function. Though he classifies /fā9i1/ and /maf9ū1/ as verbs formally, (p.119), Al-Makhzūmi rightly points out that these verbal forms function verbally only in some definite syntactic environments and may function non-verbally elsewhere (p.126). Al-Makhzūmi criticizes those Arabists who claim that the Arabic tense system is not time-centred and that Arabic is very poor in the number of tenses it has. Al-Makhzūmi points out that such conclusions are based on the inadequate analyses of ancient Arab grammarians like Sībawayh and Ibn Ya9īsh

¹¹ See p.405 for the twenty Arabic verbal forms.

and others; and that such conclusions are erroneous and unobjective as they are not based on observing actual modern Arabic usage (pp.146-147).

In his analysis of tense in Arabic, Al-Makhzūmī classifies verbs basically into past, present, and permansive (p.119). For the past and present, he gives the representative verbal forms /fa9a1/ and /yaf9a1/ respectively. For the permansive variety of verbs, Al-Makhzūmī gives the forms /fā9i1/ and /maf9ū1/. He then mentions the following sentences in which the form /fā9i1/ functions verbally: (p.158).

1. /zaydun qāʔimun/
'Zayd (is) standing'.
2. /ʔana sāʔimu yawmi lkhamīs/
'I (am) fasting on Thursday'.
3. /ʔana kātibun risālatan/
'I (am) writing a letter'.
4. /Baynamā kuntu wāqifan, .../
'While I was standing, ...'

Al-Makhzūmī points out that /fā9i1/ has four different temporal values in the above four sentences. In the first sentence, it indicates 'continuity'; in the second, 'pastness'; in the third, 'futurity'; and in the fourth, 'past continuity'.

However, Al-Makhzūmī does not mention anything at all about his criteria for labelling the forms of

/fa9il/ as verbal in sentences such as the above but not elsewhere.

(iii) Aṣ-Ṣamarraʿi's 'Alfi9lu: Zamānuhu wa ʿabniyatuhu'

Aṣ-Ṣamarraʿi's book is completely dedicated to the study of time and tense in Arabic verbs, as the title of the book indicates. One would therefore expect a more detailed analysis and a more complete description of the Arabic tense system than that by Al-Makhzūmi. Yet it seems that the book fails to put forward any satisfactory outline for the Arabic tense system and that the study is more of a morphological inventory of verbal forms than of a study of tense.

Like Al-Makhzūmi, Aṣ-Ṣamarraʿi mentions only four out of the seven primary verbal forms. He first mentions the verb /fa9al/ and lists some of its functions. Then he does the same with the verb /yaf9al/. Though Aṣ-Ṣamarraʿi also mentions verbal forms /kāna fa9al/ and /sayaf9al/, like Al-Makhzūmi, he lists the former under the heading of /fa9al/ and the latter under /yaf9al/. Both Al-Makhzūmi and Aṣ-Ṣamarraʿi refuse to give /kāna fa9al/ and /sayaf9al/ the same status of /fa9al/ and /yaf9al/ respectively. As will be shown later, they may be justified in doing so; but they do not explain why they have done so. Moreover, neither of the two writers has tried to investigate the various functions of these two verbal forms,

viz. /kāna fa9al/ and /sayaf9al/, apart from saying that the former indicates distant past and the latter futurity.¹² This very brief analysis and secondary status of the verbal form /sayaf9al/, in particular, seems inconsistent with Aš-Sāmarraʿi's initial classification of Arabic verbs into past, present, and future (Sāmarraʿi, p.24).

Aš-Sāmarraʿi, like Al-Makhzūmi, also mentions that verbal forms like /fā9il/ and /maf9ul/ can function verbally in some situations (Sāmarraʿi, P.34). Yet, he too does not give any criterion for distinguishing between the verbal and non-verbal functions of such forms. The two writers, however, differ about the status of /fā9il/ in such sentences as /zaydun qāʿim/. Al-Makhzūmi, as has already been said, regards /qāʿim/ as verbal in the sentence above, whereas Aš-Sāmarraʿi says it has a non-verbal function here (p.34). Moreover, Al-Makhzūmi considers /kāna fā9il/ as verbal in sentences such as /kāna muḥammad mariḥan/ (Makhzūmi, P.158) whereas Aš-Sāmarraʿi says it is not verbal (Sāmarraʿi, P.46). Aš-Sāmarraʿi adds that the infinitive could also function verbally and gives the following sentence as representative of such functions (p.41): /yu9jibuni ʿikrāmaka ddayfa/

I2

(a) Al-Makhzūmi, Ibid, p.156 & p.159.

(b) Ibrāhīm Aš-Sāmarraʿi, Al-Fi9lu: Zamanuhu wa-ʿabniyatuhu (Baghdad: Maṭbaʿatu L9ani, 1966), p.29 and p.32.

'I like your entertaining the guest'.

The infinitive /ʔikrāmaka/, Aṣ-Ṣamarraʔi claims, can refer to pastness, presentness, or futurity. How, then, can one understand the exact temporal reference of infinitives? The value of such temporally-vague so-called tense form is very doubtful indeed. Hence, Aṣ-Ṣamarraʔi's classification of some infinitives as verbals is questionable.

A common phenomenon with both Aṣ-Ṣamarraʔi and Al-Makhzūmi is that both writers do not make any distinction between systematic functions and non-systematic functions of verbal forms. They both mention, for example, that the verb /fa9al/ is used to denote pastness as well as futurity and presentness in some cases. For the latter two functions, Aṣ-Ṣamarraʔi gives the following sentences respectively: (p.41)

1. /zawwajtuka/ (said by the judge in marriage ceremonies)

(I married you)¹³

' I marry you '.

2. /ʔidhā jiʔtani ʔakramtuka/

(If you came to me I honoured you)

' If you come, I'll honour you. '

¹³ Sentences appearing in parentheses represent literal translations of Arabic sentences, whereas those appearing between inverted commas represent free English translations.

Both writers seem to ignore the fact that such functions of the verb /fa9a1/ as in the two sentences above are only met in few linguistic situations, whereas its reference to past time is the most frequent and the basic one.

As-Sāmarraʿi, however, makes many worthwhile points throughout his discussion of Arabic tense. The most important of all perhaps is his emphasis on the importance of verbal phrases in the Arabic tense system (p.25). He specifically points out the special place of the auxiliary verb /kāna/ in all such phrases. Yet again he does not list all such verbal phrases in Arabic. He only gives the following three: (pp. 29-31)

1. /kāna fa9a1/
2. /yakūnu fa9a1/
3. /kāna yaf9a1/

The first verbal form above is one of the seven primary ones in Arabic already mentioned in the beginning of this chapter. As for the second one, As-Sāmarraʿi points out that Arabic uses it to indicate earlier-future (p.30). This is certainly true, though it is neither the only function nor even the basic one of this verbal form. This verbal form is often found in sentences like the following:

/fi ssā9a ththāmina kulla ṣabāḥ, yakūnu lwalad dhahab

ʔila lmadrasa/

'By eight o'clock every morning, the boy (will) have gone to school.'

where it is used to indicate 'earlierness' with respect to a point of time that is repeated in the past, present, and future.

Regarding the temporal value of the third verbal phrase, viz. /kāna yaf9al/, Aṣ-Ṣamarraʔi gives two contradictory analyses. On page 31, he claims that such verbal forms indicate existence only and are therefore void of any temporal value. For such an 'existential' function, he gives the following example:

/kāna muḥammad lā yufāriqu dārahu/

'Mohammad used not to leave his house.'

Yet, a little later in the same chapter, Aṣ-Ṣamarraʔi points out that /kāna yaf9al/ indicates continuity in the past (p.33). He then gives the following sentence, which is similar to the above one, as representative of this temporal value: (p.34).

/wakāna lbuḥturi lā yufāriqu bāba lkhalīfa/

'Al-Buḥturi used not to leave the door of the Caliph.'

It is interesting to notice that Aṣ-Ṣamarraʔi, like many other both native and non-native grammarians, points out that verbs like /fa9ul/ and /fa9il/ do not indicate pastness in Arabic and have no temporal value

at all. It would be worthwhile to investigate this claim, as indeed will be done later, and see whether it has any supporting evidence in the actual usage of native Arabs.

It can finally be said in conclusion that Aṣ-Ṣamarraʿi's treatment of Arabic tense is unsatisfactory on the whole. Its chief drawback lies in its failure to reveal any basic system in the tense structure and to account for its full facts. It only lists and describes a small fraction of Arabic verbal forms.

(iv) Anīs's 'Min Asrārī Lluḡha'

Anīs starts his discussion of time and tense by mentioning the traditional division of time into seven logical divisions as follows:¹⁴

/qabla lmāḍi/	/ʔalmāḍi/	/ba9da lmāḍi/
'before past'	'past'	'after past'
/ʔalhāḍir/	/qabla lmustaḡbal/	/ʔalmustaḡbal/
'present'	'before future'	'future'
/ba9da lmustaḡbal/		
'after future'		

He then goes on to say that most Semitic languages use few tenses to indicate the various divisions of time rather vaguely (p.153). He also reiterates the view

¹⁴ Ibrāhīm Anīs, Min Asrārī Lluḡha (Cairo: 1966, third printing), p.152

held by many Semitists that Semitic verbs refer to completion versus incompletion of actions rather than to their various times of occurrence (p.154). Anīs then refers to Arabic specifically and points the 'erroneous' approach that associates specific verbal forms with specific times only (p.157). In this respect, he gives many instances where the form /fa9al/ is used for non-past reference, for example (pp.157-160). Anīs, however, does not specify the linguistic environments which permit such uses of /fa9al/. Surely, native Arabs are not completely free to use any verbal form they like to indicate any time in any linguistic environment.

As can be seen from the above brief discussion, Anīs does not try in his book to go into the details of the structure of the Arabic tense system. He rather deals with techniques and approaches than with actual description and application. Yet, he has some interesting points on verbal forms in Arabic that might be worthwhile to mention briefly in this survey. Basically, Anīs seems to be interested in the vowel patterns of simple-past and simple-present verbal forms in Arabic. The written nature of Classical Arabic, he says, and the fact that Arabic orthography does not indicate short vowels graphically have led to many

variations in the quality of vowel patterns in Arabic verbs (pp.32-33). As a measure of acceptability, Anīs believes the best solution is to resort to the Holy Qurān since its oral readings have traditionally been well-known and well-preserved. In the Qurān, Anīs counts only 133 verbs that appear in both their past and present forms. Only two of these are of the pattern /fa9ul ~ yaf9ul/ with the medial vowel /u/ in both verbal forms. Twenty-four verbs only have their past forms on the pattern of /fa9il/ and the majority, i.e. one hundred and seven verbs, follow the common pattern of /fa9al/ (pp.35-36). To form the simple present from the past forms or vice-versa, the principle of polarity seems to be mostly effective in determining the quality of the medial vowel (p.36). Thus /fa9al/ has the simple-present form of /yaf9il/ or /yaf9ul/ whereas /fa9il/ always has /yaf9al/ as its present (p.36). Adjacent sounds may also affect the quality of medial vowels in verbs, as in:

/fataḥ ~ yaftaḥ/	'(he) opened ~ opens'
/naza9 ~ yanza9/	'(he) took off ~ takes off'
/nafakh ~ yanfakh/	'(he) blew up ~ blows up'

It is to be noticed that there is a pharyngeal or glottal sound adjacent to the medial vowel in each of

the above-mentioned three verbs.

(v) Ash-Shartūnī's 'Mabādī?u L9arabiyya'

This is a school grammar book written to serve as a textbook for native students of Arabic grammar. Yet, like other traditional school grammars, it is weak in the treatment of the Arabic tense system. Out of the seven primary verbal forms, it only briefly mentions four. These are:¹⁵

- | | | |
|-----|--------------|------------------|
| (a) | /fa9al/ | = 'perfect' past |
| (b) | /kāna fa9al/ | = 'earlier' past |
| (c) | /yaf9al/ | = 'present' |
| (d) | /sayaf9al/ | = 'future' |

He also mentions very briefly only one of the secondary forms viz. /yakūnu fa9al/ and assigns it the temporal value of 'earlier future' (p.11). The author does not go in any detail into the various functions of each of the above-mentioned verbal forms. Moreover, he mentions the temporal value of these forms only casually.

The book is rich in the field of verbal conjugations and formal irregularities within the Arabic verbal system. It might be relevant here just

¹⁵ Rashīd Ash-Shartūnī, Mabādī?u L9arabiyya
(Beirut: Lmatba9a Lkatholīkiyya, tenth printing, book 4, 1963), pp. 10-11.

to mention the different verbal patterns that a verb may formally assume in the simple-past and simple-present forms: (p.14).

<u>Simple Past</u>	<u>Simple Present</u>	<u>Examples</u>
(a) /fa9a1/	/yaf9i1/	e.g. /jalas/ /yajlis/ 'sat' 'sits'
(b) /fa9a1/	/yaf9u1/	/naṣar/ /yansur/ 'helped' 'helps'
(c) /fa9a1/	/yaf9a1/	/fataḥ/ /yaftaḥ/ 'opened' 'opens'
(d) /fa9i1/	/yaf9i1/	/ḥasib/ /yaḥsib/ 'supposed' 'supposes'
(e) /fa9i1/	/yaf9a1/	/ʿalim/ /yaʿlam/ 'knew' 'knows'
(f) /fa9u1/	/yaf9u1/	/karum/ /yakrum/ 'was noble' 'is noble'

Ash-Shartūnī does not, however, try to indicate that some of the above patterns occur only in a very few verbs in Arabic whereas others are very commonly used.

It is also interesting to see that in his definition of the infinitive, the writer emphasizes that it has nothing to do with time and that it only states an action or a state (p.55). In dealing with the active participle, however, the author says that it does have a temporal value and it can refer to any of the three

times of past, present, or future (p.65). He then gives the following three sentences where the active participle is functioning verbally: (p.248).

1. /zaydun qaʔimun ʔabūhu/

'Zayd's father (is) standing'.

2. /ʔana shākirun himmataka/

'I (am/will be) thankful (for) your enthusiasm'.

3. /kuntu shākira himmatika/

'I was thankful (for) your enthusiasm'.

In sentence two above, the writer explains, the present participle indicates presentness or futurity; in three, it indicates pastness. The writer does not seem to notice that it is /kuntu/ rather that indicates pastness in the third sentence above.

(vi) Furayḥa's 'Naḥwa ʔrabiyya Muyassara'

Furayḥa mentions the relationship between verbs and time very briefly in his book which is a plea for the standardization of Spoken Arabic. In this respect, he holds the time-honoured view of Semitists that the verbal systems of all Semitic languages do not indicate a definite and a clear-cut segmentation of time, as compared to the Indo-European tense system.¹⁶ It is the aspect of completion or incompleteness of the action at the time of speech that matters in Semitic languages

¹⁶ ʔaḥmad Furayḥa, 'Naḥwa ʔrabiyya Muyassara'
(Beirut: Daru Ththaqafa, 1955), p. 128.

rather than the time of action (p.128). Time is only a by-product of completion or incompleteness: whatever is complete at a specific point necessarily took place in the past of that point and whatever is incomplete can only be present then (p.128).

Furayḥa, however, later modifies his above generalization on Semitic languages. Arabic, he says, is able to deal with the various segmentations of time linguistically better than other Semitic languages (p.128). It does so with the help of auxiliary verbs and some particles (p.128). Yet, Furayḥa believes, Arabic is still less temporally definite and precise than English, French, or German, for example (p.128). Furayḥa's views are by no means uncommon, as has just been said. Yet, unfortunately neither he nor any other adherents of such views from both Arabs and non-Arabs have tried to analyze the verb system of Modern Literary Arabic descriptively in order to investigate the extent of truth in such commonly-held concepts.

(C) Works Published in English

I. Books

(1) Wright's 'Grammar of the Arabic Language'

Wright's is one of the classical references on Arabic grammar. In this analysis of Arabic grammar,

however, Wright's views do not seem to differ much from those of ancient Arab grammarians. As far as tense is concerned, Wright begins his analysis of the subject by limiting the use of the term 'tense' to simple verbal forms only. This attitude is compatible with that which has been recently held for English.¹⁷ In this respect, Wright states that "the temporal forms of the Arabic verb are but two in number, the one expressing a finished act ... (The Perfect); the other an unfinished act ... (the Imperfect)."¹⁸ From the above quotation, it is clear that Wright adopts Sībawayh's attitude which has been mentioned earlier, viz. that temporality in Arabic verbs is more of the nature of aspect than of tense.¹⁹ Wright further clarifies this point when he says a little later that "a Semitic Perfect or Imperfect has, in and of itself, no reference to the temporal relations of the speaker (thinker or writer) ..." (p.51).

Of the seven primary verbal forms, Wright mentions only four. These are: (pp. 1-19, vol.2).

- | | |
|--------------|------------------|
| (a) /fa9al/ | (b) /kāna fa9al/ |
| (c) /yaf9al/ | (d) /sayaf9al/ |

¹⁷ See criticism of this attitude on p.99 in the present study.

¹⁸ W. Wright (ed.) A Grammar of the Arabic Language (Cambridge: The University Press, 1967, Vol.1, third edition), p.51.

¹⁹ See p. 409 in the present study.

He lists forms in the second column above as variations of those in the first one. For verbs (a) and (c) above, Wright gives many functions without any attempt to sort out the systematic functions from the non-systematic ones. He gives equal status, for example, to the use of the verb /fa9a1/ to refer to "an act completed at some past time" (p.1, Vol. 2.), and to its asseverative use which is only found in a very few cases in Arabic.²⁰ It is interesting to notice that in relation to the verb /yaf9a1/ above, Wright says that it "does not in itself express any idea of time; it merely indicates a begun, incomplete, enduring existence, either in present, past, or future time" (p.18, Vol. 2).

In addition to the above four primary verbal forms, Wright mentions four secondary ones elsewhere in his book. These are: (pp. 21-22 and 196, Vol. 2)

- | | |
|-------------------|--------------------|
| (a) /kāna yaf9a1/ | (b) /yakūnu fa9a1/ |
| (c) /kāna fā9i1/ | (d) /kāna maf9ū1/ |

For the first verbal form above, Wright gives such examples as: (p.21, Vol. 2)

1. /kāna yuḥibbu shshi9ra/ = 'He was fond of poetry.'
2. /kāna yarkabu fi kulli yawm 9iddata mirārīn/ =
'He used to ride out everyday several times.'

²⁰ See p. 541 in the present study.

Wright, However, does not mention the very common use of such forms in sentences like:

/kāna yaqra? 9indamā dakhaltu/

'He was reading when I entered.'

As for the verbal form (b) above, Wright says that it indicates perfection in the future and gives the following example for its use:²¹

/ wasa?asta?jiru ?aqwāman yahmilūnahu ?ilā manzili
wa?akūnu ?ana ?āakhirahum walā yakūnu baqiya warā?i
shay?un ... /

'and I shall hire some people to carry it to my house, and I shall be the last of them (to depart), and there shall not have been left (shall not be left) behind me anything ...'

Regarding the status of the active and passive participles, Wright realizes that they can be used in Arabic both verbally and non-verbally. In this respect, he says that "these are not only real participles, indicating a temporary transitory or accidental action or state of being, but also serve as adjectives or substantives, expressing a continuous action, a habitual state of being, or a permanent quality" (p.133, Vol. 1). Still, Wright does not give any criteria for distinguishing

²¹ Wright, p. 22, Vol. 2 (underlining is mine)

between verbal and non-verbal uses of participles in Arabic. As for the time reference of participles, Wright says that it "can be deduced from some other word in the sentence, which points to a specific time, ... or from the connection of the context" (p.195, Vol.2). The active participle thus refers to the future in a sentence like:

/zaydun nākihun ibnuhu ghadan zubaydata/

'Zayd's son is to be married tomorrow to Zubayda'.

In reference to the temporal value of verbal forms /kāna fā9il/ and /kāna maf9ūl/, Wright states that "when the perfect /kāna/ is prefixed to a concrete verbal noun which refers to the future, the idea of futurity is transferred to a past time (p. 196, Vol. 2). He then gives the following verbal phrases as examples: (p. 198, Vol. 2).

(a) /kāna nāzilan/ 'He was dwelling'.

(b) /kānat markūzatan/ 'They (the spears) were sticking
(in the ground)'.

By way of conclusion, it may suffice to say that Wright's grammar, though comprehensive, is unrepresentative of the facts of the tense system of present-day Literary Arabic. He analyzes the details of tense in Arabic neither formally nor functionally. His treatment, nevertheless, still remains a valuable

source of references for tense in Arabic in that it gives numerous examples that can be suitably used for the deduction of useful principles and conclusions. It is to be remembered, however, that these examples are almost exclusively drawn from ancient traditional sources that represent a variety of Arabic more or less different from what is used today.

(ii) Driver's 'Problems of the Hebrew Verbal System'

This study is reviewed here for two reasons:

(1) because of the close genetic relationship between Arabic and Hebrew, and (2) because of Driver's frequent references to the Arabic verbal system. In the very outset of his study, Driver points out that "the problem of the Semitic tenses is complicated."²² Historically, he says, the original verbal form in Semitic languages was /yaf9ul/ (p.9). In the course of time, the forms /fa9al/, /fa9il/ and /fa9ul/ came to be used (p.10). This emergence of the later verbal form /fa9al/ in particular 'marks the end of timelessness' in the Semitic languages (p.13). "Only at this stage of development," Driver asserts, "is it proper to speak of tenses in the Semitic languages" (p.13).

On the point of the various vowel patterns in

²² G.R. Driver, Problems of the Hebrew Verbal System (Edinburgh: T. & T. Clark, 1936), p.1.

Arabic verbs, Driver seems to agree with those who believe that "the identity of vowels in the perfect {i.e. simple-past verbs} as against the variety of them in the imperfect {i.e. simple-present}... is a mark of late schematization" (p.20). From his own examination of Akkadian and Hebrew verbs, Driver comes to the conclusion that the question of explaining vowel patterns in verbs is far from being simple. Different factors seem to be functioning in every case. The major factors for determining the quality of vowels in verbs, Driver concludes, are three: (p.72)

- (a) Meaning of the verb: whether it indicates 'stativity', 'passivity' or 'activity'.
- (b) Assimilation to neighbouring sounds.
- (c) Polarity, i.e. "the principle of choosing for one form the vowel furthest removed from or in sense opposite to that in some other form"

Driver adds that the three conditioning factors mentioned above, however, "frequently overlap one another in the determination of the characteristic vowel in any given form" (p.73). The whole picture thus seems fuzzy and mixed up. One wonders if there is any point in talking about conditioning factors when no really useful generalizations can be made and when there seem to be more counterexamples than examples to any of the so-called

three principles.

In the chapter on the 'Use of States and Tenses', Driver only mentions the functions of two verbal forms as far as Arabic is concerned. First, he mentions the form /fa9al/ with its two associates, viz. /fa9ul/ and /fa9il/; then he mentions the form /yaf9al/ with its two associates /yaf9ul/ and /yaf9il/ (pp. 112-124). Regarding the function of /fa9al/ and its two variants, Driver says that usually /fa9il/ and /fa9ul/ indicate a state in the past whereas /fa9al/ would indicate an action in the past (pp. 112-113). This distinction, Driver hastens to add "is not indeed invariably maintained (p. 112). As for /yaf9al/ and its variants, Driver mentions that they can be used to indicate pastness, presentness, futurity, or all time, as can be seen from the following sentences which he gives to illustrate such functions: (pp. 120-124).

1. He did not do (lam yaf9al) what they commanded him.

(Past)

2. Man arranges (yudabbiru) and God directs (yuqaddiru).

(All time)

3. What ails thee (that) thou art weeping (tadma9īna)?

(Present)

4. So God shall judge (yahkumu) between them at the day of resurrection

(Future)

Driver, however, mentions nothing about the role of the negative particle /lam/, for example, in the first sentence above in modifying the function of /yaf9al/ and giving it a past reference. Nor does he say anything about the role of the future temporal adverbial /yawma lqiyāma/ 'the day of resurrection' in the fourth sentence. Omitting to pinpoint such clues might cause the researcher to overlook important facts and miss some very useful generalizations. It also usually leads to a disorderly and confused linguistic description.

(iii) Moscatti's 'Comparative Grammar of the Semitic Languages'

In this Introduction to Comparative Grammar of the Semitic Languages, there are many important points of relevance to our subject of tense in Arabic. One such important point that is especially related to Arabic is that in Semitic verbs "the task of lexical individualization (lexical morphemes) is assumed by vowels and by affixes (prefixes, infixes, suffixes) ..."²³ This point is especially relevant here since tense in Arabic is nothing but a grammatical category that is indicated, among other grammatical categories, by the

²³ S. Moscati, A. Spitaler, E. Ullendorff, and W. Von Soden, An Introduction to the Comparative Grammar of the Semitic Languages (Wiesbaden: Otto Harrassowitz, 1964), p.71.

verbal system. Moscati goes on to stress the importance of vowels and affixes by stating that "the linguistic reality of vocalization and affixes, in their morphemic function, is clearly attested by their specific semantic implication (p.71). The study also points out that "the Semitic verb has a set of themes or stems in which formal changes correspond to certain semantic variations and express different aspects of the action connoted by the root" (p.122).

When it comes to analyze tense as such, the study starts by stressing that "the 'tense' system presents one of the most complicated and disputed problems of Semitic linguistics" (p.131). It then adds that it is improper to call the two simple verbal forms in Arabic as 'tenses' because "different temporal concepts converge in each of these two conjugations" (p.131). The study suggests that "it would be more appropriate to speak of 'aspects'" (p.131). The prefixed verbal form, i.e. /yaf9al/, "generally indicates an incomplete action which corresponds, according to circumstances, to ... future, present, or imperfect" (p.131). On the other hand, the suffixed verbal form, viz. /fa9al/, "generally indicates a completed action which corresponds, according to circumstances, to ... past tenses" (p.131). The problem with such an analysis as shown above,

however, is that it cannot explain the full facts of the Arabic tense system. First of all, it ignores a large number of verbal forms with specific temporal references. Secondly, it does not distinguish between ^{systematic} functions and ^{non-systematic} ones. A hundred-per-cent specialization of verbal forms, i.e. for one form to indicate one function only and vice-versa, is hardly found in any human language and its absence is not a peculiarity in Arabic at all.²⁴ It thus seems insufficient in the case of Arabic to oversimplify the issue by discarding any mention of 'tense' and speaking of 'aspect' only.

(iv) O'Leary's 'Comparative Grammar of the Semitic Languages'

This study has some relevant points that need to be examined. O'Leary starts by saying that "the Semitic tenses are two in number" and adds that these "are called 'past' and 'future' ... but have been generally known as 'perfect' and 'imperfect'."²⁵ Semitic tenses, O'Leary explains, are not concerned with time but with action as time is expressed adverbially (p.234). O'Leary, however, makes the perceptive remark

²⁴ William Bull, Time, Tense, and the Verb (Los Angeles: University of California Press, 1968), p.24.

²⁵ De Lacy O'Leary, Comparative Grammar of the Semitic Languages (London: Kegan Paul, Trench, Trubner & Co. Ltd., 1923), p.234.

that this case is "true also of the 'tenses' in the Indo-European languages, where the present describes an enduring act or state, the aorist denotes the action or state simply without reference to duration, and the perfect deals with an action as finished" (p.235).

O'Leary seems to be well-acquainted with the Semitic tense systems when he remarks that "the introduction of a time sense is a later development by means of added particles or by the use of auxiliaries" (p.235). This point has a special reference to Arabic because historically it is believed that Arabic, like other Semitic languages and even like English for this matter, used to have only two simple verbal forms. The tense system of Arabic, however, has evolved greatly since then. Yet, unfortunately, most existing descriptions of Arabic tense seem to be outdated and based on the grammars of Early and Middle Arabic.

(v) Tritton's 'Arabic'

This book, which appeared in the Teach Yourself series, is constructed on traditional lines. In respect to tense, the author reiterates the view that the verb in Arabic "has no tenses, only two forms indicating completed and incompleted action."²⁶ Yet, when dealing with verbal forms other than the two simple ones, Tritton admits, for example, that verbal forms like /sawfa yaf9al/

²⁶ A.S. Tritton, Arabic (London: Teach Yourself Books, 1970), p. vii.

and /sayaf9al/ specifically "refer to the future" (p.59). Tritton also claims that Arabic verbs that follow the pattern /fa9il/ denote present states rather than past actions/states (p.55). Such verbs, he says, must therefore "be translated by the English present" (p.55). Yet on the same page, Tritton translates the verb /labis/, perhaps unconsciously but certainly correctly, by the English past tense 'put on' rather^{than} the present 'puts on' in the following sentence: (p.55)

/labisat l9ajūzu thiyabahā wakharajat min hujratiḥā/
 'The old woman put on her clothes and came out of her room'.

Formally, Tritton again only mentions a small number of the verbal forms available in Arabic. Out of the seven primary verbal forms mentioned earlier, Tritton gives only the following four: (pp.54-59 and p.97).

- | | |
|------------------|----------------|
| (a) /fa9al/ | (b) /yaf9al/ |
| (c) /kāna fa9al/ | (d) /sayaf9al/ |

Of the thirteen secondary verbal forms, he gives two only. These are: (pp.54-59 and p.97)

- | |
|--------------------|
| (a) /kāna yaf9al/ |
| (b) /yakūnu fa9al/ |

In listing the functions of the above six verbal forms, Tritton does not follow any clear plan. He shows no

priority of significance among the functions and lists systematic and non-systematic functions side by side. Moreover, his examples are mostly drawn from ancient classical sources and do not therefore necessarily represent Modern Literary Arabic. In fact, the reason why only a few verbal forms are mentioned by Tritton, Wright and others could be directly attributed to the sort of Arabic they have examined for their analyses. The Arabic tense system, like any other linguistic phenomenon, has certainly developed since the days of the pre-Islamic or early Islamic period from whose Arabic most of the examples appearing in the grammars of the above-mentioned seem to be taken. The requirements of modern life and the new literary movement in the Arab world, as well as the influence of translation from other languages, may all have had their effects in the development and maturity of the Arabic tense system. It is thus grossly erroneous to use Early Classical Arabic as the source of investigation when attempting to carry out any descriptive research of modern Arabic. This very obvious error, however, seems to have been committed by Tritton, Wright, and many other writers on Arabic.

(vi) Thatcher's 'Arabic Grammar'

Thatcher says that "the verb has two main tenses:

the Perfect ... and the Imperfect."²⁷ It is interesting to notice that though Thatcher uses the term 'tense', he still does not use temporal names for it. This is the result of an unfortunate confusion between 'tense' and 'aspect'. In the above quotation also, Thatcher uses the adjective 'main' to describe the two simple verbal forms in Arabic, viz. the simple present and the simple past. The significance of this is that Thatcher, though perhaps indirectly, recognizes the existence of other tenses in Arabic.

As far as verbal forms are concerned, Thatcher's grammar does not seem to go further than the other traditional studies reviewed so far. It mentions the four commonly-recognized primary verbal forms plus two secondary ones. The primary forms mentioned are:

(pp. 67-73)

- | | |
|--------------|------------------|
| (a) /fa9al/ | (b) /kāna fa9al/ |
| (b) /yaf9al/ | (d) /sayaf9al/ |

The two secondary forms are: (p.74)

- | |
|--------------------|
| (a) /kāna yaf9al/ |
| (b) /yakūnu fa9al/ |

No detailed account of functions is given for any of the above six verbal forms.

²⁷ G.W. Thatcher, Arabic Grammar of the Written Language (London: Lund Humphries & Co., Ltd., 1942), p.62.

(vii) Ziadeh and Winder's 'Introduction to Modern Arabic'

Though rather recent, this study is not much different from other traditional analyses of the Arabic tense system. The authors state that "Arabic verbs have only two 'tenses', perfect and imperfect."²⁸ They, however, add in a footnote that it is more precise to call them 'aspects' rather than 'tenses' (p.21). This is because, the authors explain, "in reality these are not tenses, for the distinction between them is not basically that of time. Rather, they indicate whether action is complete or not" (p.21). The authors seem to modify their attitude a little, however, when they add that "it is usually the case that the Arabic perfect is equivalent to the English past and that the Arabic imperfect is equivalent to the English present or future (p.21). If so, one wonders why Arabic verbal forms should be called 'perfect' and 'imperfect' whereas their English 'equivalents' are to be called 'past', 'present' and 'future'.

(viii) Cowan's 'Modern Literary Arabic'

Cowan's analysis of Arabic tense is also in terms of aspect as can be seen from his statement that

²⁸ Farahat J. Ziadeh and R. Bayly Winder, An Introduction to Modern Arabic (Princeton, New Jersey: Princeton University Press, 1964, fifth printing), p.21.

"there are two tenses only, the perfect, denoting an action which at the time indicated was complete and finished, and the imperfect, denoting an action which is or was incomplete at a stated or implied time."²⁹

The writer also mentions that the verb /kāna/ is "the only auxiliary one in Arabic", (p.61) yet he does not mention anything at all on the temporal significance of /kāna/ when compounded with other verbs to form verbal phrases. This is despite Cowan's statements such as "any person of kāna and the same person of the perfect of any other verb may be combined to form the pluperfect of the latter" (p.62), or his later remark that "when a person of the perfect /kāna/ 'he was' is followed by the corresponding person of the imperfect of another verb, the resultant combination equals the past continuous tense of European languages" (p. 87). Elsewhere, he also says that "the imperfect of /kāna/ followed by the perfect of another verb gives the future perfect" (p.89). Such remarks as the above surely indicate that /kāna/ itself must have a temporal function of some sort; yet Cowan does not discuss that at all.

²⁹ David Cowan, An Introduction to Modern Literary Arabic (Cambridge: The University Press, 1968). p.54.

It is interesting to notice that despite the traditional views about the verbs /fa9ul/ and /fa9il/, viz. that they do not possess any temporal value, Cowan seems to believe that such 'perfect' simple verbs have a past-time reference. This attitude of Cowan may be deduced from his translation of the following two sentences:³⁰

1. /mā ḥasuna fi9luhu/

'His action was not good.'

2. /mā sami9ū/

'They did not hear.'

It is also interesting to find Cowan speak of the future reference of Arabic verbs like /sayaf9al/ in spite of his adherence to the theory of aspect (p.88), i.e. that Arabic verbs do not indicate time.

Finally, Cowan's description of the Arabic tense system is on the whole inadequate both formally and temporally. Formally, it only mentions four primary verbal forms and two secondary ones; thus leaving out the majority of Arabic verbal forms unaccounted-for. Temporally, the theory of aspect

³⁰ Cowan, p.56 (underlining is mine)

he adheres to does not seem to be able to present any satisfactory description of Arabic verbal forms and of compound and complex ones in particular.

(ix) Altoma's 'The Problem of Diglossia in Arabic'

In this study which is meant to be a brief comparative grammar of Classical Arabic and Iraqi Arabic, Altoma makes frequent references to the question of tense in Arabic. In his description of tense, he seems to recognise temporality in Arabic verbs without completely discarding the theory of aspect. This happy marriage between tense and aspect can be detected from such remarks as "the perfect generally refers to the past or a finished action but may refer to the future"³¹ and from his other remark that "the imperfect denotes the present or future, and, in certain cases, a finished action" (p.66). What is even more interesting is that Altoma is the first writer reviewed so far to give the status of 'tense' to verbal forms other than the two simple past and present. This is clearly shown when he says that "other tenses are indicated by means of /kān/ ... plus the imperfect or active participle (progressive past),

³¹ Salih J. Altoma, The Problem of Diglossia in Arabic (Cambridge, Mass.: Harvard University Press, 1969), p.66.

or active participle alone (progressive present), or /kān/ plus the perfect (past perfect), or /yakūn/ plus the perfect (future perfect)" (p.66).

It is also worthwhile to notice from the above that Altoma gives a verbal status to participles in Arabic. He makes this point clearer later in his book when he says that "both the active and passive participles perform ... a variety of functions: they may serve as nouns, adjectives or 'tense forms'" (p.73). He goes on to say that as 'tense forms', participles in Arabic "resemble functionally their respective verbs" (p.73). Then he gives the following two sentences for such verbal functions of participles: (p.73)

1. /huwa kātibun darsah/

'He is writing his lesson' or 'He had written his lesson.'

2. /al ghurfatu maksūratun nawāfidhuhā/

'The room's windows are broken.'

The second example above is debatable since the passive participle /maksūratun/ can be correctly replaced by a number of adjectives like /jadīdatun/ 'new', /jamīlatun/ 'beautiful', etc. without changing the structure of the sentence. In the first example, however, only

participles and verbexes can correctly replace the active participle /kātibun/.³²

It is finally important to point out that Altoma has paid due attention to the grammatical and semantic value of vowel patterns within the verbal bases. In this respect he remarks that "the vowel pattern has generally the function of specifying the grammatical role of the stem, past tense of verb, singular or plural of noun, active or passive participle, verbal noun and the like" (p.31). Especially relative to our purpose is the part of the above remark that relates tense to vowel patterns. This is a valuable hint, but unfortunately Altoma does not expand on it any further elsewhere in his study. The few verbal forms that Altoma mentions may have been meant to be representative rather than comprehensive, and the nature of the study as a general comparative grammar may justify this brevity.

(x) Beeston's 'The Arabic Language Today'

Talking about Arabic predicates, Beeston says that they

³² To replace /kātibun/ by an adjective like /ša9bun/ 'difficult', for example, would change the grammatical status of /darsah/ 'his lesson'. It would no longer be an object. Thus the internal relationships of the whole sentence would be changed and the substitution is hence to be regarded as incorrect.

may be expressed either by a verb or by a non-verbal structure; non-verbal predicates are in themselves not time-marked at all and any time relevance they may have is derivable only from the context in which they are placed, or by the addition of a time-marking adverbial; and even the verb has considerably less time significance than the English verb.³³

Thus right from the beginning Beeston seems to attribute some sort of temporal reference to Arabic verbs, although this is not an unmodified temporality. The Arabic verbal predicate, Beeston explains, "appears in two forms, one suffixed and one prefixed," (p.72) i.e. the 'perfect' vs. the 'imperfect' respectively, in aspectual terms, or the 'past' vs. the 'present' in tense terms. Within the stems of either the 'suffixed' or the 'prefixed' verbal forms, Beeston points out that "the vowel pattern distinguishes the prefix set from the suffix set" (p.72). Thus here again another testimony is given for the grammatical significance of vowel patterns in distinguishing between various conjugations of verbs.

Beeston expresses his belief in the aspectual theory when he points out that "very few Arabic verbs embody a wholly unambiguous time signal." More

³³ A.F.L. Beeston, The Arabic Language Today (London: Hutchinson University Library, 1970), p. 67.

important than time is a factor which can be called 'aspectual'" (p.76). The prefixed verbal form, in particular, Beeston believes is "non-time marked, taking its temporal coloration from the context" (p.78). Yet only a little later in his book, Beeston remarks that "the prefix set, with ^{its} 'notional' value is appropriate for statements relating to futurity" (p.79). One wonders what that 'notional' value of futurity is if not temporal. In regard to suffixed verbal forms in Arabic, Beeston states that "the only definitely time-marked verb ... is the suffix set verb in cases where it has dynamic aspect, being then explicitly past" (p.79). Thus, though Beeston does not mention the term 'tense' specifically, he nevertheless seems to believe in a compromise between the aspectual and tense theories as functioning together in the Arabic tense system. Like Altoma before him, however, Beeston does not develop his aspect-tense approach or formulate his underlying principles clearly enough to show the nature of the inter-action between aspect and tense in the Arabic verbal system.

One other noteworthy point made by Beeston is his recognition of the temporality of verbal phrases with /kāna/ in Arabic. In this respect, he says that

"where the time factor is considered relevant to a static predicate, this is marked by the use of a modifying verb with root kwn" (p.80). On the temporal value of kwn, Beeston explains that "its suffix set serves to mark explicitly past time, its prefix set future time or notional value" (p.80).

Beeston does not present any systematic list of verbal forms in Arabic, nor does he work out any inventory of functions. Yet, his theoretical approach and analytical technique seem to be sound on the whole. What seems to be lacking is a deeper insight into the problems involved and a clearer distinction among various factors contributing to the issue at hand.

II. Articles

(i) Thacker's "Compound Tenses Containing The Verb 'Be' in Semitic and Egyptian"

In this article, T.W. Thacker seems to be the first one to stress the significance of verbal phrases as tense forms in Semitic languages as a whole. Traditionallly, Thacker says, verbal forms in Semitic languages are regarded as having no temporal connotations.³⁴ But, he continues, "there is, however, a verb '....which'

³⁴ T.W. Thacker, "Compound Tenses Containing The Verb 'Be' in Semitic and Egyptian," Hebrew and Semitic Studies, ed. T.D. Winton and W.D. Mchardy (Oxford: The Clarendon Press, 1963), p.157.

in one of its employments is treated differently from all others, in that the choice of its perfect or imperfect is mainly dictated not by subjective aspect, but by considerations of time. This verb is the verb 'be'" (p.157). In reference to Arabic, Thacker says that "the perfect of the verb 'be', when it has the function of a copula, normally has reference to past time and its imperfect normally has reference to future time" (p.157). This characteristic of verb 'to be', Thacker adds, "has led to its employment in a number of compound verb-forms ... in order to express various temporal nuances or to define the time-sphere of the verbal action with precision" (p.15). The above remarks of Thacker are specially important since they point to one of the major courses of development in the tense system of Arabic as well as of other Semitic languages.

Thacker proceeds to list the verbal combinations in which a form of /kāna/ 'be' is found in Arabic. He mentions the following verbal forms! (pp.159-162)

- | | |
|-----------------------|---------------------|
| (a) /kāna fa9al/ | (b) /kāna yaf9al/ |
| (c) /yakūnu fa9al | (d) /yakūnu yaf9al/ |
| (e) /sayakūnu yaf9al/ | (f) /kāna fā9il/ |
| (g) /yakūnu fā9il/ | |

Thacker's analysis, thus, mentions more compound verbal

forms than any other study reviewed so far.

Nevertheless, it is still far from being comprehensive.

There are many gaps to be filled yet. One would expect, for example, on the pattern of form (e) above, the following missing forms to be derived from verbal forms (c) and (g) above:

(a) /sayakūnu fa9al/ and (b) /sayakūnu fā9il/

Many other verbal forms are also missing. Still, Thacker's study is a good step in the right direction towards a better description of the Arabic system.

From all the above verbal phrases mentioned by Thacker, he concludes that the function of the verb 'be' in Arabic can only be one of the following two:

(1) "It acts as a time-indicator" by adding "a temporal nuance to the form with which it is compounded" (p.163).

(2) "It turns the compound into a form expressing duration or repetition, the perfect limiting the action to the past and the imperfect limiting it to 'the future'" (p.162).

(ii) Erickson's 'The Establishment of a Verbal Base Form for Arabic'

This article contains many points relevant to a discussion on Arabic tense. The writer, for example, mentions that in Arabic "the verb stem is an intercalation

of two discontinuous elements - a consonantal root, which carries the basic lexical meaning, and a vocalic stem formative."³⁵ The writer then goes on to stress the grammatical value of the vowel pattern within verbal stems and says that "the consonantal root \sqrt{ktb} 'write' for example is ~~intercalated~~ ^{intercalated} with a - a to form the imperfective variant -ktub-."³⁶ Though the writer still holds the traditional view that it is aspect only that distinguishes verbal forms in Arabic and though he confines his discussion to simple verbs only, his emphasis on the role of vowel patterns in verbal stems is significant and noteworthy.

On the quality of vowel patterns in Arabic verbal stems, the writer points out that "the first vowel of the perfective variant is a morphologically predictable cluster-breaker. The second vowel of the perfective (the stem vowel proper) and the stem vowel of the imperfective may be a, i, or u, depending on the root" (p.27). The stem vowel of one verbal form

³⁵ Jon L. Erickson, "The Establishment of a Verbal Base Form for Arabic," Approaches in Linguistic Methodolgy, ed. I. Rauch and C.T. Scott (Madison: The University of Wisconsin Press, 1967), p.27.

³⁶ Ibid; (underlining is mine)

is, however, not reliably predictable from the vowel of the other. Though the writor recognizes this fact of unpredictability, he nevertheless tries to give a traditional 'rule of thumb' that may be of some use to foreign learners of Arabic. The rule says that

if the perfective stem vowel is u, the imperfective is also u; if i, then a. If the perfective is a, however, the imperfective may be a, i, or u: u is the most common; i generally occurs if C₂ or C₃ is i or r; a generally occurs if C₂ or C₃ is a glottal or pharyngeal" (p.31).

The above 'rule' does not provide the learner with more than broad guiding principles for guessing and a researcher is thus bound to conclude that the distribution of stem vowels in Arabic verbs is lexically conditioned.

(iii) Shehādi's 'Arabic and To Be'

In this article, the importance of /kāna/ as a time-indicator in Arabic is emphasized. Shehādi mentions various uses of the form /kāna/ in Arabic. Altogether he lists five functions of /kāna/.³⁷ What concerns us here are the following two functions (p.35).

³⁷Fadlou Shehādi, "Arabic and 'to Be'", The Verb 'Be' and its Synonyms, ed. J.W.M. Verhaar (Netherlands: D. Reidel Co., Part 4, Vol. 9, 1969), p.118.

1. "It can be used to introduce tense to a nominative sentence ..."
2. "It can be used as an auxiliary verb to help to make tense more specific."

The two above functions can be illustrated in the following two sentences:

1. /kāna ʔabī ʔawīlan/

'My father was tall.'

2. /kāna lwalad qad katab wājibah/

'The boy had already written his homework.'

In the first sentence above, /kāna/ has changed the nominal sentence /ʔabī ʔawīlan/ *'My father tall' into a verbal one; /kāna/ may thus be said to function as a verbalizer in such situations. Temporally, it has made the nominal sentence refer to the past. In the second sentence above, /kāna/ functions as an auxiliary to the verb /katab/. It helps to specify its basic temporal value even further. It shifts the past-time reference of the verb /katab/ further to the past and thus makes it refer to an earlier-past, or 'past perfect'.

(iv) Hughes' 'Hebrew Tenses'

Hughes' article on Hebrew tenses has some relevance to Arabic tenses because of the close kinship

between Arabic and Hebrew. The similarity between the majority of existing analyses of Hebrew and Arabic tenses can be clearly seen from the following quotation:

"The prevalent theory of the Hebrew tenses ... is that the Perfect denotes completed action and the Imperfect uncompleted action. This is the so-called aspect theory. So according to this theory it is aspect ... which determines the use of the two tenses." ³⁸ Hughes, however, expresses his dissatisfaction with the inadequacy of the aspect - theory when he says that "after an exhaustive survey of the uses of the simple Imperfect and the Perfect ... [he has] reached conclusions which are opposed to the aspect theory" (p.12). All this leads Hughes to believe that "a difference in aspect is not the determinative factor in the use of two tenses" (p.12). This conclusion is not dissimilar to that reached by the present writer after his analysis of the Arabic tense system.

The historical development of Hebrew tenses, as seen by Hughes, is also relevant to that of Arabic. In this respect, Hughes points out that "probably originally both tenses were unrestricted with respect

✓ ³⁸ J.A. Hughes, "Another Look at the Hebrew Tenses," Journal of Near Eastern Studies, vol. 29, No. 1 (January, 1970), p.12.

to time, i.e., they were timeless or omnitemporal predicative elements" (p.13). In the course of the development of Hebrew, and this may also be true of Arabic, "true tenses representing a later stratum in the development of the language [have evolved]" (p.13). Hughes also points to the significance of 'certain particles used with the verb' in modifying the tense system in Hebrew (p.13). This situation is comparable to the use of similar particles in Arabic.

The necessity for sorting out systematic versus non-systematic functions for different verbal forms that has already been suggested for Arabic by the present writer on page 416, is also felt by Hughes for Hebrew, though expressed in somewhat different terms. In this respect, Hughes says that³⁹

an Imperfect form occurs in past time not because it denotes the incompleteness or continuance of an action (as the aspectual theorists would have us believe) but is due to the kind of construction in which it is employed: It seems reasonable to assume that such a construction became stereotyped somewhere along the line in the historical development of the language and thus resisted change (p.14).

³⁹It is important to remember that Hughes is talking about simple verbs only.

Similarly, the indication of the simple verb /yaf9al/ of a past time in Arabic after some negative particles such as /lam/ is not to be taken as a typical function of this verbal form but rather to be explained as a historical residue, or a non-systematic function.

The same applies to situations where /fa9al/ is used to indicate present or future time as in some asseverative statements and after conditional particles.⁴⁰

⁴⁰ See pp. 541 - 544

CHAPTER THREE

THE ARABIC TENSE SYSTEM

(A) Introduction

It has already been concluded in Chapter two that the following seven verbal forms are the primary ones in the Arabic tense system and that the question of investigating Arabic tense becomes largely one of accounting for and describing them:

1. /yaf9al/
2. /fa9al/
3. /kāna fa9al/
4. /sayaf9al/
5. /kāna sayaf9al/
6. /sayakūnu fa9al/
7. /kāna sayakūnu fa9al/

The above seven ^{forms} ~~tenses~~ are here referred to as PRIMARY as it is supposed that each of them indicates a unique temporal location on the time chart. It has already been pointed out on page 42 of the present study that the temporal line could be logically segmented into the three temporal fields of past, present, and future, with the possibility of referring to a time that is earlier or later than the centre of each of these three fields.

The temporal line, could thus be seen to consist of the following NINE temporal locations, as has been shown in Diagram 1 on page 42 :

1. PAST
2. before PAST
3. after PAST
4. PRESENT
5. before PRESENT
6. after PRESENT
7. FUTURE
8. before FUTURE
9. after FUTURE

It has also been pointed out that there is rarely a human language that has a one-hundred-per-cent logical tense system. A perfectly logical tense system would have nine primary verbal forms and a one-to-one correspondence between these nine verbal forms and the nine temporal locations already mentioned.

Arabic is no exception in lacking a completely logical tense system. It only has SEVEN primary verbal forms to indicate nine temporal locations. How does Arabic manage to do that? There are two possible alternative answers to the above question. Arabic is either unable to indicate two or more of the nine

temporal locations or it uses one or more of its seven primary verbal forms to refer to more than one temporal location or field.

The first alternative above, viz. that Arabic is unable to refer to at least two out of the nine temporal points, has been excluded by an experiment which was carried out on a number of Arab students by the present writer. The subjects were presented with a number of sentences, each of which contained a verb in parentheses. They were then asked to correct each of the verbs in light of a temporal adverbial which appeared in each of the sentences. These temporal adverbials were carefully selected to represent all the nine temporal divisions and relations.¹

The following is a list of the nine temporal divisions and the nine temporal adverbials used in the experiment to depict them and in the light of which the students were asked to correct the verbs they were presented with:

1. A Past Point of Time: /fi 19āmi lmāḍi/ 'last year'
2. Before a Point in the Past: /qabla wuṣūli ?ila
ddār bil?ams/ 'before
my arrival at the
house yesterday'

¹ See pp.397 - 402 for the format of this experimental test.

3. After a Point in the Past: /9indamā taraktuhu
bīlʔams ... ba9da
qalīl/ 'a little
while after I left
him yesterday'
4. The Present Moment: /lʔān / 'now'
5. Before the Present Moment: /qabla lʔān/ 'before now'
6. After the Present Moment: /ba9da lʔān/ 'after now'
7. A Future Point: /ghadan/ 'tomorrow'
8. Before a Future Point: /qabla ssā9a lkhāmisa
ghadan/ 'before five
o'clock tomorrow'
9. After A Future Point: /ba9da nihāyati lʔimtiḥān
ghadan/ 'after the end
of the exam tomorrow'

The results of the above experiment, backed by those of Test One, all point out to the conclusion that Arabic is capable of indicating all the nine temporal divisions linguistically. These linguistic-temporal interrelationships are complex, however, and far from being on a one-to-one basis.²

We are thus only left with the second alternative

² These interrelationships are fully discussed in Chapter Six on the Functions of Arabic Tenseemes.

to the question posed on page 458, viz. that Arabic uses one or more of its primary verbal forms to indicate more than one temporal division. This means that some Arabic primary verbal forms are not strictly specialized in their temporal reference. Conversely, this also means that two or more of the nine notional temporal divisions are not indicated in the Arabic tense system by unique verbal forms. To find out which temporal divisions are not uniquely represented by Arabic verbs is the object of the following discussion.

(B) Time in the Arabic Tense System

1. Ternary Analysis

Logicians and philosophers usually divide time up into the three temporal fields of past, present, and future, as has just been said above. Any action has to take place in time and can alternatively occur at one of three temporal locations: at the centre of any of the three time fields, before the centre, or after the centre. This ternary analysis of temporal fields and temporal relations has been imposed on the description of the tense systems of many languages both by logicians and by grammarians regardless of the fact that languages are rarely structured according to the canons of logic.

The three main temporal fields, nevertheless, seem to be all formally represented in the Arabic verbal system.

A verbal form like /fa9al/ clearly refers to a past time whereas /yaf9al/ and /sayaf9al/ refer to the present and the future respectively. It may thus seem justifiable to speak of three tenses in Arabic, viz. the past, the present, and the future tenses. A step further in this ternary description, however, would reveal that this is in fact an untenable proposition.

It has just been mentioned that on a lower level, each of the three temporal fields is in turn divisible into three temporal locations, viz. the centre, earlier than the centre, and later than the centre. These subdivisions presuppose the presence of nine different primary verbal forms in a perfectly logical tense system. Arabic, as has just been shown, only has seven such verbal forms to indicate the nine temporal locations. If we tried to distribute the seven primary Arabic verbal forms on the hypothetical temporal line according to the ternary logical analysis, we would end up with the distribution that is shown in Diagram 18 below:

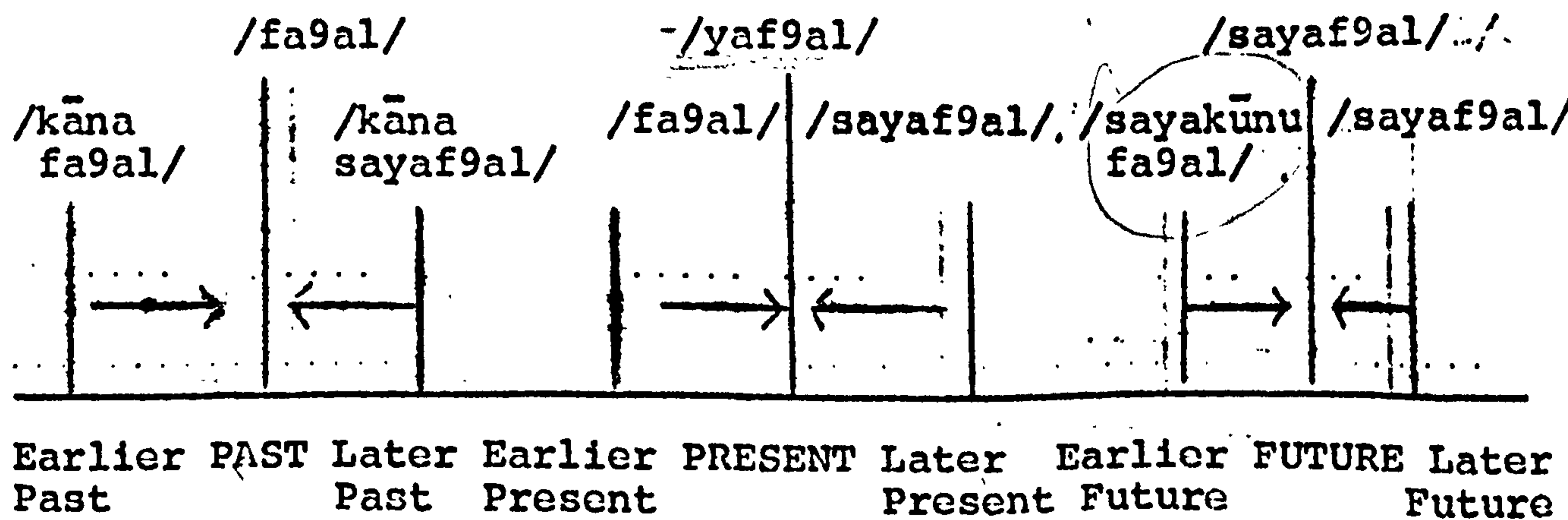


Diagram 18

A cursory look at Diagram 18 above reveals many major drawbacks in the application of a ternary analysis to the description of the Arabic tense system. The first, and perhaps the main, criticism is that there would be a great deal of formal redundancy in the description. The verb /fa9al/ would appear as indicating both past and earlier-present, whereas /sayaf9al/ would appear in three different places in the above diagram, viz. at later-present, future, and later-future. Moreover, a temporal field like the future would have only one unique verbal form, i.e. /sayakūnu fa9al/; all its other forms would be shared by other temporal locations. Hence, is it justifiable to say that Arabic has a future tense? This question becomes even more relevant when it is realized that even /sayakūnu fa9al/, which is the only characteristic form of the 'future tense', is of rare occurrence in Arabic, as can be seen from Table 48 on page 403, and therefore cannot be put on equal footing with the other much more frequent verbal forms that appear in Diagram 18. On the other hand, is it justifiable to say that Arabic distinguishes between earlier-present and past when formally they are indicated by indistinguishable verbs, viz. the verbal form /fa9al/ ? The ternary

description, as shown in Diagram 18, has one more serious shortcoming; viz. that it only accounts for six of the seven Arabic primary verbal forms given on page 408. The verbal phrase /kāna sayakūnu fa9al/ does not appear in the Diagram.

It can thus be concluded that a ternary analysis of the Arabic tense system is both incomplete and unsatisfactory. It is incomplete as it does not account for all the linguistic facts of Arabic tense and leaves a primary verbal form unlocated on the temporal chart. It is unsatisfactory since it has a lot of redundancy and is needlessly complex. It is therefore decided to discard such an analysis in favour of a simpler and a more efficient alternative one.

2. Binary Analysis

Languages, as has been said, differ in their segmentation of time and hence have different tense systems. It will be contended here that Arabic, for example, marks all verbs that refer to past actions by a special past-tense marker. It is hypothesized in this study that Arabic uses discontinuous vowel morphemes within the various verbal stems to indicate the different tenses of verbs formally. Thus, in a verb like /KaTaB/ 'wrote', the past-tense marker is the discontinuous vowel pattern /a - a/. The past-tense

marker, however, is not of one form; it can be /a - i/ as in /SaMi9/ 'heard', or /a - u/ as in /KaBuR/ 'grew up'. It is possible, therefore, to speak of various allomorphs which all share the semantic significance of pastness. It is customary in English linguistics to symbolize the past-tense morpheme as {D₁} and as symbols are nothing but useful conventions, the same symbol will be used in the present study to refer to the past-tense morpheme in Arabic.

Verbs denoting actions that did not take place in the past are marked in Arabic by a different set of discontinuous vowel patterns. A past verb like /KaTaB/ will take the form of /(ya-)KTuB/ when not referring to the past. The verbs /SaMi9/ and /KaBuR/ will change to /(ya-)SMa9/ and /(ya-)KBuR/ when used to indicate non-pastness. It is important to point out that the three underlined non-past verbal stems just mentioned above are used to indicate both presentness and futurity without any formal change within the verbal stem as such. To indicate futurity specifically, Arabic can make use of certain pre-base particles like /sa-/ or /sawfa/ or resort to temporal adverbials with inherent futurity such as /ghadan/ 'tomorrow'. In both cases, however, the tense morpheme used with these future markers is the same as that used without them. As far as

verbal stems, and verbal bases also, are concerned, it may thus be said that Arabic does not formally distinguish between tense markers that indicate futurity and those that indicate presentness. It is justifiable, therefore, to cluster both presentness and futurity into one temporal area in the Arabic tense system since both are formally indicated by the same tense-marker. This composite temporal area is called the non-past hereafter and the tense-marker that is formally used to indicate it is called the non-past tense morpheme.

Like the past-tense morpheme, the non-past morpheme consists of various allomorphs which all share the temporal quality of non-pastness. A non-past trilateral verbal stem has one vowel each, e.g. /(ya-)KTuB/ 'writes'. Yet, for the sake of consistency with past verbal stems and because quadrilateral verbs like /(yu-)TaRJîM/ 'translates' have two vowels each, a zero vowel is hypothesized between the initial two radical consonants of trilateral verbs. Thus the non-past allomorph in /-KTuB/ is / \emptyset - u/; in /-SMa9/ is / \emptyset - a/; and in /-ḤSîB/ is / \emptyset - i/. The symbol {P₁} is here proposed as a cover-symbol for all the non-past allomorphs and it hereafter stands for the non-past tense morpheme.

Since there are no other tense vowel morphemes in Arabic other than the two just mentioned above, it is concluded that Arabic has two tenses only. These two tenses are the past tense and the non-past (present) tense which are formally indicated by a variant of {D₁} or {P₁} respectively. The temporal vowel patterns from which the above conclusion is drawn could be briefly summarized in the following table:

TABLE 49
VOCALIC CONTRASTS BETWEEN PAST AND
NON-PAST VERBAL FORMS

Type of Root	Vocalic Pattern of Past	Examples	Vocalic Pattern of Non-past	Examples
1. Tri-Consonantal	1. /a-a/	a. /fatah/ '(he) opened'	a. /ø-a/	a. /ya-ftah/ '(he) opens'
		b. /darab/ '(he) hit'	b. /ø-i/	b. /ya-drib/ '(he) hits'
		c. /katab/ '(he) wrote'	c. /ø-u/	c. /ya-ktub/ '(he) writes'
	2. /a-i/	/sami9/ '(he) heard'	/ø-a/	/ya-sma9/ '(he) hears'
	3. /a-u/	/karum/ '(he) was noble'	/ø-u/	/ya-krum/ '(he) is noble'
11. Quadri-Consonantal	1. /a-a/	/tarjam/ '(he) translated'	/a-i/	/yu-tarjim/ '(he) translates'

The above analysis of Arabic tense is based upon the vocalic contrast between the past versus the non-past verbexes. Such an analysis could be justified by the observation that the only major formal difference between the contrastive past vs. the non-past verbal forms lies in the different vowel patterns of the verbal stems. Other differences are both minor and predictable.

(C) The 'Tense' and the 'Tenseme' in Arabic

Every verbal form that carries the formal marker of a given tense is regarded here as an instance of that tense. The present-tense marker which is formally represented by the vowel discontinuous morpheme {P₁}, for example, appears in /yaf9al/ as well as in /sayaf9al/. It also appears in the first components of verbal phrases like /sayakūnu fa9al/ and /sayakūnu yaf9al/. Which of these verbal forms is the true representative of the present tense in Arabic? The answer is that each of them represents one possible variety of the present tense and hence all of them are equally 'present'. The same conclusion is true about verbal variants that are formally indicated by the past-tense marker {D₁}, e.g. /fa9al/, /kāna fa9al/, /kāna yaf9al/ and /kāna sayaf9al/.³

³The form /kāna/ is the past-tense simple form of the root {KWN}.. The simple-present form is /yakūn/. For the above use of /kāna/ as an auxiliary verb, see p.571

Each of the verbal variants in either tense in Arabic is called a tenseme hereafter. A tenseme is said to belong to either tense when it formally carries the marker of that tense. Conversely, each tense is considered here as a temporal field which is consistently represented by a given formal marker that is consistently found in all the tenseemes of that tense. Tense could also be defined, in somewhat different words, as a class of tenseemes that are temporally similar and appear in complementary distribution. Temporal similarity among the tenseemes of any tense is basically seen in their orientation to a common focal centre or point of reference. The point of reference is the present moment, or the moment of utterance, for all present, or non-past, tenseemes whereas it is a past point of time for all past tenseemes. Formally, this common point of orientation is realized in the common tense marker that the tenseemes of either tense carry, viz. $\{P_1\}$ for non-past tenseemes and $\{D_1\}$ for past tenseemes.

(D) Aspect and Aspectual Markers

By the 'complementary distribution' of tenseemes, which has just been mentioned above, is meant that the tenseemes of a given tense indicate various temporal locations within the temporal field covered by the marker

of that tense and in relation to a point of reference which falls at the centre of that temporal field.

If the whole temporal field of a given tense is formally indicated by a common tense marker that all the tenseemes of that tense must manifest, different temporal locations within that temporal field must therefore be formally marked by a different set of markers. It is held here that aspectual markers are used in Arabic to indicate various temporal locations in relation to a given point of orientation and within a given temporal field.

Initially, there can be two contrastive varieties of aspect in Arabic: earlier aspect versus non-earlier aspect (symbolized hereafter as {D₂} and {P₂}, respectively.)⁴ It is the presence or absence of a pronominal prefix before the stems of verbs that determines which variety of aspect is signalled. A pronominal prefix indicates non-earlier aspect whereas

⁴ The symbol {D₂} rather than {Ø₂} is chosen for earlier aspect since the former symbol would show the close temporal relationship of earlier aspect with {D₁}, viz. the past-tense marker. Temporally, earlier aspect and past tense have a lot in common.

its absence signals earlier aspect.⁵ Though formally the non-earlier variety of aspect is the marked member of the contrastive aspectual pair, it is temporally the unmarked member. This is because the temporal scope of non-earlier aspect can sometimes include that of earlier aspect as well, as will be explained later. Moreover, the non-earlier aspect, like most unmarked members of other linguistic contrastive pairs, is further analyzable into two more specified aspects: that of posteriority and that of simultaneity (symbolically represented here by {P₂+} and {P₂∅}, respectively). Posteriority is indicated by the pre-^{base}stem affix /sa-/, or by the pre-base form /sawfa/, plus a pro-nominal prefix whereas the simultaneity aspect is formally indicated by special vowel patterns, as well as by the prefix /mu-/ in certain cases, and is found in both the active and passive participle forms of verbs in Arabic.⁶

⁵It is contended here that the prefix is the decisive factor in aspect rather than both prefixes and suffixes, as is traditionally maintained (see Review of Literature in Chapter Two). This is because prefixed verbs, i.e. present-tense verbs, do have suffixes as well. Moreover, the suffixes of both the past and present forms of some Arabic verbs are formally identical, as in the case of verbs like /katabna/ 'they (fem.) wrote' and /yaktubna/ 'they (fem.) write', for example.

⁶ See definitions of 'participles' in Part One.

Tense and aspect are closely intertwined in the Arabic verbal system. Tense markers and aspectual markers coexist in the majority of verbs. Yet, it is hypothesized here that a verb can only be significantly marked for either tense or aspect at any one time, though formally it may be marked for both. In other words, when both tense and aspectual markers are found in a given verbal base at the same time, only one marker is temporally significant whereas the other is to be considered as an empty marker added to the verbal base by the requirements of the surface structure of Arabic verbal forms.⁷ A verbal base like /yaf9al/ in the verbal phrase /kāna yaf9al/ '(he) was doing', for example, is simultaneously marked by the prefix /ya-/ for non-earlier aspect and by the vowel morpheme {P₁} for non-past tense. According to what has just been said, only one marker of the two is temporally significant here.

The above phenomenon of the formal coexistence of tense and aspect markers in Arabic verbexes⁸ could alternatively be dealt with in any of the following other three ways:

1. To hypothesize that coexisting markers of both
-

⁷ See Chapter Five on Transformations in Arabic.

⁸ Verbids, by definition, do not have tense markers.

- ... tense and aspect have temporal significance simultaneously in any Arabic verbex.
2. To hypothesize that Arabic verbs are only marked for aspect.
 3. To hypothesize that Arabic verbs are only marked for tense.

The first alternative above, if adopted, will produce unacceptable temporal descriptions of most Arabic tenseemes. The tenseeme /katab/ '(he) wrote', for example, is simultaneously marked both by the past-tense marker {D₁} and by the earlier aspectual marker {D₂}. To hypothesize that both the above coexisting formal markers are simultaneously significant, as in the first alternative above, would give the following temporal reading for /katab/:

earlier aspect + past tense.

The above formula is erroneous, however, since it distorts the temporal description of /katab/ which does not indicate 'earlier pastness', i.e. an action earlier to a past point of reference, as the above formula would suggest. Rather, /katab/ indicates pastness only, i.e. an action that took place at a past point of reference. Adopting the hypothesis of the simultaneous significance of coexisting temporal markers would yield in similar unrealistic temporal

analyses for most other Arabic verbs. It is thus rejected in favour of a more efficient hypothesis.

The second alternative on page 473 is also rejected since an aspectual theory cannot on its own satisfactorily explain the intricate and complex system of Arabic tense. Nor will such a theory be able to account for any detailed description of the various functions of tenseemes, as will be presented later in this study. Besides, the action indicated by a phrasal tenseme like /sayakūnu sāfar/ '(he) will have travelled', for example, would have both 'earlier' and 'later' aspects at the same time, according to this hypothesis. If no point of reference is indicated as a result of the absence of tense markers, which this hypothesis maintains, then it is certainly ambiguous how and in relation to what any one action could be both 'earlier' and 'later' at the same time. If however, the point of reference is to be assumed as the present point of speech, then it would mean that the action indicated by the above tenseme has simultaneously both taken place before and after that assumed point of reference, i.e. both in the past and in the future at the same time. This undoubtedly is an untenable temporal analysis both for the above-mentioned tenseme and also for other phrasal tenseemes

in Arabic. On these grounds, the second alternative mentioned above has been considered unsatisfactory and therefore rejected.

We are thus left only with the third alternative stated on page 473 above. This hypothesis, however, has also been rejected as its adoption would have produced a lot of contradictions and difficulties. A major drawback in such a unilateral tense hypothesis would be its analysis of verbal phrases. According to such a hypothesis, the compound tense */kāna yaktub/* '(he) was reading', for example, would have two formally-marked points of reference. Its first component, viz. */kāna/*, would be marked for past tense while its second component would be marked for the present tense. Thus a single unitary action would be simultaneously orientated to two formally - and temporally - different points of reference. Obviously, there must be something wrong with such an analysis since no one action can fall into two different temporal fields at any one time. Nothing short of chaos would result in any given tense system if it allowed such formal and temporal contradictions ⁱⁿ /its tenseemes. The case of */kāna yaktub/*, just mentioned above, would be typical of */yakūnu katab/*, */kāna sayakūnu yaktub/*, and many other similar Arabic phrasal tenseemes. Besides, what

would be the status of participles in such a purely tense theory? Participles are not marked by the tense vowel morphemes. A theory that proposes to interpret and analyze the Arabic tense system on purely tense bases would thus obviously run into many uncalled-for problems and fall into the traps of contradiction.

All the three alternatives to the description of temporal markers in the Arabic tense system mentioned on page 473 have therefore been rejected in the present study. The only satisfactory analysis is thought to be the hypothesis of mutual exclusiveness outlined on page 472 and expanded below. The above-mentioned hypothesis has thus been adopted for the analytical approach in the present study.

To develop the notion of mutual exclusiveness mentioned above, it is further hypothesized here that tense markers are always temporally significant in simple verbs and that a tense marker is always significant initially in verbal phrases. Hence, a second or a third component in a verbal phrase is always only aspectually significant, and its tense marker is therefore insignificant. Thus in the verbal phrase /kāna yaf9al/, for example, the verb /yaf9al/ is only aspectually significant since it is

not in initial position in the verbal phrase; whereas the verb /kāna/ is aspectually non-significant since it is initial, but is significantly marked for past tense. The verbal phrase /kāna yaf9al/ can therefore be temporally analyzed as composed of:

past tense + non-earlier aspect

Past tense is indicated by {D₁} which is represented by the allomorph /a - a/ in /kāna/ whereas non-earlier aspect is indicated by {P₂} which is formally represented by the presence of the pronominal prefix /ya-/ in /yaf9al/. It is thus concluded in the present study that the best analytical approach to the description of temporality in the Arabic verbal system is one that is based on a joint tense-aspect hypothesis. Temporally, tense markers and aspect markers do not coexist in any single verb in Arabic, though formally they do so in verbexes. The two varieties of tense and aspect markers can thus be said to be temporally mutually exclusive, viz. whenever one of them is temporally significant, the other is not.⁹

⁹ Both tense and aspectual markers could, however, be simultaneously significant in a single verb form in all Arabic when the aspectual marker falls outside the verbal base. This is the case with the Arabic verbex /sayaf9al/ '(he) will do' which is temporally composed of: non-past tense + later aspect. This special case will be fully explained later.

(E) Different Kinds of Tenseemes In Arabic

The presence or absence of aspectual markers as well as their number in verbal phrases results in a variety of tenseemes in Arabic. These may be as follows:

1. The Simple Tenseemes

Any verb can only have two simple tenseemes in Arabic: the simple-past form and the simple-present form, e.g. /katab/ '(he) wrote' vs. /yaktub/ '(he) writes', respectively. With a small minority of verbs in Arabic, the distinction between the past-tense marker and the non-past tense marker is formally neutralized in their simple tenseemes. Thus both /takallam/ '(he) spoke' and /ya-takallam/ '(he) speaks' are formally marked by the same vowel pattern. In such cases, however, temporal ambiguity is avoided in Arabic by drawing the distinction of past vs. non-past on formal criteria other than that of tense marker.¹⁰ It is predictable, for example, that the non-past tense marker selects a prefix for the aspectual empty marker of its surface structure. Knowing that, it becomes

¹⁰ This linguistic situation is similar to that of English verbs like put, cut, and beat, for example, whose past vs. present verbal forms are also indistinguishable on the basis of tense markers, as such.

easy to recognise /yatakallam/ as a simple-present (non-past) tense and /takallam/ as a simple-past tense since the former is formally marked by the presence of the aspectual prefix /ya-/ whereas the latter by the absence of the aspectual prefix.¹¹

Such tenseemes as /fa9al/ and /yaf9al/ are called simple here as they have no significant temporal markers other than the tense markers which form the stem when combined with the radicals of the root of such verbs.¹² Thus the root, which has a formal entity of its own,¹³ is temporally modified by one of the tense markers only. In all other types of tenseemes, however, one or more aspectual markers are used to modify the root besides the tense marker.

¹¹ This predictability of the absence or presence of the aspectual prefix in Arabic verbexes makes aspectual markers temporally insignificant in verbexes. Aspectual markers, however, are unpredictable in Arabic verbids since any variety of verbid could be selected after the initial verbexes, e.g. /kāna yanām/ '(he) was sleep(ing)', /kāna nāma/ '(he) had slept', /kāna nāʔim/ '(he) was sleeping', etc... Consequently, aspectual markers are temporally significant in Arabic verbids.

¹² For root, stem, and radicals, see Definitions in Part One.

¹³ On the formal entity of verbal roots in Arabic and other Semitic languages, see J.H. Greenberg, "The Patterning of Root Morphemes in Semitic," Word 6 (1950).

2. The Compound Tenseemes

Compound tenseemes have one aspectual marker each added to the tense marker, for example:

a. /kāna katab/ = {D₁} + {D₂}

' (he) had written'

b. /sayaktub/ = {P₁} + {P₂+}

' (he) will write'

c. /kāna nāʔim/ = {D₁} + {P₂∅}

' (he) was sleeping'

3. The Complex Tenseemes

A complex tenseme is a verbal phrase that has two aspectual markers in addition to the basic tense marker. Complex tenseemes may be represented by the following verbal phrases in Arabic :

a. /kāna sayakūnu nāʔim/ = {D₁} + {P₂+} + {P₂∅}

' (He) would have (been) sleeping'

b. /sayakūnu sāfar/ = {P₁} + {P₂+} + {D₂}

' (He) will have travelled'

c. /kāna sayakūnu yaktub/ = {D₁} + {P₂+} + {P₂}

' (He) would have (been) writ(ing)'

(F) Binary Oppositions in the Arabic Tense System

1. Tense Binariness

The binary analytical approach has been successfully used in the description of various linguistic aspects

in many languages.¹⁴ The Arabic tense system also seems to lend itself to this kind of analysis. Both tense and aspect markers seem to be best analyzable in Arabic in terms of a set of binary oppositions. The heart of the binary approach is that the distribution of any linguistic feature could be analyzed in terms of two members of a contrastive pair in which one member is 'marked' by the presence of that feature while the other is 'unmarked'.¹⁵ The unmarked member in a contrastive pair does not necessarily indicate the absence of that feature; it may just say nothing about it (Vachek, pp.84-85).

The two tenses in Arabic are members of such a contrastive pair in which temporality is the point of contrast. From the two tenses, the past tense is the marked one, i.e. the one that is specially marked for possessing the temporal feature of 'pastness'. As the unmarked member of the pair, the non-past tense may either specifically indicate that it is lacking in the temporal feature of contrast i.e. of pastness, or it may say nothing about 'pastness' as such. In other words, the non-past tense in Arabic may either specifically refer to the present or future or both, i.e. anytime except the

¹⁴ R.L. Allen, The Verb System of Present-Day American English (The Hague: Mouton & Co., 1966), pp.88-94.

¹⁵ J. Vachek, The Linguistic School of Prague (Bloomington: Indiana University Press, 1966), pp. 84-85.

past, or it may refer to all time, including the past. The second alternative above, however, is usually the characteristic feature of unmarked members in morphological and syntactical binary contrasts (Vachek, p.84). Thus Arabic uses the non-past simple tenseemes /tushriq/ 'shines', /taqa9/ 'is situated', and /yuh_hibb/ 'likes' to indicate temporal fields that extend over the past, present, and the future in the following sentences:

1. /ʔashshamsu tushriq ʔathnāʔa nnahār/

'The sun shines during the day.'

2. /baghdād taqa9 9alā dijla/

'Baghdad is situated on the Tigris'.

3. /ʔakhi yuh_hibbu lqirāʔa/

'My brother likes reading.'

That the non-past tense can be specifically used to indicate only present or future or both may be seen in the following sentences in Arabic:

1. /huwa yusāfir ghadan/

'He travels tomorrow'.

2. /hiya taktub risāla lʔān fi ghurfatihā/

'She (is) writ(ing) a letter in her room now'.

The non-pastness of the simple-present tenseemes /yusāfir/ and /taktub/ in the two sentences above makes these verbs compatible with temporal adverbs that are

inherently future or present in their temporal reference like /ghadan/ and /l?ān/, respectively. This becomes even clearer from the ungrammaticality of sentences such as the following:

1. */huwa yusāfir bil?ams/
 *'He travels yesterday.'
2. */hiya taktub risāla qabla qalīl/
 *'She (is) writ(ing) a letter a while ago.'

where the ungrammaticality results from the incompatibility of the non-past tenseemes with specifically past temporal adverbials.

It is important to notice that contrastive pairs within the Arabic tense system ~~always~~ contain members that are both formally marked, i.e. each member in a contrastive pair has a characteristic formal marker. In the case of tenses, for example, the past tense is formally marked by its distinctive vowel morpheme {D₁} and so is the non-past tense marked by {P₁}. The distinction of 'marked' versus 'unmarked' is therefore to be clearly understood as semantic or, more specifically, as temporal. The past tense, as has just been mentioned, is to be regarded as 'marked' since it temporally refers only to a past temporal field; whereas the non-past tense is 'unmarked' as it refers to all the rest of time and usually even

includes the past tense field within its span and thus may even represent 'all time'.¹⁶

It has already been said that every temporal field has a focal pivot towards which all actions/states that take place within that field are oriented. This focal pivot or centre is therefore called 'the point of orientation' or 'the point of reference'.¹⁷ In the case of the non-past tense in Arabic, the point of reference is the moment of utterance which always falls at the present moment. Simultaneous present is thus the centre of the non-past tense. The fundamental function of verbs with {P₁} is consequently expected to be to indicate actions that are specifically taking place at simultaneous present. Yet, it can be easily observed that this use of verbs with the non-past tense-marker {P₁} is far from being common in Arabic. In fact, analyses of various languages have shown that the case of Arabic is typical of many other languages (Bull, p.69). One may speculate that because the present moment is the common focus of all speakers and the point of time at which all are living, it is often felt unnecessary that it should be marked linguistically

¹⁶ See Diagram 13 on page 102 for a representation of this inclusiveness of the non-past tense.

¹⁷ These terms are also used by R.L. Allen, op. cit.

in many languages, and is thus either expressed with unmarked verbs or left out altogether to the unambiguity of the context.. Arabic can thus refer to actions or states at simultaneous present without the use of any present-tense marker or even without the use of any verb at all, e.g.:

1. /huwa fi-lḥadīqa/
'(he in the garden)
'He is in the garden'
2. /ʔalʔarḍu kuraʔiyya/
(the earth round)
'The earth is round'

The original function of non-past tense, i.e. referring to simultaneous present, is however still found in various linguistic situations. A sports commentator, for example, would use it when reporting a football match over the radio to describe to his listeners actions that he is watching.. Simultaneous present is also often indicated by non-past simple tenseemes with the help of certain temporal adverbials of simultaneity, e.g.:

- /hum yaʔabūna lʔān/
'They (are) play(ing) now.'

The latter use of adverbials of simultaneity with the present-simple tenseemes to denote simultaneous

present is especially found with a group of verbs, such as /yaqra?/ 'reads', /yaktub/ 'writes', etc., whose present participles, which are normally the forms that indicate simultaneity, are mainly used nominally or adjectivally, but not verbally, in Arabic.¹⁸

2. Aspect Binarity

(A) Non-earlier Aspect

Aspectual markers, as has already been said, are used to specify various temporal locations within the scope of the temporal field covered by either tense. The aspectual marker {P₂} which is formally realized by a prefix before the verbal stem indicates non-earlierness in relation to a given point of reference. The point of reference, it is to be remembered, is the present moment in the case of the non-past tense and a past point of time in the case of the past tense. A verb like /yaktub/ 'writes', for example, is formally marked by the non-past tense marker {P₁} in the form of the allomorph /Ø-u/. In order to refer to a temporal location non-earlier than the present point referred to by {P₁} in /yaktub/, the non-earlier aspectual marker {P₂} is added to the verbal stem /-ktub/. This will give:

/-ktub/ + aspectual prefix.

A verbal base in Arabic, it has already been said,

¹⁸ This point will be elaborated later.

cannot be significantly marked for both aspect and tense simultaneously. Thus the aspectual marker will occupy the verbal base leaving its tense marker {P₁} 'floating', i.e. not carried by any verbal root. This will leave the verbal stem /-ktub/ in the form of the root /KTB/, which is the verbal stem minus the tense marker /ø-u/. The result can be formulated in the following string:

{P₁} + {KTB} + {P₂}

Now, {P₂} is formally realized by a pronominal prefix which is added to {KTB}. In such cases of floating tense, Arabic invariably introduces the verbal root {KWN} to function as a tense-carrier. Thus the above string will be transformed into :

{KWN} + {P₁} + {KTB} + {P₂}

Morphophonemically, {KWN} + {P₁} give /yakūnu/ /takūnu/ /nakūnu/, etc. while {KTB} + {P₂} is realized by any of the following: /yaktub/ /taktub/, /naktub/, etc. The phonological product of the above string would thus be something like:

/yakūnu yaktub/ = '(He will) be writ(ing)'

/takūnu taktub/ = '(She will) be writ(ing)'

/nakūnu naktub/ = '(We will) be writ(ing)'

etc...

According to the rules of generating non-earlier

tenseemes, just mentioned in relation to the non-past tense, Arabic must have the earlier non-past tenseme /yakūnu fa9al/. Arabic does have this tenseme but it is important to notice that its occurrence and temporal function are rather limited. Arabic uses this tenseme mainly to indicate priority to a series of points of time generally in the non-past temporal field. In other words it is mostly used to refer to actions that frequently or habitually take place earlier than a series of non-past points of reference. A typical linguistic environment for the occurrence of this earlier-present tenseme is as found in the following sentence, for example:

/fi ttāsi9a min kulli šabāḥ ʔakūnu taraktu lbayta
ʔila jjāmi9a/

'By nine every morning, I have left home for the
University.'

The earlier-tenseme /ʔakūnu taraktu/ in the above sentence does not refer to a time specifically earlier than the present moment, or the moment of speech. 'Earlierness' is here indicated in relation to a series of points that extend from the past to the future and pass through the present. That is why these points of time cannot be said to occur in the present, but rather at non-past since the non-past temporal field

is the unmarked member of the contrastive pair past vs. non-past and may thus cover the present and the future as well as the past. It is for this lack of specificity that the tenseme /yakūnu fa9al/ has been excluded from the discussion on basic tenseemes at the outset of Chapter Two. This tenseme, it was said there, has no unique and specific temporal location. Moreover, it is more frequently used in Arabic for its 'tentative' value rather than for its temporal significance, as will be seen in Chapter Six.

The non-past, it has already been pointed out, may refer to the future by the help of temporal adverbials of futurity, e.g.

/huwa yusāfir ghadan/ 'He travels tomorrow.'

As a non-past tenseme, the earlier non-past tenseme /yakūnu fa9al/ is therefore commonly found in Arabic associated with adverbs of futurity to refer to a time earlier than a point of time in the future. This use is found in sentences like the following:

/fi ssana lqādima ?akūnu raji9tu ?ila l9irāq/

'By next year, I (will) have returned to Iraq.'

Such functions of tenseemes that depend on associations with certain temporal adverbials are not regarded as systematic however since, on their own, the tenseemes will be unable to indicate the same linguistic

functions.¹⁹

To refer specifically to a time earlier than the present point of utterance, Arabic does not use any aspectual markers for this purpose. Rather, it uses the simple-past tenseme. Thus the equivalent of both English tenseemes in:

1. I saw the film last week, and
2. I have seen the film already,

is the simple-past tenseme /raʔaytu/ 'I saw' in Arabic. It could be said therefore that Arabic does not formally distinguish between earlier-present and simple-past in its tense system. The above statement, however, needs to be modified since, as has just been shown, Arabic does have the earlier non-past tenseme /yakūnu fa9al/ which in some of its uses may indicate earlier-present, though always with tentativeness, as in:²⁰

/lʔān yakūnu qad sāfar/

'(By) now, (he will) have gone.'

(B) Earlier Aspect

In a binary analysis of aspect in Arabic, the earlier aspect {D₂} is temporally the 'marked' member

¹⁹ See Chapter Six for a full discussion and analysis of the 'systematic' versus the 'non-systematic' functions of tenseemes in Arabic.

²⁰ See Chapter Six on the different function /yakūnu fa9al/.

of the pair earlier vs. non-earlier aspect, though formally it is the 'unmarked' member, as has just been said in the previous section. The earlier aspectual marker {D₂} is formally realized by a zero prefix, i.e. by the absence of a pronominal prefix in front of a verbal stem. Thus the past-tense verb /katab/ 'wrote', for example, which formally consists of the root {KTB} plus the past-tense vowel marker {D₁} in the form of /a-a/, will become as:

{D₁} + {KTB} + {D₂}

when the earlier aspectual marker {D₂} is also used.

The tense-carrier {KWN} is then introduced to carry the floating tense-marker {D₁}. This will give:

{KWN} + {D₁} + {KTB} + {D₂}

{KWN} plus {D₁} will formally be represented by /kāna/ while {KTB} plus {D₂} by /katab/. The end-product of the above formula would thus morphophonemically appear as /kāna katab/ which temporally signals earlier-pastness.

The temporally-unmarked non-earlier aspect, which is formally indicated by a prefix in front of the verbal stem it is attached to, can also include the temporal location of the earlier aspect, as has just been said, due to its being the unmarked member of the two contrastive aspects. Thus in a sentence like:

/kāna yaktub 9indamā dakhaltu/

'(He) was writ(ing) when (I) entered.'

the non-earlier prefix /ya-/ in /yaktub/ signifies that the action of writing was non-earlier, i.e. was going on, at a point in the past indicated by /kāna/ in the above sentence. Though {P₂} says nothing about the earlierness of the action of 'writing' in relation to this past point, it may well be that the 'writing' was started long before that past point, which is further specified in the above sentence by the temporal adverbial /ʕindamā dakhaltu/ 'when (I) entered'. It is important to notice that here the distinction between the marked vs. the unmarked members of aspect is both temporal and formal, unlike in tense where it is only temporal.

Generally speaking, the non-earlier aspect indicates time at and after a given point of reference. Specifically, however, Arabic can separately refer to a temporal location either simultaneous with a point of reference or later than that point of reference. Arabic does so by two linguistic means. First, it can use various temporal adverbials with the simple tenses to specify certain temporal locations. Second, it does so by the use of some specialized aspectual markers. We are mainly interested in the second alternative for the time being; yet it might well be desirable just to give some examples on how the use of temporal adverbials can specify temporal locations within the non-earlier aspectual temporal area:

1. /ʔana ʔaktub lʔān/

'I (am) writ(ing) now.'

2. /huwa yusāfir ghadan/

'He travels tomorrow.'

The temporal adverbials /lʔān/ and /ghadan/ when co-occurring with the simple non-past tenseemes /ʔaktub/ and /yusāfir/ help to indicate respectively simultaneity with and lateness than the point of reference of the non-past tenseemes, which is the moment of speech.²¹

(C) Simultaneous Aspect:

As for the specialized markers of simultaneity and posteriority, Arabic uses the markers {P₂∅} and {P₂+}, respectively. Formally, the former variety of aspectual markers is realized by a special vowel morpheme plus some prefixes in certain cases. Thus in /nāʔim/ 'sleeping', the simultaneity marker is the vocalic pattern /ā - i/, whereas simultaneity is indicated by the prefix /mu-/ plus the vocalic pattern /a - i/ in other verbal forms such as /mutarjim/ 'translating' or /mudahrij/ 'rolling'. This variety of aspectual markers is only found in the active (present) participles and passive (past) participles in Arabic. Both kinds

²¹ In some cases, the moment of reference could be 'the moment of writing' rather than of 'speech'. Hence, Allen's suggestion to call it 'the moment of coding' seems justifiable.

of participles will be the subject of a detailed analysis in the next chapter.

(D) Later Aspect:

Posteriority in Arabic, as has already been said, is indicated by the aspectual marker {P₂+} which is formally realized by the pre-base /sa-/, or the form /sawfa/, plus a pronominal prefix. It is important to notice, however, an interesting idiosyncrasy about the linguistic behaviour of the later-aspectual marker in Arabic: {P₂+} is the only aspectual marker that can co-exist with a tense marker within the boundaries of a single verbal form. The previously-mentioned principle that no two temporal markers can simultaneously be significant in any verbal base²² is still unviolated, however. This is since {P₂+} is always prefixed to verbal bases and thus lies outside the boundaries of the verbal base itself.²³ Thus Arabic has the verbs /sayusāfir/ 'will travel', /sayaktub/ 'will write', /sayutarjim/ 'will translate', etc. each of which temporally consists of {P₁} + {P₂+} without the need to introduce a tense-carrier since there is no 'floating' tense in this case.

Arabic, however, does not have the corresponding later-past tenseemes */sasāfar/ 'would travel', */sakatab/ 'would write' and */satarjīm/ 'would translate'. With the past tense, Arabic does not tolerate the co-existence of tense and aspect within

²² See page 472

²³ See Part One for definition of verbal base.

^{single}
 any verbal form, even when one of them lies outside
 the verbal base. Consequently, Arabic has the following
 tenseemes for the above three ungrammatical later-past
 ones respectively :

/kāna sayusāfir/	'would travel'
/kāna sayaktub/	'would write', and
/kāna sayutarjim/	'would translate'

It has to be pointed out therefore that it is one of
 the idiosyncracies of Arabic that it has exempted its
 later-present tenseme from the general rule of having
 to have a tense carrier. Yet, it is also important to know
 that Arabic does allow its general rule of the use of
 tense carriers to apply even to the later-present
 tenseme and thus produces the predictable tenseme
 /yakūnu sayaf9al/ side by side with the idiosyncratic
 /sayaf9al/. The fact is still, however, that Arabic
 has both later-present tenseemes and that the latter is
 much more frequently used for future time reference
 and can thus be said to be the true later-present
 tenseme. Arabic in fact uses its two later-present
 tenseemes somewhat differently. The shorter form
 /sayaf9al/ is used as the normal later-present tenseme,
 viz. to indicate time later than the present moment
 or the moment of speech. The longer form, however,
 is less used and its function is usually limited to

refer to a time later than a series of non-past points of time. In other words, it is often used to refer to a habitual action that takes place, tentatively, later than some points of time repeated at non-past. A typical example of the use of the longer later-present, or better 'later non-past', tense is a sentence like the following:

/fi mithli hādha lwaqti min kulli ṣayf naḥnu
nakūnu sanusāfir ?ilā lubnān/

'At this time every summer we are (just about) to travel to Lebanon.'

The ability of all non-past tenses to refer to the future when associated with adverbials of futurity enables this variety of later non-past tense to indicate a time later than a future point when associated with the appropriate adverbials of time for this purpose. An example of this use is the following sentence:

/fi hādha lwaqti ghadan ?akūnu sa?usāfir ?ilā
 ?adinbara ba9da sā9atayn/

'At this time tomorrow, I will (be due to) leave to Edinburgh in two hours.'

In order to refer to an action/state that will take place after the point of speech, Arabic uses the shorter variety of the later-present tense. This is

because such actions/states take place after a single point of reference, and not a series of points, at non-past and because the action/state is not tentative or habitual, e.g.:

/fī tammūz sanūsāfir ʔilā lubnān/

'In July, we shall travel to Lebanon.'

(G) The Temporal Distribution of Arabic Tenseemes

Temporality in Arabic verbs, as has already been mentioned, is formally marked by the two tense markers {D₁} and {P₁} that indicate temporal fields and by the four aspectual markers {D₂}, {P₂}, {ʔ₂∅} and {P₂+} that specify various temporal locations within these two temporal fields. From the various combinations of tense and aspectual markers there result three main tenseemes for each of the two tenses in Arabic. These three main kinds of tenseemes are as follows:²⁴

1. Basic Tenseemes

Formal Structure: tense marker:

(a) {P₁} = Non-past (Present)

(b) {D₁} = Past

Temporal Reference:

time simultaneous with that of the point of reference indicated by either of the above tense markers (or, basic tenseemes refer to the whole temporal field of that tense).

²⁴ These tenseemes are regarded as 'main' since each is unique in indicating a specific temporal order, whereas all other tenseemes consist of different combinations of these three orders.

2. Earlier Tenseemes

Formal Structure: tense marker + {D₂}:

(a) {P₁} + {D₂} = Earlier Present

(b) {D₁} + {D₂} = Earlier Past

Temporal Reference:²⁵

time 'earlier' than that of the point of reference indicated by the above-mentioned two tense markers.

3. Later Tenseemes

Formal Structure: Tense marker + {P₂+}

(a) {P₁} + {P₂+} = Later Present

{D₁} + {P₂+} = Later Past

Temporal Reference:²⁶

time 'later' than that of the point of reference indicated by the above-mentioned two tense markers.

The above six Arabic tenseemes, three from each tense, can be found in the following sentences together with their new labels suggested here:

1. Non-Past (Present) Tense

(a) /huwa yanām mubakkiran kulla yawm/)

'He sleeps early everyday) = Basic

(b) /huwa yanām l?ān/)

Present

'He sleeps now.'

²⁵ See the temporal limitations of the earlier non-past tenseme just mentioned in this chapter.

²⁶ See the two varieties of later non-past mentioned on page. 495

- (c) /huwa yakūnu nāma l?ān/²⁷ = Earlier
'He (will) have slept by now.' Present
- (d) /huwa sayanām/)
'He will sleep.')
- (e) /huwa yakūnu sayanām fi)
hādha lwaqti ghadan/) = Later
'He (will) be (about) to go) Present 28
to sleep at this time tomorrow'.)

2. Past Tense:

- (a) /huwa shtaghala kathīran)
9indamā kāna shābban/)
'He worked hard when he) = Basic
was young') Past
- (b) /huwa shtaghala kathīran)
yawma ?ams/)
'He worked hard yesterday'.)
- (c) /huwa kāna shtaghala kathīran)
qabla maradihi fi shshahri)
lmādi/) = Earlier
'He worked hard before his) Past
illness last month.'
- (d) /kāna sayashtaghil kathīran)
ba9da wusūlinā bil?ams) = Later
'(He) would work hard after our) Past
arrival yesterday.'

(H) Temporal Chart for Arabic Tenses and Tenseemes

The seven primary tenseemes in the Arabic tense system listed earlier on page 408 are, as has been

²⁷See the restrictions on the use of 'earlier-present tenseme already stated in this chapter on page 490.

²⁸For the restrictions on the use of both varieties of later-present, see pp. 495 - 496

argued in the above discussions, best analyzable in terms of two tenses. This binarity in Arabic tense may diagrammatically be represented as follows:

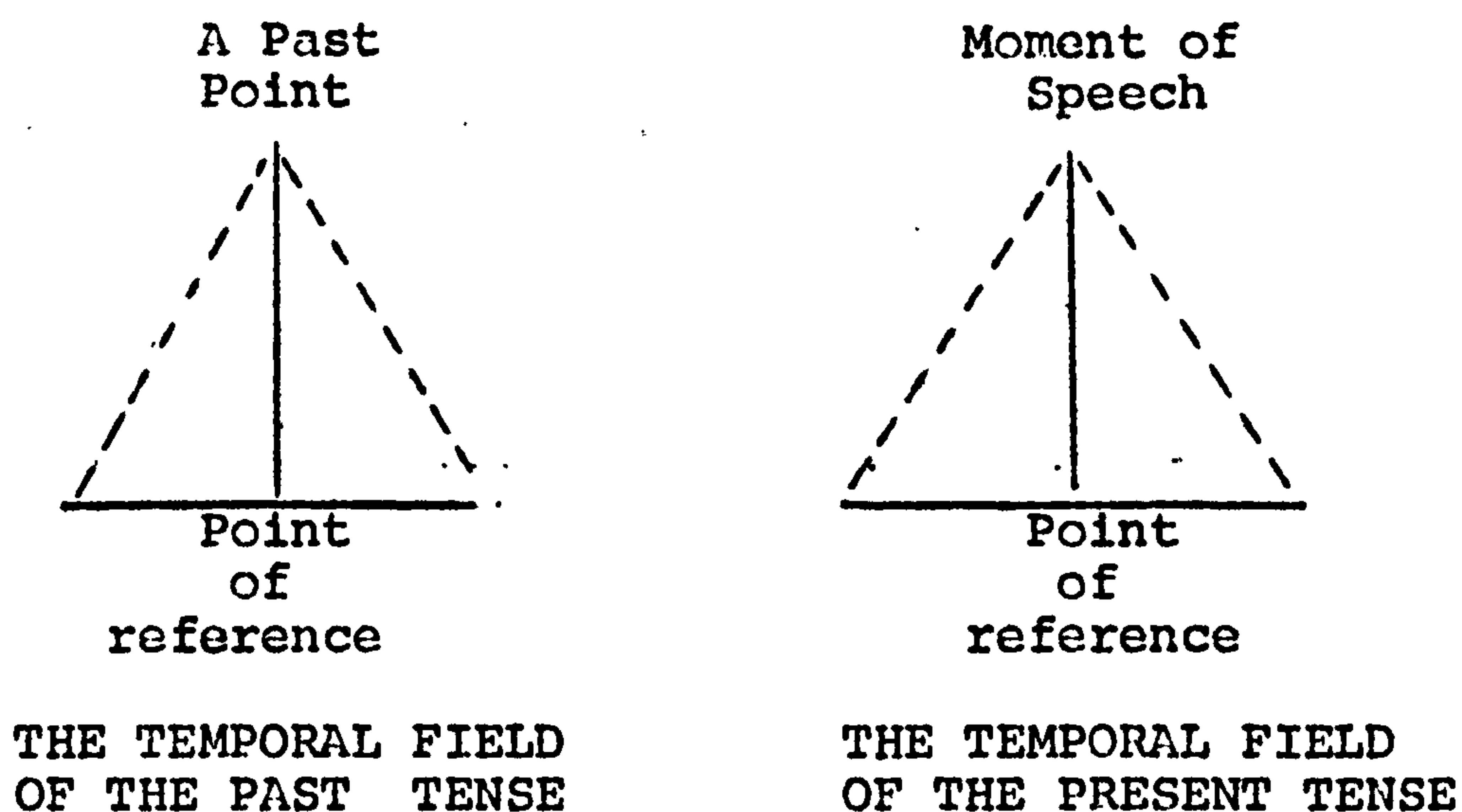


Diagram 19

Giving each tense its three main tenseemes mentioned earlier would yield the following diagrams:

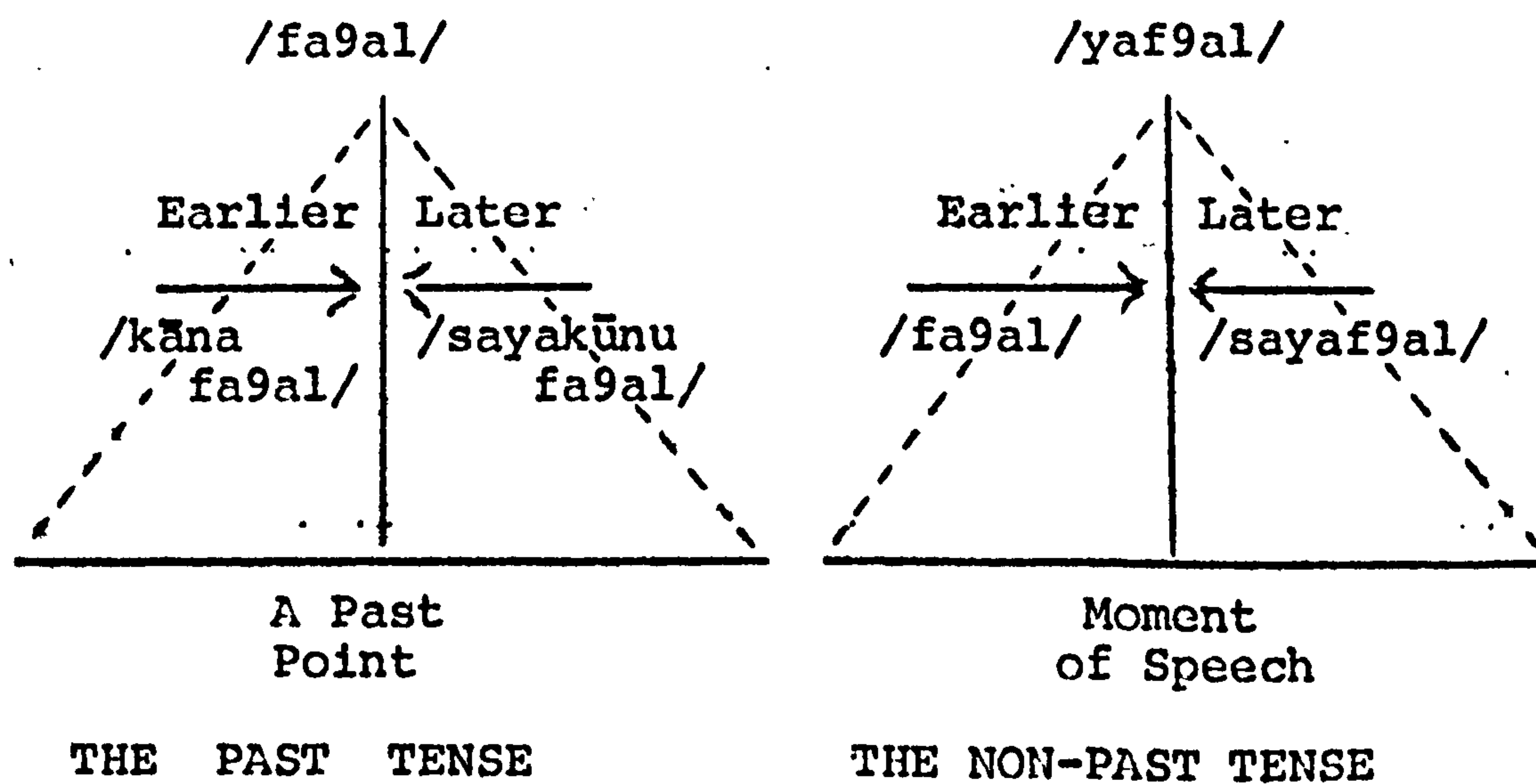


Diagram 20

From closely examining the above two diagrams, the following facts emerge :

(1) That Arabic does not formally distinguish between earlier-present and basic-past.²⁹ In the diagrams above, the verbex /fa9al/ appears in two places, viz. both as an earlier-present tenseme and as a basic-past tenseme.

(2) That only five of the seven primary tenseemes appear in the diagrams above. The two tenseemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ are not indicated in the binary analysis as given above. The two missing tenseemes, however, are seen here to belong to a special sub-system within the general overall tense system in Arabic and are accordingly analyzed as such in the next chapter which deals with other sub-systems in the Arabic general tense system as well.

Due to the fact that Arabic does not distinguish formally between earlier-present and basic-past temporal locations, it might be desirable to work out a temporal tense chart in which the duplication of /fa9al/ is avoided. A necessary requirement in such a temporal chart is to retain the binary nature of temporality in Arabic tense. Such a temporal chart

²⁹ See p.490 for a discussion on this point.

has also to show that the non-past tense is all-inclusive in that its temporal field may infinitely extend into the past and the future, and that the past tense is actually only subsidiary to the non-past in this sense.

The following temporal diagram is worked out to represent the structure of the Arabic tense system in the light of the above-mentioned requirements:

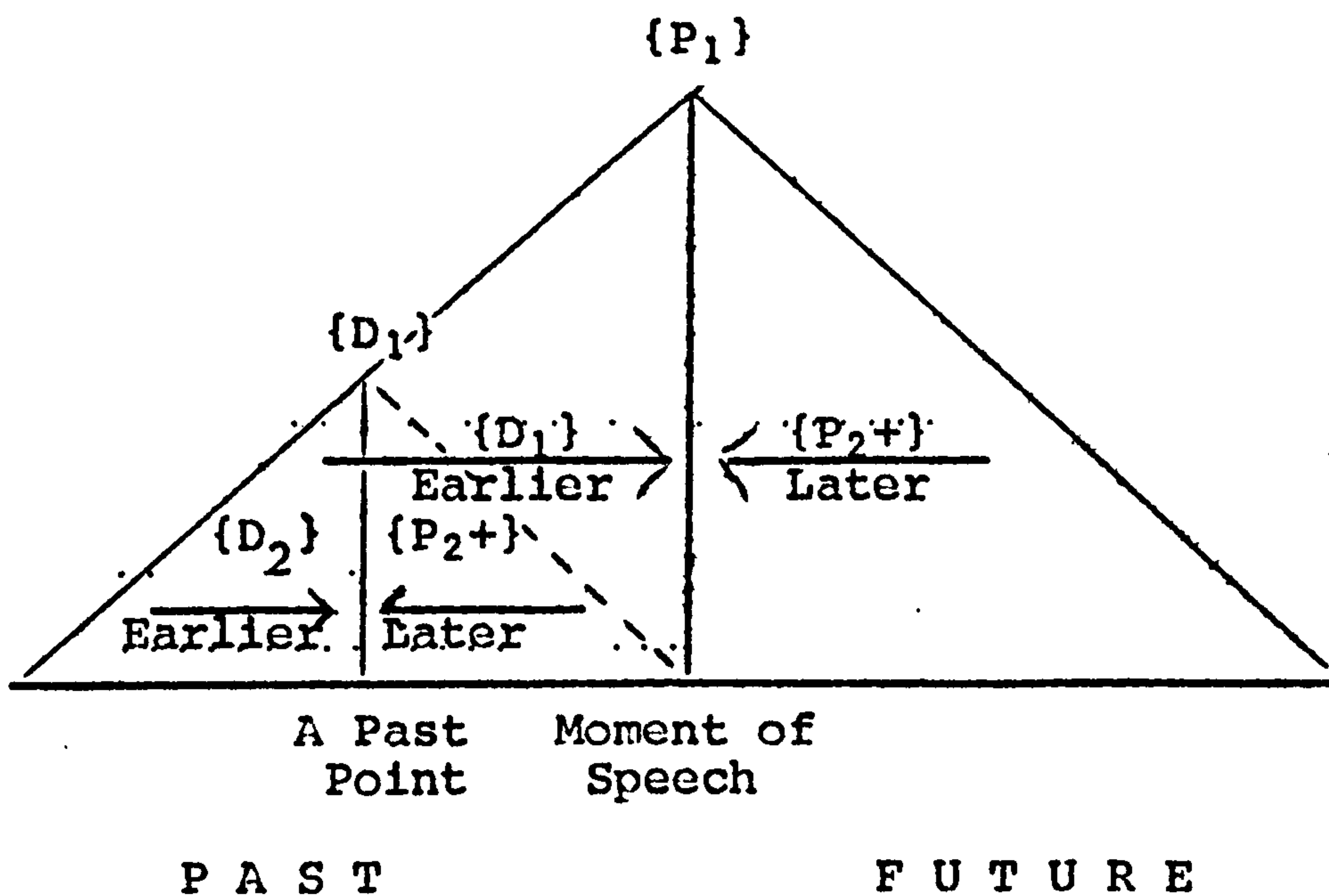


Diagram 21

The Comprehensive Temporal Triangle

Replacing the temporal markers in the diagram above by actual tenseemes will give the following formal-temporal diagram:

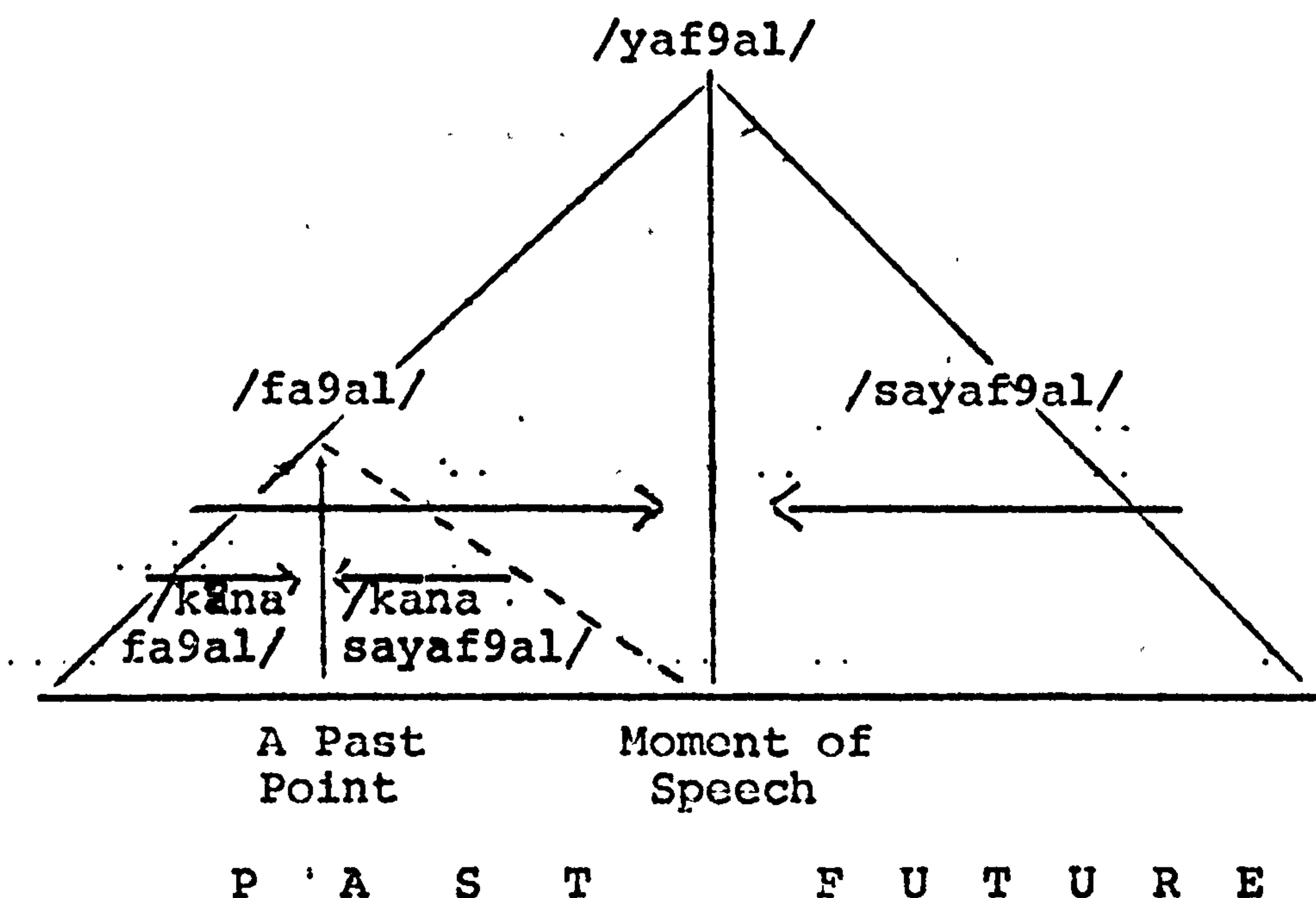


Diagram 22

A Formal-Temporal Distribution

Diagram 22 above clearly shows that the past tense, though a temporal field on its own, is in fact indirectly oriented to the moment of speech, viz. a past point of time is only considered 'past' because it took place earlier than the moment of speech. The diagram, moreover, contains no redundancy either temporal or formal. Thirdly, it shows the binary nature of temporality in the Arabic tense system. Its obvious shortcoming, however, is that it accounts for only five verbal forms out of the primary seven. The two missing tenseemes, it is to be realized however, could be fitted into diagram 22 above without much difficulty; their temporary exclusion is only a

procedural decision and they will be incorporated into the tense chart once their temporal analysis has been done in the next chapter.

(I) Recapitulation

To recapitulate, it can be said that some sort of temporal reference is indispensable in any verb in Arabic. Formally, the whole structure of tense in Arabic could be seen as consisting of markers that stand for points of reference and other markers that represent various temporal orders relative to those points of reference. The former variety of markers is represented by the past and the non-past tense markers {D₁} and {P₁}, whereas the aspectual markers {D₂}, {P₂}, {P₂+}, and {P₂Ø} represent the temporal orders. All Arabic tenseemes are the outcome of various combinations between the above two varieties of markers.

An Arabic verb could be seen as basically consisting of a root plus one or more temporal markers. Verbal roots represent actions/states, and all such actions/states must take place in time in Arabic. A verbal root thus is always modified by at least one temporal marker. Temporal markers can either be tense markers, which indicate points of reference, or aspect markers, which specify different temporal orders in relation to the points of reference. Binary

analysis seems best suited for the description of temporality in Arabic, as can be seen from Diagram 23 below:

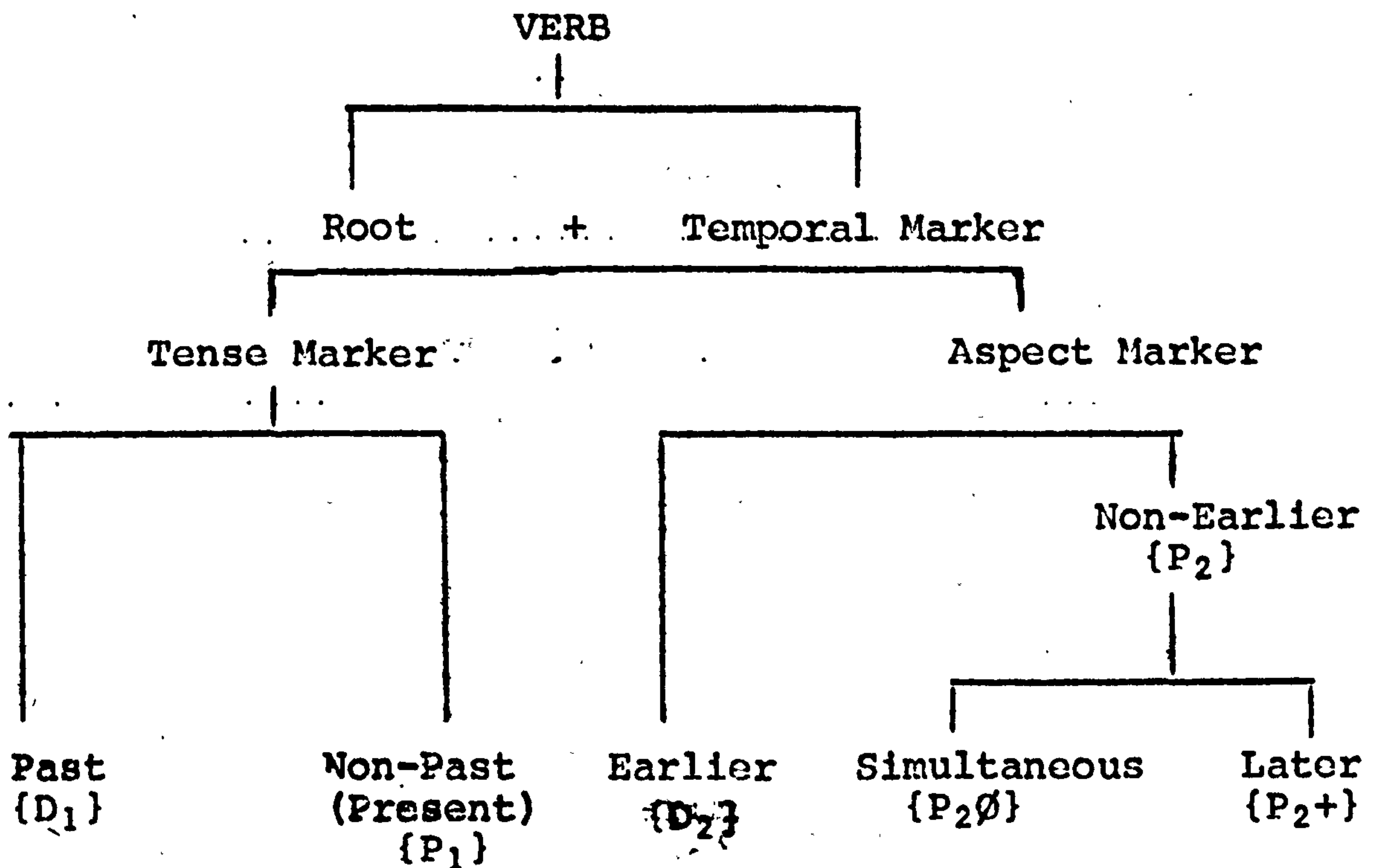


Diagram 23

Binary Oppositions in the Arabic Tense System

A verbal stem in Arabic can only contain one temporal marker operating significantly, viz. either a tense marker or an aspectual marker. When a second and/or third temporal marker is, used, it always occupies the verbal root leaving other temporal markers 'floating'. In cases like these, Arabic introduces the verbal root {KWN} to act as a carrier for the 'floating'

temporal marker(s).³⁰ This explains the presence of a form of /kāna/ in Arabic compound and complex tenseemes.

It is finally important to realize that Arabic tenseemes do not directly indicate 'time' as such, i.e. pastness, presentness, or futurity. Basically, they indicate temporal order relationships in reference to a point of orientation. The basic point of orientation is the point of speech and the auxiliary point of reference in Arabic is a past point of time. Thus a verb like /katab/ 'wrote' merely tells us that the action of writing took place before the point of speech. Pastness is understood only because it is known that the point of speech is always at simultaneous present to the speaker and that any time before it is consequently bound to fall in the past. To locate actions in time directly and specifically is the role of temporal adverbials.³¹

³⁰ For the special case of the later-present tenseeme /sayaf9al/ in this respect, see p.494

³¹ For a temporal classification of adverbials in Arabic, see Chapter Six.

CHAPTER FOUR

SUB-SYSTEMS IN THE ARABIC TENSE SYSTEM

(A) Introduction

The general outline of the Arabic tense system analyzed in Chapter Three deals basically with the points of reference and the temporal locations of various actions/states in relation to those points of reference. There are, however, some other facts of tense which have more to do with the psychological side of time. For example, whether to view an action/state as continuous or not is more determined by the speaker's/writer's attitude than by the nature of the action/state itself. Moreover, however one likes to view an action/state psychologically, it does not much affect the temporal location of that action/state; it rather adds to it other temporal nuances. This is why Arabic tenseemes with duration or simultaneity temporal values, but otherwise without unique locational values, have not been included among the seven primary tenseemes discussed in Chapter Three. Such secondary tenseemes are regarded as forming sub-systems within the framework of the general system discussed in the previous chapter.

The manipulation of Arabic tenseemes to indicate

various concepts other than time is also discussed under certain sub-systems since such non-temporal uses of tenseemes are inexplicable in terms of the general framework of tense already discussed for Arabic. To generalize then, it may be said that any linguistic phenomenon in which the use of tenseemes cannot be explained according to the principles of the general tense system belongs to a sub-system. For Arabic, the general tense system has already been outlined and discussed in Chapter Three. Thus, all linguistic phenomena discussed in this chapter must have certain peculiarities in the use of their tenseemes and accordingly were not analyzed earlier. It is important, however, to understand that each of the sub-systems discussed below has its own internal regularities and built-in systematic features, as will be shown in the following discussions.

(B) Double Orientation

It has already been said that there are two points of reference in Arabic: viz. a past point of time and a present point of time. Formally, it has also been said that the former is represented by {D₁} and the latter by {P₁}. All Arabic tenseemes are to be oriented in time to either of the above-mentioned points of reference. Moreover, it has been stated that every tenseeme is only oriented to a single point of

reference at a time. This last statement about the singularity of orientation is not, however, without a few exceptions in Arabic. The primary tenseemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ represent the two major exceptions. This is why these two tenseemes were not incorporated earlier in the formal-temporal diagram of primary tenseemes on page 503 and why their analysis has been deferred until now.

A primary tenseme like /sayakūnu fa9al/ is formally marked both for laterness by the {P₂+} in /sa-/ plus the pronominal prefix /ya-/ and for earlierness by {D₂} in /fa9al/. It is axiomatic, however, that an action cannot at the same time fall both later and earlier than the same point of reference. There is bound therefore to be more than one point of reference in such tenseemes. This assumption is in fact verified by a notional analysis of the temporality of the above tenseme. The action /fa9al/ is to take place earlier than a point of time in the future but later than the present point of speech. The tenseme /sayakūnu fa9al/ is thus doubly and simultaneously oriented to two points of reference: a present point and a future one. Formally, however, Arabic does not distinguish between these two point of reference.¹ Future points in

¹ Compare English page 113

Arabic are regarded only as later-present and are consequently formally marked by the present point of orientation $\{P_1\}$ plus the later-aspectual marker $\{P_2+\}$. The above tenseme, thus, is formally marked only by $\{P_1\}$, which temporally represents a present point of reference when on its own and a future point when in conjunction with $\{P_2+\}$.

The case of the other primary tenseme, viz. /kāna sayakūnu fa9al/ is not dissimilar. Again it has two contradictory aspectual markers, i.e. of lateness and of earlierness. The whole tenseme is formally marked for orientation to a past point of reference by $\{D_1\}$ in /kāna/. The above tenseme is understood as temporally indicating an action that was to take place later than a past point and earlier than another point that was still future at that past point. In other words, the above tenseme temporally indicates earlierness to a future point in the past. Formally, however, both a past and a future-in-past points of orientation are represented by $\{D_1\}$ in Arabic. The latter is only aspectually specified by $\{P_2+\}$ which is formally indicated by /sa-/ plus the prefix /ya-/ in the above tenseme.

It thus becomes clear that simultaneous double orientation is only possible when the two points of

reference are formally identical. With this reservation in mind, the generalization, mentioned in Chapter Three, that no double simultaneous orientation is acceptable in Arabic thus holds true and is not violated by the above two tenseemes.

The above discussion on the simultaneous double orientation of the complex tenseemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ may be given a digrammatic representation as follows:

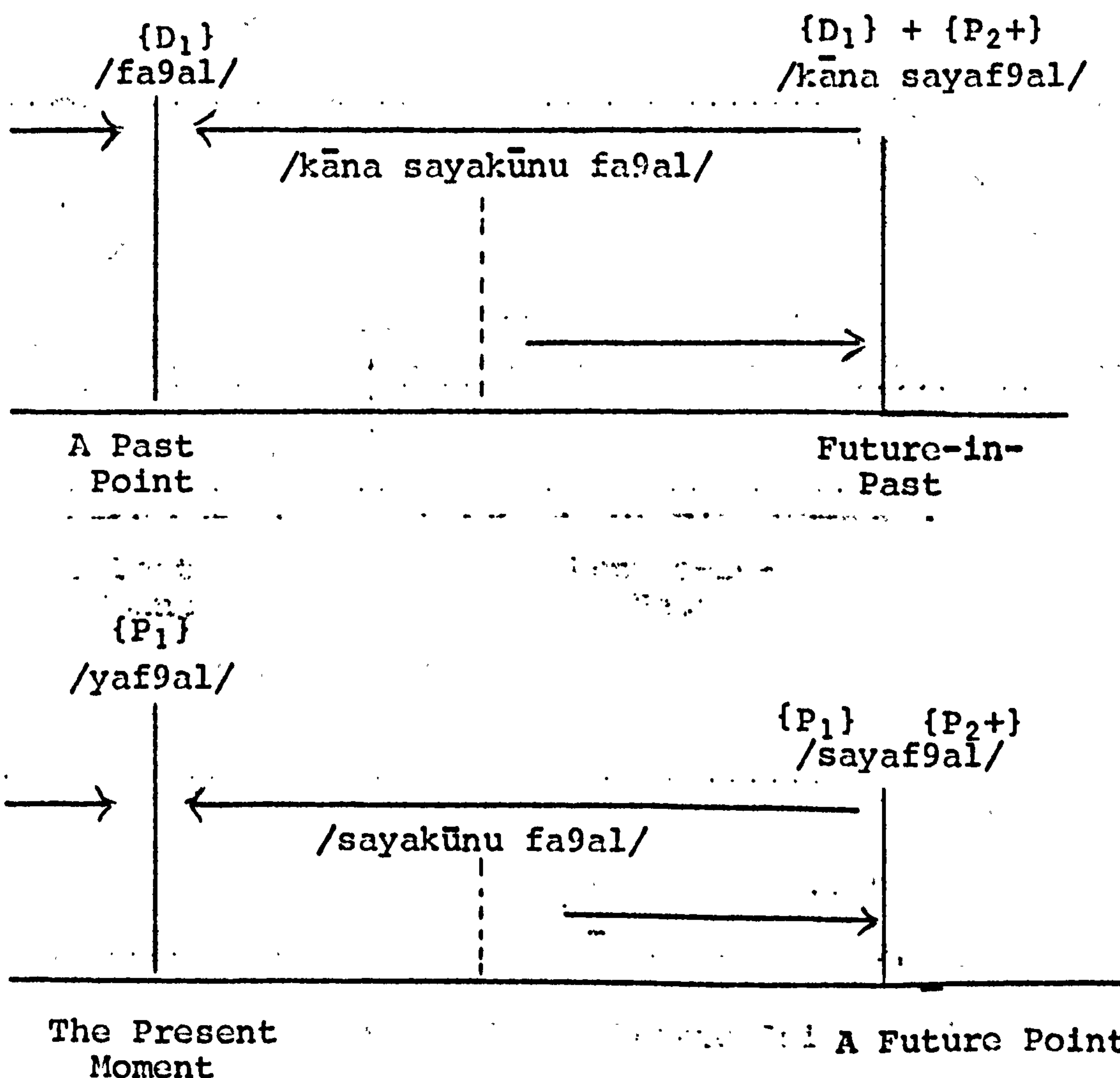


Diagram 24

Simultaneous Double Orientation in Arabic

To incorporate the two primary tenseemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ in the general diagram of the primary tenseemes shown on page 503, the following expanded diagram is drawn :

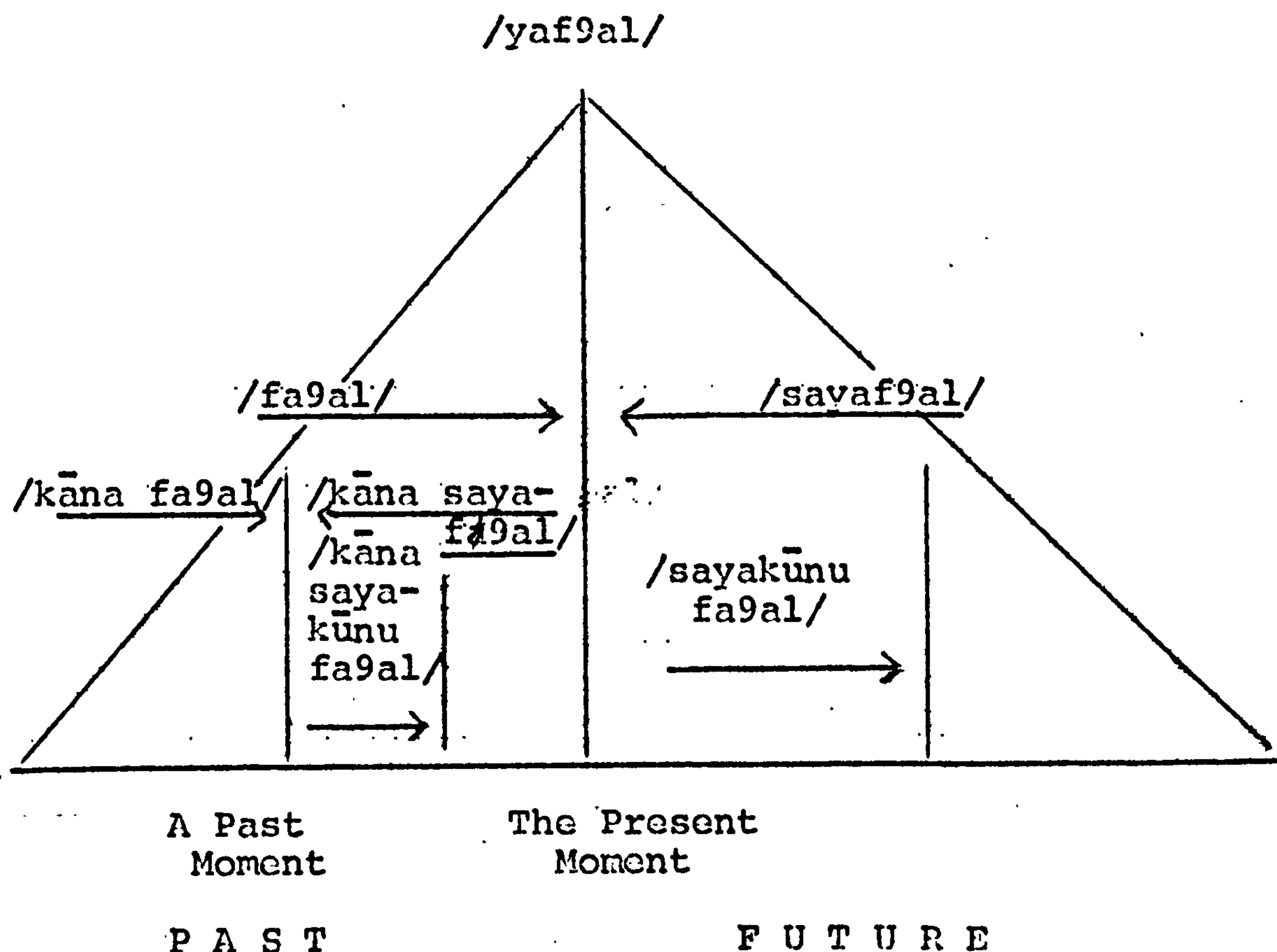


Diagram 25

The General Temporal Chart of Arabic Tenseemes

Diagram 25 above assigns temporal locations to all the seven primary tenseemes of Arabic listed on page 408. It remains, however, to explain the temporal values of the secondary tenseemes in Arabic, viz.

verbal clusters that contain the aspectual markers of simultaneity and non-earlierness. Such tenseemes have been considered as 'secondary' in the sense that they do not indicate unique temporal locations on the general temporal chart of the Arabic tense system shown on page 512. Hence, their full discussion has been put off up to now.

(C) Simultaneity in Arabic Tenseemes

1. 'Active' and 'Passive' Participles

As has already been mentioned in Chapter Three, simultaneity in Arabic is formally indicated by the temporal aspectual morpheme {P₂Ø}. This morpheme, it has been said, is formally realized in Arabic only as part of a participle. Now, Arabic participles are of two types: (a) the active participle and (b) the passive participle. The first type of participles is seen in such forms in Arabic as: /nāʾim/ 'sleeping', /wāqif/ 'standing', /mutarjim/ 'translating', etc. whereas the passive participles are forms such as: /maksūr/ 'broken', /maktūb/ 'written', /mahjūr/ 'deserted', /mamnūʾ/ 'forbidden', /mutarjam/ 'translated', etc. Participles, when used verbally in Arabic,² indicate simultaneity with a point of reference or with another action/state if one is

² For the verbal vs. the non-verbal uses of participles see pp. 519 - 527.

mentioned in the sentence, e.g.:

1. /huwa sayakūnu nāʔim laylan/
'He will be sleeping at night.'
2. /kāna nāʔim 9indamā dakhaltu/
'(He) was sleeping when I entered.'
3. /kānat ʔashshawāri9 mahjūra 9indamā waṣaltu/
'The streets were deserted when I arrived.'

In sentence 1 above, the aspectual marker {P₂Ø} in the participle indicates simultaneity between the state of 'sleeping' and a time later than the moment of utterance of this sentence, viz with a future period of time.

In sentences 3 and 4, {P₂Ø} indicates simultaneity directly with a past point of time represented by /kāna/ and indirectly with 'my entrance' and 'my arrival' respectively which took place at that point of time.

There can be two kinds of simultaneity as expressed by the aspectual marker {P₂Ø}; it depends on the point of overlapping between the two simultaneous actions. In a sentence like:

/kāna nāʔim 9indamā dakhaltu/,

'(He) was sleeping when I entered '

the two simultaneous actions/states overlap at the past point of time indicated by /kāna/, i.e. when 'I entered' the state of 'sleeping' was still continuous then. This type of simultaneity is here called 'medial.'

Whereas in a sentence like

/kānat ʔannāfidha maksūra 9indamā waṣaltu/

'The window was broken when I arrived'

there is no actual overlapping between 'my arrival' and the 'breaking of the window', i.e. the window was broken before 'my arrival'. Yet 'when I arrived' I found that 'the window was broken' already. Thus the overlapping, i.e. the point of simultaneity, took place between 'my arrival' and the result of a previous action.³ Allen calls this type of overlapping the 'concomitant' overlapping (Allen, The Verb, p.215). In English, it can be found in sentences like:

Who has been sitting in my chair?

where it is clear that the 'sitting' had already taken place and was over before the utterance of the above sentence. Yet, some results of that 'sitting' must have provoked the speaker of the above sentence.

The distinction between 'medial' simultaneity and 'concomitant' simultaneity is not confined to that between active participles and passive participles, as the above two Arabic sentences might suggest; it can also be found within the active participle itself,

³ Thus the adjectives past and present do not seem to be appropriate for Arabic participles since both indicate temporal simultaneity of some sort. The terms passive and active participles instead of 'past' and 'present' participles are therefore more fitting for Arabic.

as will be shown below. The distinction seems to be based on a contrast between two different types of verbs to which the aspectual marker of simultaneity {P₂Ø} may be added. The distinction between 'bounded' and 'non-bounded' predication or between 'telic' versus 'atelic' verbs has already been made for English (Allen, p.198), French⁴, Spanish, (Bull, pp. 44-49) and German.⁵ Arabic predication seems to fit into this dichotomy as well. A predication like /nāma bimalābisihi/ 'slept in his clothes' is non-bounded in the sense that its validity does not depend on the realization of a goal. Thus sleeping for ten minutes and sleeping for a whole night can both be equally correctly expressed by the above predication. In other words, once an action indicated by such predication takes place, it is at once realized. A predication like /qaraʔa lkitāb/ 'read the book' or /kataba rrisāla/ 'wrote the letter', on the other hand, is 'bounded' in the sense that it is only true when a certain objective is realized, viz. the 'reading' of the book' in the former sentence and the 'writing' of the letter' in the latter. In other words, /qaraʔa lkitāb/

⁴B. Garey, "Verbal Aspect in French," Language, Vol. XXXIII (April-June, 1957), p. 106.

⁵U. Weinreich, "On the Semantic Structure of Language," Universals of Languages, ed. J. Greenberg (Cambridge, Mass.: The M.I.T. Press, 1963), p. 129.

can only be true if the book has really been read.

Hence the validity of the predication is bounded by the realisation of a specific goal.

Though based on semantic criteria, the distinction between 'bounded' and 'non-bounded' predications seems to be a useful one for Arabic.⁶ It serves to explain why the two following sentences, for example, have different types of temporal relationships while formally both have the same temporal markers:

1. /kāna qārīʔan lkitāb 9indamā waṣaltu/

'(He) had been reading the book when I arrived.'

2. /kāna jālisān fi lḥadīqati 9indamā waṣaltu/

'(He) was sitting in the garden when I arrived.'

Both the above sentences are formally marked by:

{D₁} + {P₂∅}

Yet in the former, the man referred to in the sentence may have had already stopped reading before 'my arrival' whereas in the latter sentence, he was still sitting in the garden when 'I arrived'. It thus can be concluded that though {P₂∅} indicates temporal simultaneity, this simultaneity may either be 'medial' or 'concomitant' depending on the semantics of the participle and the predicate it forms a part of, as

⁶Notice that this distinction only applies to active participles since the predications that passive participles occur in are all bounded and hence all their simultaneity would be of the concomitant type.

has been illustrated above.

By analyzing participles in Arabic as indicators of temporal simultaneity, it is now possible to account for all the tenseemes with participles that have been listed on page 405. These tenseemes are:

- | | |
|--------------------------|---------------------------|
| 1. /yakūnu fā9il/ | 2. /yakūnu maf9ūl/ |
| 3. /kāna fā9il/ | 4. /kāna maf9ūl/ |
| 5. /sayakūnu fā9il/ | 6. /sayakūnu maf9ūl/ |
| 7. /kāna sayakūnu fā9il/ | 8. /kāna sayakūnu maf9ūl/ |

To provide a simple temporal analysis for the above eight tenseemes, the following formulas are used respectively:

- | | |
|--|--|
| 1. Non-past + Simultaneity
(i.e. Simultaneity with
Non-past) | 2. Non-past + Simultaneity
(i.e. Simultaneity with
Non-past) |
| 3. Past + Simultaneity
(i.e. Simultaneity with
a Past Point) | 4. Past + Simultaneity
(i.e. Simultaneity with
a Past Point) |
| 5. Non-past + Later + Simult.
(i.e. Simultaneity with
a Future Point) | 6. Non-past + Later + Simult.
(i.e. Simultaneity with
a Future Point) |
| 7. Past + Later + Simult.
(i.e. Simultaneity with
a Future-in-Past
Point) | 8. Past + Later + Simult.
(i.e. Simultaneity with
a Future-in-Past
Point) |

It can be clearly seen from the analysis above that, temporally, each tenseme in the left column above is identical to the opposite tenseme from the right column. The difference between any tenseme with /fā9il/ and the one opposite it above with /maf9ul/ has thus nothing to do with time; it is rather a difference between the active voice in the former category and the passive voice in the latter. It thus seems justifiable in the present study, the object of which is to discuss and analyze temporality, to disregard all the tenseemes that appear in the second column above. A hasty disregard of tenseemes with passive participles may, however, prove unwise since there may be certain linguistic situations, regardless of voice, where such tenseemes rather than those with the active participles are used. Such special functions, if any, of either type of participles will be arrived at in the analysis of the tests data in Chapter Six. It is only then that it can be safely decided whether to disregard passive participles as possessing no temporal uniqueness at all or not.

2. The Verbal versus Non-Verbal Functions of Participles

Both varieties of participles in Arabic fulfil many types of grammatical functions; they can function as nominals, or adjectivals, or verbals. Since the significance of any linguistic form partly depends on its

position in a given utterance (Allen, The Verb, pp.121-122), it is important to sort out the verbal positions of participles in Arabic. This is so since it is important to remember that it is only when participles have a verbal function that their {P₂Ø} markers indicate the temporal value of simultaneity. The non-verbal use deprives participles of any temporal value since by definition a participle in a non-verbal position can no longer assume a verbal function in that position.

The simplest and most direct way of sorting out the verbal versus the non-verbal functions of participles in Arabic is that of substitution. A given participle has a nominal function as long as it can be replaced by nouns in any linguistic utterance.⁷ Thus in the following sentences, the underlined participles are nominals:⁸

⁷ A noun in Arabic is defined here as any form that can take a pronominal possessive suffix like /-i/ 'my', /-ak/ 'your', /-uh/ 'his', etc. in /kitābi/ 'my book', /sā9atak/ 'your watch', /ʔabūh/ 'his father'. An adjective, on the other hand, is a form that can be inflected for degree, such as /jamīl/ 'pretty', /ʔajmāl/ 'prettier', /ṭawīl/ 'tall, long', /ʔaṭwal/ 'taller, longer', etc.

Possession and Degree, however, are only the exclusively characteristic features of nouns and adjectives, respectively. Otherwise, nouns and adjectives share many common morphological features together, such as: gender, number, and definiteness.

⁸ A nominal is a form that has the function of a noun but is not necessarily a noun itself as far as form is concerned.

1. /qātilu lmar?a harab/

'The murderer of the woman has run away.'

2. /qabaḍat ?ashshurṭa 9alā qātīli lmar?a/

'The police have arrested the woman's murderer.'

3. /?annā?im lā yarā/

'The sleeper does not see.'

4. /?almaḍīnūna ḥazīnūna/

'Those in debt (are) unhappy.'

The above participles could all be replaced by nouns and the resulting sentences would still be grammatical, as in:

1. /?ibnu lmar?a harab/

'The son of the woman has run away.'

2. /qabaḍat ?ashshurṭa 9alā ?ibni lmar?a/

'The police have arrested the son of the woman.'

3. /?arraḡulu lā yarā/

'The man does not see.'

4. /?alsuḡanā?u ḥazīnūna/

'The prisoners (are) unhappy.'

Adjectival functions of participles can also be detected by substitution. Any participle is adjectival if it is correctly substitutable by an adjective.⁹ Thus the following underlined participles are all adjectival:¹⁰

⁹ For definition of adjectives in Arabic, see footnote 7.

¹⁰ Adjectivals are forms that function as adjectives, but are not necessarily formally adjectives themselves.

1. /huwa nāʔim/

'He (is) asleep.'

2. /ʔalbāb maftūḥ/

'The door (is) open.'

3. /ʔarraǰulu jjālis ʔakhi/

'The sitting man is my brother.'

4. /ʔalqalamu lmaksūr qalami/

'The broken pencil is mine.'

Replacing the above four participles by adjectives would yield in the following grammatical sentences:

1. /huwa dhaki/

'He (is) clever.'

2. /ʔalbāb jadīd/

'The door (is) new.'

3. /ʔarraǰulu ṭṭawīl ʔakhi/

'The tall man is my brother.'

4. /ʔalqalamu lʔaḥmar qalami/

'The red pencil is mine.'

Finally, participles that function verbally are those that occur in linguistic positions where they are ONLY correctly replaceable by verbs.¹¹ It is observable, however, that participles occurring independently, i.e. without being part of a verbal cluster, are usually replaceable in Arabic by adjectives

¹¹ See Part One for definition of verbs.

and/or nouns. It is thus important to point out that participles function verbally mostly when part of verbal clusters. This may explain why in the present tense, participles mostly function as non-verbal. Arabic does not usually make use of verb 'to be' as a copula in the present tense and consequently participles do not appear in verbal clusters in this tense. Thus in the following two sentences, the participles are functioning non-verbally since they are substitutable by nouns and adjectives, respectively:

1. /huwa kātib 9aẓīm/

'He (is) a great writer.'

2. /huwa nāʔim/

'(He (is) asleep.'

Consequently, to indicate simultaneity of any action with the present point of speech, Arabic resorts to basic-present tenseemes plus some adverbials of inherent temporal simultaneity, e.g.:

1. /huwa yaktubu lʔān/

'He (is) writ(ing) now.'

2. /huwa yanām fi lwaqti lhādir/

'He (is) sleep(ing) at present.'

Since participles are not marked by tense-markers, they always occur non-initially in verbal clusters. The following are some of the verbal positions of

participles:

1. /kāna salīm nāʔim 9indamā dhahabtu/
'Salīm was sleeping when I went.'
2. /kāna lbāb maftūh fi ṣṣabāh/
'The door was open in the morning.'
3. /satakūnu shshamsu sāti9a fi ṣṣayf/
'The sun will be shining in summer.'
4. /kānati nnāfidha maksūra 9indamā waṣaltu/
'The window was broken when I arrived.'

When applying the test of substitution to discover the verbal functions of participles, it is important to treat the doubtful participle as an inseparable part of the verbal cluster which it is part of. Thus in sentence (1) above, the whole verbal cluster /kāna nāʔim/ is correctly replaceable by the verb /nāma/ to yield:

/salīm nāma 9indamā dhahabtu/

'Salīm went to sleep when I went.'

but not by adjectives or nouns. The following, for example, are ungrammatical:

1. */salīm ṣaghīr 9indamā dhahabtu/

*'Salīm little when I went'

2. */salīm rajul 9inamā dhahabtu/

*'Salīm man when I went'

Similarly, the verbs /futiḥat/ 'was opened', /sataṣṭa9/

'will shine', and /kusirat/ 'was broken' could respectively replace the verbal clusters in sentences 2, 3, and 4 above. Replacing the same verbal clusters with adjectives or nouns, however, would produce ungrammatical sentences like the two just mentioned above.

Though rarely, participles do sometimes assume verbal functions when they are not part of verbal clusters. To determine the verbal use of participles in such cases, the same test of substitution just mentioned may be used. Thus in sentences like the following:

1. /huwa kātib darsah/, and

(He writing his lesson)

'He has written his lesson'

2. /huwa qārīʔu lkitāb ghadaʔ/,

(He reading the book tomorrow)

'He will have read the book (by) tomorrow'

the independent active participles /kātib/ and /qārīʔ/ are only correctly replaceable by verbs, e.g. /katab/ 'wrote'; 'has written' or /yaqraʔ/ 'reads'.

Any attempt to replace the participles in the above two sentences by adjectives or nouns would produce ungrammatical sentences such as, for example:

1. */huwa kitāb darsah/ and

*'He a book his lesson'

2. */huwa jadīd lkitāb# ghadan/

'He new the book tomorrow'

where /kitāb/ and /jadīd/ are a noun and an adjective, respectively.

It is perhaps interesting to notice that the aspectual marker of simultaneity {P₂Ø} may sometimes still suggest its characteristic temporal value even when the participle it is part of has a non-verbal function. Thus in:

1. /huwa nāʔim/

'He (is) asleep.'

2. /ʔaʕbāb maftūh/

'The door (is) open.'

the participles /nāʔim/ and /maftūh/, though both having an adjectival function here, still imply simultaneity with the point of speech of the above two sentences.

It is perhaps significant to observe that {P₂Ø} does not suggest any simultaneity at all when part of a participle with a nominal function. Thus in:

/ʔannāʔim lā yadri mā ḥawlahu/,

'The sleeper does not know what is around him.'

the active participle /ʔannāʔim/ which is used nominally here as the subject of the above sentence does not indicate any simultaneity whatsoever. Thus, linguistic analyses which propose that verbs and adjectives may

belong to the same category in the deep structure of English seem to apply in the case of Arabic as well.¹² This may well turn out to be one of the universals in a general theory of language (Lyons, p.326).

(D) 'Duration' and 'Repetition' in Arabic Tenseemes

Arabic seems to distinguish in its verb system between temporal non-earlierness and temporal simultaneity. The latter is indicated by participial verbids, as has been shown in section (C) above. Non-earlierness, however, is indicated in Arabic by the temporal marker of the non-earlier aspect {P₂}. Formally, it has already been stated that the morpheme {P₂} is indicated by pronominal prefixes attached to verbal stems to form verbal bases.¹³ Thus the pronominal prefix /ya-/ indicates temporal non-earlierness of the action of 'writing' represented by the verbal stem /-ktub/ in relation to the point of reference in the following sentences:

1. /kāna yaktub fi ṣṣabāḥ/

'he was writ(ing) in the morning.'

2. /sayakūnu yaktub fi lmāsāʾ/

'He will (be) writ(ing) in the evening.'

The action of 'writing' was going on during a past time

¹² Compare English pp. 167 - 168.

¹³ See Part One for definitions.

indicated by /kāna/ in sentence one above and during a future time indicated by /sayakūnu/ in the second sentence.

The non-earlierness of {P₂} covers times both simultaneous with as well as later than a point of reference. Besides, as the non-marked member of the contrastive aspectual pair earlier and non-earlier, the marker {P₂} may, as has been said earlier, even include earlier time in its temporal field. It may thus refer to an action that takes place at a time which is both earlier than, simultaneous with, and later than a given point of reference. It can, therefore, be said that the aspectual marker {P₂} basically indicates temporal 'durativeness' in the Arabic tense system.

In the analysis of aspect in Chapter Three, it was made clear that the non-earlier temporal field of {P₂} could be formally subdivided into simultaneity and lateness. The former was said to be indicated by {P₂Ø} and the latter by {P₂+}. It thus appears that the simultaneity of {P₂Ø} represents nothing but a more specific temporal segment of the comprehensive non-earlierness of {P₂}. In other words, the marker {P₂} can also indicate simultaneity, being the temporally non-marked member of the contrast of non-earlier with simultaneous. This may explain the general close temporal relationship between participles on the one hand

and the non-earlier simple verbids, on the other.¹⁴

More specifically, it may explain why Arabic can make use of both participles and non-earlier verbids in the indication of simultaneity,¹⁵ e.g.:

a. /kāna jālis fi lḥadīqa/

'(He) was sitting in the garden.'

b. /kāna yajlis fi lḥadīqa/

'(He) was sitt(ing) in the garden.'

The state of 'sitting' is said above to be simultaneous with a past time represented by /kāna/ in both sentences above. Yet, since the {P₂} in /yajlis/ has just been shown to be of a more durative nature than the {P₂Ø} of /jālis/, the second sentence above suggests a more frequent or durative state. In other words, the second sentence rather indicates a habitual action in the past which was frequently repeated, whereas the first merely indicates the simultaneity of a single occurrence of /jalas/ 'sat' with a past time. The same 'durativeness'

¹⁴ See Ibrāhīm Anīs who has^{also} pointed out this close temporal relationship in many quotations from the Holy Qurān as well as from other Arabic literary sources. (Anīs, pp. 298-299).

¹⁵ This, however, is not usually possible with the present tense, where, due to the lack of copulative 'be' in Arabic, participles do not occur as part of verbal clusters and consequently function as non-verbal. (see earlier on p. 523 for more details).

and frequency of {P₂} can be seen in the following typical Arabic sentences:

1. /kāna yaskun fi lbaṣra/
'(He) was liv(ing) at Basrah.'
2. /kāna yusāfir kathīran/
'(He) was travell(ing) a great deal.'
3. /sayakūnu yadrus fi lmaktaba/
'(He) will be study(ing) in the library.'

Sentences like the above do not indicate simultaneity as such, though that is certainly implied. Rather do they indicate 'durativeness' over a more extended temporal field. The use of participles to refer to singulary actions/states may explain why participles are not used in Arabic to indicate repetitive or frequent actions. For such actions/states, the non-past tense or the non-earlier aspect is used. Thus of the following two sentences, only the second is a normal Arabic sentence:

1. */kāna jālis fi lḥadiqa kulla yawm/
'(He) was sitting in the garden everyday.'
2. /kāna yajlis fi lḥadiqa kulla yawm/
'(He) was sitt(ing) in the garden everyday.'

The above-mentioned distinction between sentences (a) and (b) on the previous page is, however, neutralized when a temporal adverbial of simultaneity is added to those sentences. The extended non-earlier temporal

field of sentence (b) can be narrowed and specified in two ways: (1) by replacing $\{P_2\}$ by $\{P_2\emptyset\}$ for simultaneity or $\{P_2+\}$ for lateness, or (2) by adding specifying temporal adverbials to $\{P_2\}$. Thus to specify simultaneity in Arabic, $\{P_2\emptyset\}$ may be used in the form of a participle, as in sentence (a) above. Or, it can be done by adding specific temporal adverbials of simultaneity to $\{P_2\}$ of sentence (b) above, as seen in the following sentence:

/kāna yajlis fi lḥadiqa 9indamā waṣaltu/

'(He) was sitt(ing) in the garden when I arrived.'

The temporal adverbial /9indamā waṣaltu/ functions as a specifier for $\{P_2\}$ and helps to narrow its temporal reference down to make it indicate a single case of simultaneity like $\{P_2\emptyset\}$, rather than indicate its original reference of a repeated and a durative action/state. To use such temporal adverbials as the above with $\{P_2\emptyset\}$ would be redundant, though still linguistically permissible and in fact quite common in Arabic, since $\{P_2\emptyset\}$ already indicates a single case of simultaneity on its own.¹⁶ The use of temporal adverbials, especially in cases such as the sentences

¹⁶ This kind of redundancy seems in fact to be almost required in sentences such as Sentence (a) on page 529 since a sentence with $\{P_2\emptyset\}$ would sound incomplete without either an explicit or an implicit adverbial of time, usually in the form of a clause which indicates an action/state that is simultaneous with $\{P_2\emptyset\}$.

just given above, seems to play a major role in the overall structure of Arabic tense and the present study would thus certainly be incomplete without incorporating temporal adverbials as one of the basic factors in determining temporality in Arabic.¹⁷

With certain verbs in Arabic like /katab/ 'wrote', /qara?/ 'read', /ʕamil/ 'worked', etc., active participles have mainly come to be used in non-verbal positions and functions, viz. either nominally or adjectivally. Such verbs have previously been said to be telic and usually appear as part of bounded predications whose validity depends on the realization of a certain goal.¹⁸ Now participles like /qāri?/ or /kātib/ are usually found in Arabic used in nominal positions in the sense of 'reader' and 'writer', respectively. Consequently, it is rather rare in Arabic to come across such participles used verbally. Perhaps the most clear-cut verbal function of participles of such verbs is found when they are used transitively in situations like the following:¹⁹

1. /kāna kātib darsah/

'(He) had been writing the lesson.'

¹⁷ See Chapter Six for an analysis of temporal adverbials in Arabic.

¹⁸ See pp. 516 - 517 for a more detailed discussion of this point.

¹⁹ Even here, however, the simultaneity of such participles is different from that indicated by participles of atelic verbs. See pages 517 - 518 for a discussion of this difference.

2. /kāna qārī? lkitāb/

'(He) had been reading the book.'

In most other linguistic situations, participles of a telic nature, like the ones mentioned above, would function nominally or, sometimes, adjectivally. Such participles of telic verbs, like the three underlined ones below, would typically appear in nominal positions as in the following sentences:

1. /kāna salīm kātīb 9azīm/

'Salīm was a great writer.'

2. /kāna salīm qārī? jayyid/

'Salīm was a good reader.'

3. /kāna salīm 9āmīl ?amīn/

'Salīm was an honest worker.'

Each of the above sentences is to be analyzed as originally derived from a kernel nominal sentence like:

/salīm kātīb 9azīm/,

'Salīm (is) a great writer'

for the first sentence. The kernel nominal sentences

may later be transformed into verbal ones by the
introduction of the verbalizer /kāna/. Conversely,
in a sentence like:

/kāna salīm nāʔim 9indamā waṣaltu/

'Salīm was sleeping when I arrived.'

the lexeme /kāna/ is not a verbalizer but a tense-carrier, as will be fully explained in Chapter Five. It is thus necessary to distinguish in Arabic between /kāna/ as a verbalizer and /kāna/ as a tense-carrier only. 20

To indicate simultaneity, medial simultaneity in particular, telic verbs can then only resort to the second alternative mentioned on page 531, viz. by adding temporal adverbials of simultaneity to the non-earlier aspectual marker {P₂}. In the following sentences, therefore, simultaneity is indicated by the non-earlier aspect plus the adverbials of simultaneity:

1. /kāna yaktub ʕindamā dakhaltu/
'(He) was writ(ing) when I arrived.'
2. /sayakūnu yaqraʔ fi dhālika lwaqt/
'(He) will (be) read(ing) at that time.'
3. /yakūnu yarsim kullamā ?azūruhu/
'(He) is draw(ing) whenever I visit him.'

210 ~~There is no similarity between the~~
~~distinction between a complete and an~~
~~incomplete, the incomplete~~

Even with verbs whose participles can indicate simultaneity, viz. atelic verbs, such as /mashā/ 'walked', /rakaḍa/ 'ran', etc., simultaneity, which is basically marked by {P₂Ø} in verb, can alternatively be indicated by the non-earlier morpheme {P₂} plus certain temporal adverbials. Thus the following sentences in each pair are alternative means of expressing simultaneity in Arabic:

1. (a) /kāna māshiyan (9indamā raʔayatuhu)/²¹
'(He) was walking when I saw him,'
(b) /kāna yamshi 9indamā raʔaytuḥu/
'(He) was walk(ing) when I saw him.'²²
2. (a) /kāna rākidan (9indamā qābaltuhu)/
'(He) was running when I met him.'
(b) /kāna yarkuḍ 9indamā qābaltuhu/
'(He) was runn(ing) when I met him.'

By way of conclusion, we may go back to the list of Arabic tenseemes on page 405 at the beginning of Chapter Two. The following four tenseemes can now be temporally analyzed in light of the above discussion on non-earlierness as follows:

1. /yakūnu yaf9al/

= Non-Past + Non-Earlier

(i.e. 'Durativeness' at Non-Past)

²¹ Bracketed words are optional, i.e. simultaneity is still understood without them.

²² English translation does not show the formal difference between the members of each pair in Arabic.

2. /kāna yaf9a1/
= Past + Non-Earlier
(i.e. 'Durativeness' at Past)
3. /sayakūnu yaf9a1/
= Non-past + Later + Non-earlier
(i.e. 'Durativeness' at Future)
4. /kāna sayakūnu yaf9a1/
= Past + Later + Non-earlier
(i.e. 'Durativeness' at Future-in-Past)

Thus all the twenty Arabic tenseemes listed on page 405 have been temporally analyzed and accounted for in the discussions presented thus far in Chapters Three and Four.

(E) Shiftings in Arabic Tenseemes

A given tenseme is here said to be shifted when, for special purposes and in special situations, its tense and/or aspect marker cease(s) to indicate its/their characteristic temporal value. A tenseme which is formally marked by the past-tense marker, for example, is shifted when used in a linguistic situation that normally requires the presence of a non-past tenseme. Such shiftings, it must be emphasized, are both limited and known in any language. Without this limitation and the tacit agreement of the speakers of a given language, such shiftings would produce nothing short of chaos in the tense system of that language. Such limited

shiftings, however, are allowed in many languages to indicate special non-temporal values, such as doubt, probability, truth, etc.

Shiftings of tenseemes can be of two types in Arabic depending on the direction of the shift. These are: (a) back-shiftings and (b) front-shiftings. A given tenseme is back-shifted if it appears in a place normally assumed by a tenseme which refers to a time later than that of that given tenseme in the general distribution of tenseemes. For this purpose, the temporal locations of tenseemes as indicated on the general temporal chart of Arabic tense shown on page 512 are considered as the norm. The basic-past tenseme /jāʔa/ 'came', for instance, is back-shifted in the following sentence:

/ʔidhā jāʔa ghadan ʔadhhabu maʔahu/

'If (he) came tomorrow I (would) go with him.'

Normally, to refer to the future Arabic uses either a basic-present tenseme with a future temporal adverbial or it uses a specifically later-present tenseme. For the special purpose of expressing a condition, however, Arabic uses a basic-past tenseme to refer to futurity in the above sentence. Thus the temporal marker {D₁} in /jāʔa/ does not indicate its basic and expected temporal value here. Rather, it assumes here the

temporal significance of $\{P_1\}$ alone or with $\{P_2+\}$. Since the pastness of $\{D_1\}$ in $/j\bar{a}ʔa/$ is earlier in time than both the presentness or the futurity of $\{P_1\}$ or of $\{P_1\} + \{P_2+\}$, respectively, this use of $\{D_1\}$ here is said to be a case of back-shifting.

The conditional sentence just mentioned above reveals a basic feature of all shifted tenseemes in Arabic; namely, the unusual linguistic environments in which they occur. A past tenseeme like $/j\bar{a}ʔa/$ 'came' is not found associated with a future temporal adverbial like $/ghadan/$ 'tomorrow' in normal linguistic contexts. The unexpected co-occurrence here is thus a major clue to the abnormal and special use of $/j\bar{a}ʔa/$. Clues given by similar unusual co-occurrences are quite common in shifted tenseemes in general.

Tenseemes, as has already been demonstrated in Chapter Three, assume their basic temporal locations by means of tense markers and/or aspect markers. Consequently, shiftings in tenseemes are of three kinds also, viz. shiftings in tense markers, shiftings in aspectual markers, or shiftings in both aspect and tense markers. The first variety of shiftings occurs when the shifted tenseeme belongs to a tense different from the tense of the expected tenseeme, as in the example of the conditional sentence given earlier. Aspectual

shiftings are brought about by shiftings among the member tenses within either tense in Arabic. An earlier-past tense, for example, may be used in environments that would normally call for the basic-past tense to indicate a special purpose, as will be shown later in this section. Mixed shiftings, i.e. of both aspect and tense, are the product of combining both of the above two varieties of shifting.

Shiftings are analyzed and discussed below mainly in terms of their direction, viz. backward versus forward shiftings. The distinction between tense and aspect shiftings are made and dealt with within the above-mentioned major binary classification of shiftings into backward and forward ones. The following is a survey of the various linguistic situations that require shiftings in Arabic and the different kinds of shifting found in them:

1. Back-Shiftings

Back-shifted tenses are more frequent in Arabic than front-shifted ones. Speakers of Arabic use such backward shiftings for various non-temporal purposes, such as the following:

1.1 . Back-Shifting to Express Wishes and Prayers

One of the major uses of back-shifting in Arabic is to colour some utterances with an optative force.

This is mainly found in expressing wishes, prayers, or curses. In all such cases, and many others, back-shifting is achieved by a shift in tense markers from the expected present-tense marker to the shifted past-tense marker. Examples of such wishes and prayers are the following:

1. /bāraka llāhu fīka/

'May God bless you!'²³

2. /raḥimahu llāh/

'May God have mercy on him!'

(usually said on mentioning a dead person)

3. /raḍiya llāhu ʔanhu/

'May God be pleased with him!'

(said on mentioning one of the close friends or relatives of the Prophet)

4. /ṣalla llāhu ʔalayhi waṣallam/

'May God bless him and give (him) peace!'

(said on mentioning the Prophet)

In the above four sentences, the basic-past tense markers /bāraka/, /raḥima/, /raḍiya/ and /ṣallā/ do not indicate their normal past-time reference. They rather indicate 'all time' or 'non-pastness', a function normally performed by a basic-present tense marker. In the light

²³ Notice that the English translations are not representative in these sentences as English does not use past tense markers in such situations.

of the above, therefore, the four basic-past tenses are considered as back-shifted in the above four sentences.

Back-shifting used for curses can be used in both affirmative and negative sentences in Arabic. The former is found in such sentences as:

/laʔanahu llāh/

'May God curse him!'

The latter is achieved by negating the optative by the lexeme /lā/, e.g. :

1. /lā bāraka llāu fīhi/

'May God not bless him!'

2. /lā raʔat khayran fi ḥayātihā/

'May she not see any good in her life!'

1.2 Back-Shifting in Asseverative Utterances

In asseverative utterances, the action indicated by the verb is considered realized at the moment of the utterance itself.²⁴ Such utterances are mainly used in promises, bargains, or marriage ceremonies as if to lay assurance and certainty on the immediate realization of the promise made. Here again the shifting in Arabic is one of tense markers: a past-tense marker is used to assume the temporal

²⁴ See page 196 for more details.

value of the present-tense marker in referring to the present and/or the future.²⁵

Asseverative utterances in Arabic are found in a few linguistic situations as exemplified in the following sentences, for example:

1. /bi9tuka ddār/

'I sell you the house.'²⁶

2. /zawwajtuka hādhihi lmarʔa/

'I marry this woman to you.'

3. /qabiltu/

'I agree'

In the three sentences above, the basic-past tenses /bi9tuka/, /zawwajtuka/, and /qabiltu/ are all back-shifted tenses replacing the expected basic-present or the later-present forms of the same verbs. (The first and the third asseverative sentences above are often heard in bargains.)

1.3 Back-Shifting in Negation

Negation offers a major linguistic phenomenon where tenses behave 'abnormally' in Arabic. The

²⁵ It may be mentioned here that simple non-past tenses are also used sometimes in an asseverative sense, e.g. /ʔaʔiduka/ 'I promise you'. This, however, does not affect the above discussion since there are still many cases where the basic-past tense is used for this purpose.

²⁶ English uses the basic-present tenses in such cases. Thus the English translation is not really representative here.

characteristic temporal value of Arabic tenses seem generally to shift, usually to that of the opposite tense, when they are associated with a negative particle. Professor G.R. Driver points out that this phenomenon is also found in most other Semitic languages and says that it is the result of a long process of change in the tense system of these languages which "was not uniformly carried out ... Especially where the verbal form was closely connected with a particle..." (Driver, p.14). So, according to Driver's explanation it was the negative particle that was responsible for this lack of correspondence between forms and functions in Arabic negated tenses.

One of the apparent anomalies in the behaviour of negated tenses in Arabic can be explained as a case of back-shifting. This time, however, it is a shift of an aspectual nature since instead of the expected later-present tense a basic-present tense is used to indicate futurity without the obligatory use of a temporal adverbial of futurity as the case usually is in such circumstances. Thus all the occurrences of the basic-present tenses in the following sentences are back-shifted:

1. /lan yaktuba/ ²⁷

²⁷ Notice that all the basic-present tenses negated by /lan/ occur in their subjunctive mood in Arabic. See Part One for definition of moods in Arabic.

'(He will) not write.'

2. /lan yusāfira (ghadan)/²⁸

'(He will) not travel tomorrow.'

3. /lan ʔadhaba maʔakum/

'(I will) not go with you.'

1.4 Back-Shifting in Conditional Sentences

Probably the most noticeable feature of conditional sentences in Arabic is the frequent shiftings in their tenses. Broadly speaking, Arabic conditional sentences are of two main types; (a) those in which the condition is fulfillable and (b) those in which the condition is no longer fulfillable and the proposition is therefore only hypothetical. The first type of conditional sentences is introduced either by the particle /ʔin/ or by the particle /ʔidhā/, whereas hypothetical conditional sentences are introduced by /law/ in Arabic.²⁹ Shifted tenses may occur both in the conditional clause and in the main clause of a conditional sentence. These shiftings, moreover, may be tense-shiftings or aspectual shiftings or both.

To indicate futurity, the participle /ʔidhā/ 'if' may occur in sentences like the following in Arabic.³⁰

²⁸ The bracketed temporal adverbial is optional here.

²⁹ Notice that all three Arabic particles can only be translated by 'if' in English.

³⁰ The English translation in these three sentences does not indicate the Arabic tenses' shiftings.

1. /ʔidhā jāʔa dhahabtu maʔahu/

'If he comes, I shall go with him.'

2. /ʔidhā jāʔa ʔadhhabu maʔahu/

'If he comes, I shall go with him.'

3. /ʔidhā jāʔa ʔadhhab maʔahu/

'If he comes, I shall go with him.'

It may be noticed from the above three sentences that the verb in the conditional clauses after /ʔidhā/ is invariably a basic-past tense³¹ whereas in the main clauses it may be a basic-past as in the first sentence or a basic-present as in the last two.³¹ In all three sentences, however, the six tenses are back-shifted since futurity is usually indicated in Arabic by a later-present tense. Yet, in all cases of basic-past tenses this backward shifting is achieved through a shift in the tense marker from the expected {P₁} of the present tense to the shifted {D₁} of the past tense. In the two cases of /ʔadhhabu/ and /ʔadhhab/ in the main clauses of sentences 2 and 3 above, on the other hand, the shift is aspectual, as these shifted tenses are also marked by {P₁} like the expected ones. The aspectual marker of lateness {P₂+} of the expected tense is, however, omitted in the shifted tenses.

³¹ Notice that in the third sentence, the main-clause verb is in the jussive mood, though still a simple-present.

Thus in sentences 2 and 3 above, we have a case of a mixed backward shifting since the shift is in tense in the conditional clause while it is in aspect in the two main clauses.

The particle /ʔidhā/ 'if' can also be used with conditional sentences to indicate pastness in sentences like the following one:

/kāna ʔidhā jāʔa dhahabtu maʕahu/

(If (ever he) came (I) went with him.)

'Whenever he came, I went with him.'

It is obvious that the verb in the main clause in the sentence above, viz. /dhahabtu/ '(I) went', is not shifted since it indicates its basic value of pastness as a basic-past tense here. The verb in the conditional clause is shifted, however, since it is an earlier-past tense replacing the normally-expected basic-past tense in the indication of pastness. This again is a case of a backward shift in aspectual markers since both the shifted tense /kāna jāʔa/ and the expected /jāʔa/ belong to the past tense and are consequently both marked by the same tense marker, viz. {D₁}.

The particle /ʔin/ 'if' can also be used in Arabic to introduce conditional sentences which indicate futurity. Such sentences can be of various patterns, e.g.:³²

³² Notice again that the English translation is unable to show the formal variations of tenses in the four Arabic sentences above.

1. /ʔin tadrus tanjah/

'If you study you will succeed.'

2. /ʔin darasta najahta/

'If you study you will succeed.'

3. /ʔin tadrus najahta/

'If you study you will succeed.'

4. /ʔin darasta tanjah/

'If you study you will succeed.'

Both tenseemes in sentence 1 above are formally basic-present tenseemes used to indicate futurity.³³ They are back-shifted, as a later-present tenseeme is normally used to indicate futurity in Arabic. Since both the shifted and the expected tenseemes belong to the present tense, the shift is brought about in sentence 1 above by a shift in aspectual markers. In sentence 2, on the other hand, the picture is different. The two shifted tenseemes /darasta/ and /najahta/ are basic-past tenseemes and belong to a tense different from that of the expected later-present tenseemes. Thus, sentence 2 above provides two examples of tense back-shifting in Arabic. In each of sentences 3 and 4, one tenseeme is basic past while the other is basic present. Though both are back-shifted, the two basic-past tenseemes, viz. /najahta/

³³ All simple-present tenseemes appear in the jussive mood in conditional sentences after /ʔin/ 'if'.

in sentence 3 and /darasta/ in sentence 4, are examples of tense back-shifting. The other two tenseemes are aspectually back-shifted.

Like /ʔidhā/, the particle /ʔin/ 'if' can introduce conditional sentences which refer to a past time. The following sentence is representative of such past conditional sentences:

/ʔin kāna (qad) dhahab faqad nadim/

'If he had gone, he would have become sorry.'

The main clause tenseeme /nadim/ is not shifted since it is used here according to its characteristic temporal location on the general temporal chart. The conditional clause tenseeme /kāna dhahab/ 'had gone' is, however, back-shifted as it is assuming the temporal value of a simple-past tenseeme. Since both the earlier-past /kāna dhahab/ and the expected basic-past are marked by the same tense marker {D₁}, this is again a case of aspectual back-shifting in Arabic.

It has already been said above that the particle /law/ 'if' introduces unfulfillable or hypothetical conditional sentences in Arabic. Typically, /law/ appears in sentences like the following referring to an imaginary condition in the past:

1. /law kāna jāʔa laʔakramtuhu/

'If he had come I (would have) honoured him.'

2. /law jāʔa lakuntu ʔakramtuhu/

'If he (had) come I would have honoured him.'

It is clear from the above two sentences that a conditional sentence with /law/ invariably has one tense in the basic past. It is also clear that either tense in such hypothetical conditional sentences can take the form of the earlier past. From what has already been said about previous sentences, it can easily be seen that the tense appearing in its basic-past form in both sentences above is not shifted; as both sentences have a past-time reference. The other two tenses, however, i.e. /kāna jāʔa/ in sentence (1) and /lakuntu ʔakramtuhu/ in sentence 2 are back-shifted. Their back-shifting is achieved aspectually in both sentences.

2. Front Shiftings

Front shiftings are less common in Arabic than back-shiftings. They mainly appear in the following linguistic environments:

2.1 Front-Shifting for Negation

As has already been stated, Arabic tenses usually lose their characteristic temporal values when associated with negative particles. Driver gives this phenomenon the name of 'Polarity' and says, as has been mentioned earlier, that it is not uncommon in other Semitic languages where it led to the use of the opposite tenses in negative to those used in affirmative

statements" (Driver, p.19).

One common way of negating the occurrence of a past action in Arabic is by using the negator /lam/ 'not'. Thus the following are typical negative sentences that have a past-time reference:

1. /lam yaktub darsah'/
'(He did) not write his lesson.'
2. /lam yusāfir bilʔams/
'(He did) not travel yesterday.'
3. /lam yaḥḍari lʔijtimāʔ/
'(He did) not attend the meeting.'

The three basic-present tenseemes /yaktub/, /yusāfir/ and /yaḥḍar/ are used above in the jussive mood associated with the particle /lam/ to refer to pastness. Referring specifically to pastness is not a basic function of basic-present tenseemes. The three above-mentioned tenseemes are therefore shifted. All three tenseemes represent forward-shifting since their tense marker {P₁} appears nearer to the future on the temporal chart than the tense marker {D₁} of the expected tenseemes. It is also a case of tense, rather than aspectual shift, as the expected and the shifted tenseemes belong to two different tenses.

2.2 Front-Shifting for 'Vividness'

Novelists and dramatists often make use of this

variety of tense shifting to add 'vividness' to their narrations. In such cases, a basic-present tense is usually used in narrating incidents that took place in the past, so as to make these incidents sound more 'recent' and 'real' and thus make the reader more involved. A typical example is something like the following:

/kāna kullu shay? hādī? fi lghurfa lmuzlīma washāʾartu
bilkhawf . wafaj? a yanfatih lbāh wayahjin rajul
fi ddākhil/

'Everything was quiet in the dark room and I was frightened. Suddenly, the door opens and a man storms inside.'

In the above passage, a past incident is reported and the basic-present tenses /yanfatih/ '(it) opens' and /yahjin/ '(he) storms' are used. The above two tenses are forward-shifted by a change of tense-markers to add vividness to the details of the above incident.

(F) Sequence of Tenses

The question under discussion here is the form and the temporal reference that tenses assume when appearing in a sequence rather than independently. By the very nature of the problem dealt with here, sentences that contain only independent verbs, one or more, are excluded from the following discussion. Such sentences are often called simple and compound sentences,

respectively. These are not dealt with here since their tenseemes do not form sequences in the sense used here. A sequence of tenseemes is defined here as a succession of more than one tenseeme in a sentence which contains one or more constructions that are syntactically dependent on another construction. Only the sequence of tenseemes in complex sentences thus seems to satisfy this criterion of 'sequence' of tenseemes. Other successions of tenseemes are not to be considered each as a whole unit but as consisting of independent tenseemes that are formally and temporally analyzable according to the general rules of the tense system in Arabic presented so far.

1. The Permanence of the Point of Reference

It has already been said that there are only two formally identifiable points of reference in Arabic: a past point of reference indicated by $\{D_1\}$ and a present point indicated by $\{P_1\}$. Any tenseeme, it has also been said, must be marked for orientation to either of the two points of reference above, but never to both of them simultaneously. Moreover, all the tenseemes of either tense in Arabic are similarly marked for the same point of reference. It is observable that, in general, the tenseemes of a given complex sentence in Arabic are all formally and temporally treated as belonging to

the same tense.³⁴ In other words, in a sequence of tenseemes, all the member tenseemes are to be formally marked either by $\{P_1\}$ or by $\{D_1\}$, but usually not by both in any one sequence. Besides, the relative temporal locations of the actions indicated by tenseemes to each other are determined by the aspectual markers $\{D_2\}$, $\{P_2\}$, $\{P_2\emptyset\}$, and $\{P_2+\}$. Thus $\{D_2\}$ would indicate a temporal location earlier in relation to either point of reference in Arabic; $\{P_2\}$ a time non-earlier or neutral; $\{P_2\emptyset\}$ a time simultaneous with the given point of reference; $\{P_2+\}$ a later temporal location. In simple tenseemes, the absence of an aspectual marker also indicates sameness or simultaneity with a point of reference. From the above, it can be concluded here that the point of reference is permanent, i.e. the same, for all the tenseemes of any one sequence in a complex sentence in Arabic. This conclusion is in line with the basic assumptions made so far in this study.

To demonstrate the principle of the permanence of the point of reference in Arabic tenseemes, a number of common sequences of tenseemes will be analyzed.³⁵

³⁴ Some exceptions to this generalization will be discussed later. These exceptions, however, are easily explicable and do not therefore affect the plausibility of the statement made here.

³⁵ The principle of the permanence of the point of reference was first suggested and applied to English by Reichenbach. See Reichenbach, Elements of Symbolic Logic.

For the sake of this analysis, the following symbols will be made use of here: E = event, D₁ = past point of reference, P₁ = present point of reference. The relative temporal location of E to either D₁ or P₁ is marked by its position in the following formulas either before, at, or after them. In other words, a tenseme like /kāna sāfar/ 'had travelled', for example, is symbolically represented as follows:

$$E - D_1$$

to indicate that the event of 'travelling', E, had taken place before a point in the past, D₁. Conversely, the tenseme /kāna sayusāfir/ 'would travel' would be represented as follows:

$$D_1 - E$$

since the event was to take place after a past point of time.

To use the above analytical technique for testing the permanence of reference in a complex sentence like

/qaḍā ḥayātaḥu kamā kāna qaḍāhā ʔajdāduhu/

'(He) spent his life as his ancestors had spent theirs.' would give us the following analysis:

$$D_1, E_1$$

$$E_2 - D_1$$

The symbol (E₁) refers to Event One, i.e. the first verb in the sentence above which is /qaḍā/. This is a basic-past tenseme that took place at a point in the

past. In such cases, the event corresponds to the point of reference. The second event, however, is formally marked both for reference to a past point of time by {D₁} and for earliness with respect to this point of reference by {D₂}. Thus E₂ precedes D₁ in the second formula above. It is important to notice that both tenseemes above have the same point of reference. In other words, the principle of the permanence of the point of reference is maintained in the above sentence.

It might be argued, however, that a sentence like

/qaḍā ḥayātaḥ kanā qaḍāhā ʔajdāduhu min qablu/

'(He) spent his life as his ancestors spent theirs before'

still indicates the earliness of the second event in relation to the first without the presence of the earlier-aspect marker {D₂}. This would, it might be thought, undermine the temporal relativity of tenseemes in relation to a point of reference. It has already been said, however, that temporal adverbials play an integral part in the Arabic tense system; and it is the temporal adverbial /min qablu/ 'before' in the above sentence that indicates the relation of earliness normally indicated by {D₂} in verbs. The role of the temporal adverbial becomes clear in the above sentence if it is deleted. Without it the temporal location of both tenseemes would correspond to a point in

the past and no earlierness would be indicated.³⁶ This can be seen in sentences like the following:

1. /najaha salīm karā kānat laylā qad najahat/
'Salīm succeeded as Layla had.'
2. /najaha salīm kamā najahat laylā min qablu/
'Salīm succeeded as Layla did before.'
3. /najaha salīm kamā najahat laylā/
'Salīm succeeded as Layla did.'

In the first sentence above, the earlierness of E_2 in relation to E_1 is formally indicated by the aspectual marker $\{D_2\}$ in the verbid /najahat/, whereas in the second sentence it is formally indicated by the temporal adverbial /min qablu/ 'before'. In the third sentence, no earlier marker or adverbial is used at all. Thus the first two sentences above are analyzable as:

D_1, E_1

$E_2 \quad - \quad D_1$

while the third is to be analyzed as:

D_1, E_1

D_1, E_2

The last analysis above also applies to sentences like the following:

1. /dhahabtu li?annahu kāna nā?im/
'I left because he was sleeping.'

³⁶In this sentence in particular, however, the word 'ancestors' may still suggest earlierness even without $\{D_2\}$ or the temporal adverbial /min qablu/.

2. /ṣallaḥtu lkāmira liʔannahā kānat maksūra/

'I repaired the camera because it was broken.'

Both tensems in either sentence above refer to the same time as that of the point of reference. The first in either sentence does so as it has no relational aspectual marker at all. The second, however, is aspectually marked by {P₂Ø} in the two participles above. This aspectual marker, as has been said before, indicates nothing but simultaneity with a point of reference.

To indicate lateness with respect to a point of reference, Arabic uses the aspectual marker {P₂+} which is formally realized by either of the two mutually exclusive lexemes /sa-/ or /sawfa/ plus a pronominal prefix.³⁷ In the following sentence,

/huwa yaqraʔ kathīran liʔannahu sayadkhulu lʔimtiḥān/

'He (is) read(ing) a lot as he will sit for the examination',

The second tenseme is to take place at a time later than the point of reference. This is formally indicated by {P₂+} in /sa-/ plus the immediately following pronominal prefix. The action of the initial tenseme, on the other hand, is shown to take place at the same time as

³⁷ Notice, however, the special case of later-past discussed in the next sub-section on 'Broken Sequence'.

the point of reference, i.e. at a non-past or present point. The point of reference for both tenseemes is permanent as can be seen from the following symbolic analysis of the sentence above:

1. P_1, E_1
 $P_1 \quad - \quad E_2$

2. Broken Sequence

The principle of the permanence of the point of reference discussed above is not without a few exceptions in Arabic, as has already been said. Perhaps the major exception lies in cases of shiftings that have been analyzed in a previous section. It was said then that in certain linguistic situations, tenseemes are shifted either backwards or forwards for specific non-temporal purposes. Such cases of shiftings are exceptional and consequently the point of reference is not formally permanent in sentences with shifted tenseemes.

Another case of broken sequence is found when a reference to earlier-present is made. It has already been said that Arabic does not have a formally and temporally distinctive earlier-present tenseeme like the English one has done, for example. Arabic uses basic-past tenseemes to refer to earlier-present actions/states as well. Consequently, Arabic has sentences like the following one:

/ya9īshu lyawma kamā 9āsha ʔajdādūhu/

((He) lives today as his ancestors lived.)

in which the second tense is a basic-past tense formally oriented to a past point of reference whereas the first tense is a basic-present tense formally oriented to a present point of reference.

Broken sequence may also be found in Arabic when reference is made to an action intended for later-past. The following sentences are examples of such a case:

(1) /qāla biʔannahu sayaʔti/

((He) said that he will come)

'He said that he would come.'

(2) /nāma liʔannahu sayastayqiz mubakkiran fi
lyawmi ttāli/

((He) went to bed because he will wake up early
the next day)

'He went to bed because he would wake up early
the next day.'

(3) /ʔakhbartuhu biʔanni saʔusāfir/

((I) told him that I will travel)

'I told him that I would travel.'

In all the above three Arabic sentences the underlined later-present tenses are used to indicate actions intended for a later-past time instead of the normally expected later-past tenses /kāna sayaʔti/, /kāna sayastayqiz/, and /kuntu saʔusāfir/, respectively.

It is important to notice, however, that such cases of broken sequence are only permissible in Arabic when the intended past action referred to is indicated by a tense which syntactically occurs as part of a subordinate clause in a complex sentence. Thus, when intended past actions are not indicated by tenses in subordinate clauses, the predictable unshifted later-past tenses are used, as in the following sentence:

/kāna sayusāfir ba9da ʔan waṣalnā bilʔams/

'He would travel after we arrived yesterday.'

Later-past tenses can still be found within subordinate clauses in Arabic, but in all such cases they are used as back-shifted tenses to indicate hypotheticalness. The three sentences given above may thus be found in the following alternative versions to indicate hypothetical later-past actions, i.e. actions that were intended at later-past but which we know by now have not been achieved:

(1) /qāla biʔannahu kāna sayaʔti lawla lmaṭar/

((He) said that he would come but for the rain)

'He said that he would have come but for the rain.'

(2) /nāma liʔannahu kāna sayastayqiz mubakkiran fi

lyawmi ttāli walākinnaḥu taʔakhkhara fi nnawm/

((He) went to bed because he would wake up early the next day but he was late in sleeping)

'He went to bed because he would have woken up

early the next day but he slept late.

(3) -- /ʔakhbartuhu biʔanni kuntu saʔusāfir walākinni
ghayyartu raʔayī/

((I) told him that I would travel but I

changed my mind)

'I told him that I would have travelled but

I changed my mind.'

To indicate hypotheticalness with later-past actions which are not part of subordinate clauses, the later-past tenseemes which represent such actions are to be back-shifted to pre-later past tenseemes, as can be seen in the following sentence:

/kāna sayakūnu sāfar ba9da ʔan waʔalnā bilʔams lawlā
maradihi lmufāji?/

'(He) would have travelled after we arrived yesterday
but for his sudden illness.'

Incidentally, it may be interesting to point out that the cases of back-shifting for hypotheticalness mentioned above are the only instances of back-shifting in Arabic that do not result in breaking the sequence of tenseemes in their sentences.

Finally, there are certain syntactical restrictions that may impose certain modifications on the general rules of the sequence of tenseemes in Arabic and may thus produce some examples of broken sequence. Such syntactical restrictions are usually the result of the

presence of certain particles which select an invariable form of the tenseme they are associated with. Two examples of such cases of broken sequence may be seen in the following sentences:

1. /khābara qabla ?an ya?ti/

(He telephoned before he come)

'(He) telephoned before he came.'

2. /zārahā walākinnaḥu lam yajid-hā/

(He visited her but he not find her)

'(He) visited her but he didn't find her.'

In the first sentence above, it is clear that the events of both tensemes took place in the past. Yet, the second tenseme is formally a basic-present tenseme. This is because the directly preceding particle /?an/, preceded by /qabla/, is always followed by a tenseme in the non-past form in Arabic. The temporal value of /ya?ti/ is, however, understood from its relationship with the past tenseme /khābara/ and the temporal adverbial of earliness /qabla/. Still, this sentence represents a case of broken sequence since its two tensemes are formally marked to be oriented to two different points of reference. Similarly, the negative particle /lam/ is always followed in Arabic by a verb in the non-past form. Thus in the second sentence above, the co-occurrence of the past tenseme /zārahā/ makes the temporal reference of /yajid-hā/ unambiguously to the past.

Moreover, /lam/ in Arabic is only used to negate past actions, though it is always followed by non-past verbs. Whatever is the explanation, sentence (2) above represents another case of broken sequence that is imposed on the second tenseme due to its syntactic relationship with /lam/.

It is important to point out that all the cases of broken sequence mentioned above can be easily explained as part of sub-systems within the general patterns of sequence rules. Anyway, cases of broken sequence are but few compared to the numerous cases where the permanence of the point of reference holds true. Therefore, the presence of such apparent counter-examples should not obscure the useful descriptive generalization that may be made about the permanence of the point of reference in sequences of tensems in Arabic.

(G) Commands, Prohibitions, and Requests

1. Commands

Commands are indicated in Arabic by imperative verbs. Formally, imperative verbs are the same as the jussive mood of the basic non-past tenseme with the pronominal prefix omitted. A prosthetic short vowel is prefixed to the remaining non-past stem of the imperative when it begins with a consonant cluster. Thus an imperative verb in Arabic may take any of these

forms:

1. /ʔirji9/ 'bring back! '
2. /ʔuktub/ 'write! '
3. /tarjim/ 'translate! '

Temporally, the imperative verb is considered here to have the same temporal scope of the basic-present tense, i.e. it can refer to the whole non-past time field. In other words, imperative verbs are regarded as verbexes which are formally marked by the non-past tense marker $\{P_1\}$. Their only difference from the ordinary basic-present is that the empty aspectual markers of their surface structures are omitted.³⁸ Temporally, therefore, an imperative verb may be used to refer both to the present and to the future. To refer to either the present or to the future specifically, certain temporal adverbials are usually used with it. Thus, temporal adverbials can make an imperative verb specifically refer either to simultaneous present or to later present. This is because aspectual verbal markers of simultaneity and lateness, viz. $\{P_2\emptyset\}$ and $\{P_2+\}$, cannot be attached to imperative verbs. The following are typical sentences containing imperative verbs:

³⁸ It has already been pointed out in this chapter that aspectual markers are predictable in Arabic verbexes. Hence, their absence in imperative verbexes is temporally insignificant.

1. /ʔuktub darsak/

'Write your lesson!'

2. /ʔidhhab ghadan//

'Go tomorrow!'

3. /ta9āla lʔān/

'Come now!'

It may thus be concluded that both temporally and formally, imperative verbs do not constitute an independent verbal category in Arabic like the past and the non-past. They rather form a derivative from the basic-present tense with minor formal and temporal modifications. The formal modification is, as mentioned above, seen in the omission of the empty prefixes of the basic-present in the imperative. The temporal modification of the imperative, on the other hand, is the product of the linguistic situations in which it is used. Because commands cannot be made to apply to the past, imperative verbs cannot therefore refer to all time like the simple-present tense, i.e. they cannot include the past as well as the non-past in their temporal scope.

Lacking in aspectual markers, imperative verbs do not usually occur in non-initial positions in compound or complex tense in Arabic. Yet, Arabic can have an imperative in a second position in a verb sequence. In all such cases, however, the first verb in the

sequence must be an imperative also. For example:

1. /ʔidhhab ʔuktub darsak/

'Go, write your lesson!'

2. /ta9āl ʔiftah lbāb/

'Come, open the door!'

In such cases, however, the two imperative verbs do not form a single entity as is found in compound and complex tenseemes. A tenseme like /kāna yaktub/ 'was writing', for example, is one tenseme with only one tense marker. Whereas in each of the two sentences above, each of the imperative verbs is independently marked for tense and thus there are two simple tenseemes in each of the above two sentences instead of one compound tenseme in each. Formally, the unity of the two components of the compound tenseme /kāna yaktub/ above can be tested by the inability to insert any conjunction between these two components. The insertion of the conjunction /wa/ 'and' would yield the ungrammatical verbal cluster*/kāna wayaktub/. The insertion of /wa/ between the above two pairs of imperative verbs, on the other hand, would yield the following two grammatical sentences:

1. /ʔidhhab waktub darsak/

'Go and write your lesson.'

2. /ta9āla waftah lbāb/

'Come and open the door.'

2. Prohibitions:

A prohibition is only a negative command. Commands, as has been said above, are indicated in Arabic by imperative verbs. It is, however, an idiosyncrasy of Arabic that no negative particle can precede imperative verbs. Consequently, prohibitions are formed by placing negative particles before the second person form of the basic-present tense in the jussive mood, e.g.:

1. /lā tuḡayyī9 waqtak/

'Don't waste your time!'

2. /lā tadhhab/

'Don't go!'

The prohibition may be strengthened by adding the suffix /-an/ or /-anna/ to the jussive verbal base, e.g.:

1. /lā tuḡayyī9anna waqtak/

'Do not waste your time!'

2. /lā tadhhaban/

'Do not go!'

As non-past verbs, tenseemes like the above appearing in prohibitions have a similar temporal distribution to that of the basic-present tense.

3. Requests and Mild Commands

In such cases as mild commands, requests and courteous inquiry, Arabic sometimes makes use of, what

may be called, the 'polite' use of the basic-present tense instead of the imperative.³⁹ The basic-present tense again appears in the jussive mood in such cases. Examples are the following:

1. /yatafaddal ʔarraʔis bitawzi9i jjawāʔiz/

'Would the President please hand the prizes out.'

2. /yaqifu jjamī9 daqīqa wāhida/

'Would everybody stand up for one minute, please.'

Temporally, this use of the basic-present is similar to its use in commands. The contexts it is used in may, however, stress its temporal value of simultaneity or near-future more than anything else.

(H) Special Verbs

1. Modal Verbs:

There are a number of verbs in Arabic that occur only before non-earlier verbs in verbal clusters. The commonest of these verbs are /ja9al/ 'made', /ʔakhadh/ 'took', and /badaʔ/ 'began'. In such cases, these verbs invariably have the meaning of 'began', as in the following sentences:

1. /badaʔ yatakallam bihudūʔ/

'(He) began (to) talk quietly.'

2. /ja9al yaḏhak/

'(He) began (to) laugh.'

3. /ʔakhadh yaṣrah/

'(He) began (to) scream.'

³⁹ Compare the use of past tenses for the same purpose in English. See page 131.

Such verbs are considered here as modal since they appear initially in verbal clusters and function as tense-carriers to the clusters they introduce in the same manner as modals like will, shall, must, may, etc. function in English as tense-carriers while colouring the verbal clusters they introduce with a semantic value of one sort or another. Likewise, all the above-mentioned Arabic modal verbs retain a common semantic function of some sort, viz. that of 'beginning', in addition to their function of indicating tense and are invariably followed by the non-earlier aspectual verbal forms. Thus a verbal cluster like /ʔakhadh yaḍhak/ 'began (to) laugh' is considered as consisting of a single compound tenseme. This unity of the modal /ʔakhadh/ with the following verbid /yaḍhak/, for example, can be testified by the above-mentioned test of the conjunction /wa/ 'and'.⁴⁰ The close syntactic link between the components of all compound and complex tenseemes makes it incorrect to interpose /wa/ anywhere between them. The verbal cluster */ʔakhadh wayaḍhak/ is consequently ungrammatical. All the three above sentences, therefore, possess compound tenseemes that are temporally analyzable as:

Pastness {D₁} + Non-earlierness {P₂}

⁴⁰ See page 566.

(i.e. indicating duration and repetition in the past)

Syntactically similar to the above-mentioned three compound tenseemes are verbal clusters like /dakhal yaḏḥak/ '(He) entered (to) laugh/laughing.', /kharaj yabki/ '(He) went out (to) weep/weeping.', etc. In these verbal clusters, the initial component again functions as a tense-carrier and the second one as an aspectual verbid. It is, however, common to find the first component of such verbal clusters as the above followed by active participles, i.e. by the simultaneous aspectual verbal forms, as in:

1. /dakhal ḏāḥik/
'(He) came in laughing.'
2. /kharaj mubtasim/
'(He) went out smiling.'

Temporally, such compound tenseemes as the above are analyzed here as follows:

1. /dakhal yaḏḥak/
= Past time {D₁} + Non-earlier Duration {P₂}
2. /kharaj mubtasim/
= Past time {D₁} + Simultaneity {P₂Ø}

2. The Verb /kāna/ and Its Sisters

As an independent verb, /kāna/ may be used in two different ways in Arabic: The first is to use it as a verbalizer, or as a copula, in originally nominal

sentences. This use is found in such sentences where /kāna/ is called the 'Incomplete /kāna/':⁴¹

1. /huwa kān mudarris/

'He was a teacher.'

2. /kānat hiya fi lbayt/ 'She was at home.'

Though less common in Arabic, /kāna/ as an independent verb may secondly be used as a 'Complete (tamma) /kāna/' where it does not need a predicate. In such situations it is used as an independent verb where it forms a complete sentence with its subject alone.

This use may be seen in sentences like:

1. /kun fa yakūn/

'Be, and it is.' (a well-known Qurānic sentence)

2. /wakānati lḥarb/

'(And) the war broke out.'

More commonly, however, /kāna/ is used in Arabic as an auxiliary verb. In such uses, it always appears initially in verbal clusters and, just like in the above uses, it can be fully inflected for tense. In its auxiliary use, however, /kāna/ has no lexical meaning and is merely used as a grammatical tense-carrier. This last use of /kāna/ may be demonstrated in such sentences as the following:

1. /kānat lbintu taktub/

..... 'The girl was writ(ing).'

⁴¹ /kāna/ is called incomplete (nāqīṣa) by Arab grammarians in such sentences because it and its subject would be incomplete without a predicate.

2. /huwa kāna qad sāfar min qablu/

'He had already travelled.'

3. /kāna rākīd 9indamā qābaltuhu/

'(He) was running when (I) met him.'

In all uses of /kāna/ that have been mentioned so far in this section, it is used as a verbex. /kāna/, however, may also be used as a verbid in Arabic when it occurs non-initially in verbal clusters. The independent full verb /kāna/ 'existed' occurs as a verbid in sentences like the following one:

/kāna sayakūn fi lbayti/

'(He) was to be in the house.'

The auxiliary /kāna/ may also appear as an aspectual verbid in sentences like the following:

/kāna sayakūn sāfar lawla lḥarb.'

'(He) would have travelled but for the war.'

There exist in Arabic a number of verbs that behave similarly to the 'Incomplete /kāna/', mentioned above, in that these verbs always take a predicate. Because of this similarity in the syntactic behaviour with /kāna/, these verbs are traditionally called by Arab grammarians as the 'Sisters of /kāna/'. The following are some common verbs in this category; they all mean 'became' : /ṣāra/. /ʔaṣbaḥa/; /ʔaḍḥā/, /ʔamsā/ and /bāta/. The following two are

also common: /laysa/ '(he) is not' and /mā zāla/ '(he) has not ceased to be, still is'.

Though some of the above-mentioned verbs do have non-past verbal forms, these are rarely used in Arabic and these verbs are mostly found in their basic-past forms. Owing to the absence of an effective contrast with a non-past form, the past forms of these verbs have generally lost their past-time reference and have come to refer to non-past or to present. The following are some representative sentences of some of them:

1. /laysa rrajul karīm/

'The man is not generous.'

2. /mā zāla lmaṭar yanzil/

'Rain is still falling.'

3. /ʔaṣbaḥa jjawwu bārid/

'The weather has become cold.'

4. /ṣāra lmāʔ thaljan/

'The water has become ice.'

3. Uninflected Verbs:

Arabic has a number of uninflected verbs. These always occur in the simple-past form and are not known to have a contrastive simple-present form. For this very reason, their past forms have also lost their characteristic past-time reference and have come to be

used to refer to non-past and present, just like the Sisters of /kāna/ mentioned earlier.

The commonest examples of such verbs are the verbs of praise and blame /ni9ma/ 'to be good' and /bi?sa/ 'to be bad', respectively. These are used in sentences like the following in Arabic:

1. /ni9ma lawalad nabīl/

'Nabīl is a good son.'

2. /bi?sa rrajulu lkādhīb/

'The liar is a bad man.'

Other common verbs of this category are the 'Verb of Expectation' /9asā/ 'hope' and the other two verbs of praise and blame /ḥabbadhā/ 'be good' and /lā ḥabbadhā/ 'be bad', respectively. Other verbs of this category are not so common and need not, therefore, be mentioned here.

CHAPTER FIVE
A TRANSFORMATIONAL DESCRIPTION OF
THE ARABIC TENSE SYSTEM

(A) Introduction

The transformational approach to the analysis and description of languages is perhaps the most popular in linguistic circles today. Though the roots of present-day transformational theory could be traced way back in the history of language study, its modern formulation first appeared in Chomsky's Syntactic Structures in 1957. Since then, hundreds of transformational analyses have been worked out for various languages. Yet, there is not a single transformational analysis known to the present writer which tackles the problem of tense in Arabic transformationally. Hence, it seems worthwhile to outline a description of Arabic tense and aspect based on the canons of transformational theory.¹

As has already been mentioned in Chapter Five of Part Two, leading transformationalists like Chomsky,

¹The writer is aware that since Syntactic Structures many modified and new versions of transformational theory have been put forward both by Chomsky himself as well as by other linguists like Lakoff, McCawley and Fillmore. Yet, for the practical purposes of the present study and for its limited use of transformations, the early transformational model of Syntactic Structures, with some modifications, has been found adequate and hence adopted.

Katz and Postal, and many others, hold that all semantically-relevant linguistic entities should be represented in the deep structure of sentences.² It has therefore been concluded in Part Two that tense and aspect should primarily belong to deep structures. The relevant question now, however, is how tense and aspect are represented in the deep structure of Arabic sentences.

(B) Deep Tense in Arabic

To determine the status of tense in the deep structure of Arabic sentences, let us consider the following string:

*/huwa SFR bil?ams/

*'He travel yesterday'

The above string is ungrammatical since its verb appears in its root form only. Semantically, however, the temporal reference of the string to a past point of time is unambiguous. Obviously, it is the presence of the temporal adverbial /bil?ams/ which makes the above string temporally meaningful. It thus seems tenable to assume that tense is primarily indicated by temporal adverbials rather than by verb inflections. It is consequently postulated here that tense in Arabic is represented in

²For a discussion of 'deep' versus 'surface' structures, see (a) Chomsky, Aspects of the Theory of Syntax, p.16, and (b) Lyons, Theoretical Linguistics, p. 247.

deep structures by temporal adverbials and that tense verb inflections, i.e. $\{D_1\}$ and $\{P_1\}$, are nothing but surface representations of deep temporal adverbials of tense.

(C) Deep Aspect in Arabic

To determine what represents aspect in the deep structure of Arabic sentences, let us consider the following sentence:

/huwa yusāfir ghadan/

'He travels tomorrow'

Any native speaker of Arabic will understand the above sentence as temporally equivalent to:

/huwa sayusāfir/

'He will travel'

in as far as both refer to a time later than the moment of utterance of the two sentences. The possibility of referring to temporal relations without the use of aspectual verb markers, as in the first sentence above, clearly indicates that aspectual temporal relations are not therefore primarily associated with aspectual verb markers like $\{D_2\}$, $\{P_2\}$, $\{P_{2+}\}$, $\{P_{2\emptyset}\}$. It is however important to pinpoint what exactly in the first sentence **above** enables it to refer to 'lateness' despite the absence of the later-aspect marker $\{P_{2+}\}$. Obviously, 'lateness' is only specified by the temporal adverbial

/ghadan/ in that sentence. Hence one is justified in assuming that aspectual temporal relations are primarily indicated by temporal adverbials rather than by verb aspectual inflections.

The second sentence above, i.e. /huwa sayusāfir/, may seem to constitute a counterexample to the above postulation since it clearly refers to 'lateness' by the presence of the later aspectual marker $\{P_2+\}$ in /sa-/ plus the prefix /yu-/, yet without the presence of a temporal adverbial. The above hypothesis concerning the priority of temporal adverbials in indicating aspect can, however, be retained if it is postulated that in the deep structure of every compound and complex tense in Arabic there exists a relational temporal adverbial which is replaced by aspectual verb markers in the surface structure.

(D) Formalization of Tense and Aspectual Rules in Deep Structure

As has been argued above, tense and aspect in Arabic are analyzed here as represented in the deep structure by Tense Temporal Adverbials (TTA) and Aspect Temporal Adverbials (ATA), respectively. Moreover, any sentence in Arabic may be initially analyzed into a Noun Phrase and a Predicate Phrase. Predicate Phrases in Arabic may take the form of a Noun Phrase, an Adjective, or a Verb Phrase. Tense and aspect in Arabic

are a characteristic of the Verb Phrase. Verb Phrases can be analyzed according to the following rule:

$$VP \longrightarrow Aux \left\{ \begin{array}{l} \text{root} \\ \text{root} + NP \end{array} \right\} + (\text{Adv}t)$$

Now, according to the above discussion on tense and aspect, either one or both varieties of temporal adverbials, viz. tense and aspectual, must appear in the rewriting of Aux above. The following rule is therefore formulated:

$$Aux \longrightarrow TTA + (ATA)_n$$

$n \neq 2$

The above rule shows that one occurrence of TTA is compulsory in any Aux whereas the occurrence of ATA is optional. Simple tenseemes do not have any ATA in their underlying P-markers whereas compound and complex tenseemes do. The maximum number of Aspectual Temporal Adverbials in any Arabic tenseme is also shown in the above rule to be two.

Tense Temporal Adverbials in Arabic can only be of two types. The following rule represents this analysis:

$$TTA \longrightarrow \left\{ \begin{array}{l} /bilmāḍi/ \text{ 'in the past' } \\ /fi lḥāḍir/ \text{ 'at present' } \end{array} \right\}$$

The above rule is to appear directly following the Auxiliary rule in any full transformational grammar of Arabic.

Aspect Temporal Adverbials, on the other hand, are of four kinds in Arabic, each representing a different temporal relation in reference to a given point of reference. As has been indicated in the Auxiliary rule above, no more than two ATAs can co-occur in any Arabic tenseme. Besides, when two ATAs co-occur in any tenseme the first one of them is always the ATA of /lāḥiqan/ 'later' whereas the second ATA may be any of the following three: /lā sābiqan/ 'non-earlier', /sābiqan/ 'earlier', or /ʔāniyyan/ 'simultaneously'. This implies that the last three ATAs never co-occur in any Arabic tenseme. The following context-sensitive rule reflects the above analysis of deep aspect in Arabic:

$$\text{ATA} \longrightarrow \left\{ \begin{array}{l} \text{lāḥiqan} / \text{---} + (\text{ATA}) \\ \left\{ \begin{array}{l} \text{lā sābiqan} \\ \text{sābiqan} \\ \text{ʔāniyyan} \end{array} \right\} / (\text{lāḥiqan}) + \text{---} \end{array} \right\}$$

(E) Transformational Rules
of Tense and Aspect

The temporal equivalence of such pairs of sentences as:

1.(a) /huwa sayusāfir ghadan/

(b) /huwa yusāfir ghadan/

2.(a) /huwa kāna qaraʔa lkitāb qablamā qābaltuhu/

'He had read the book before I met him.'

(b) /huwa qaraʔa lkitāb qablamā qāhaltuhu/

'He read the book before I met him'

can be explained by the formulation of an optional transformational rule which allows for the deletion of redundant aspectual verb markers. The presence of /ghadan/ 'tomorrow' and /qablamā/ makes sentences (1.a) and (2.a) above explicitly refer to a time later and earlier than the point of reference of the two sentences respectively. Consequently, the presence of ^{the}/later-aspect verb marker $\{P_2+\}$ in sentence (1.a) above and the earlier-aspect verb marker $\{D_2\}$ in sentence (2.a) is redundant. By the application of an optional deletion transformation, the second sentence of each of the two pairs above can be produced. This deletion rule may take the following form in Arabic grammar:

Tdel: NP + TTA + ATA + root + X + Advt
ATA → NP + TTA + root + X + Advt

(when ATA and Advt have an identical temporal value of relation)

As has already been pointed out in Chapter Three of this part of the study and as has also been indicated by the Auxiliary rule in this chapter, tense appears initially in Arabic tenseemes whereas aspect always appears non-initially. Moreover, the last aspect is always attached to the verb root of the tenseme. This

leaves any other aspectual marker and the tense marker 'floating', i.e. not carried by any verb root. It has also been pointed out in Chapter Three that in such cases, Arabic introduces the root {KWN} to function as a carrier for any floating tense or aspect. The Carrier Transformation in Arabic may be formulated as follows:

$$\begin{aligned}
 \text{Tcar}_1: \quad & \left\{ \begin{array}{c} \text{TTA} \\ \text{ATA} \end{array} \right\} + \left\{ \begin{array}{l} /sābiqan/ \text{'earlier'} \\ /lā sābiqan/ \text{'non-earlier'} \\ /ʔāniyyan/ \text{'simultaneously'} \end{array} \right\} \\
 \longrightarrow & \left\{ \begin{array}{c} \text{TTA} \\ \text{ATA} \end{array} \right\} + \text{KWN} + \left\{ \begin{array}{l} /sābiqan/ \\ /lā sābiqan/ \\ /ʔāniyyan/ \end{array} \right\}
 \end{aligned}$$

It is to be noticed that in the above transformation, the ATA /lāḥiqan/'later' is not mentioned. This is because, as has already been pointed out in Chapter Three, Arabic does not usually introduce a carrier with later aspect when it occurs with the present tense. Thus Arabic uses the tenseme /sayaf9al/ for later-present reference instead of /yakūnu sayaf9al/ which, though it still exists in Arabic, is very limited in its usage as has already been mentioned in the previous chapter. When later-aspect is associated with the past tense, however, the Carrier Transformation is compulsorily applicable. This idiosyncrasy of later aspect in Arabic can be accounted for by introducing a second carrier transformation as follows:

Tcar₂:

bilmāḍi + lāḥiqan → bilmāḍi + KWN + lāḥiqan

The above rule shows that only with past tense, Arabic introduces a carrier to carry the 'floating' tense associated with later aspect. The rule also suggests that later aspect in Arabic always precedes other aspects, as has already been pointed out in Section (D) in this chapter.

(F) Applications³

(1) /salīm katab ddarsabilʔams/

'Salīm wrote the lesson yesterday.'

S → NP + VP

→ NP + TTA + root + X + Advt

→ NP + bilmāḍi + root + X + Advt

Taf → NP + root + bilmāḍi + X + Advt

→ salīm + KTB + D₁ + ddars + bilʔams

→ salīm katab ddarsa bilʔams

(2) /huwa yusāfir ghadan/

'He travels tomorrow.'

S → NP + VP

→ NP + TTA + ATA + root + Advt

→ NP + fi lhāḍir + lāḥiqan + root + Advt

³For forms of rules other than those already described in this chapter, see the next section.

Tdel \longrightarrow NP+ fi lhāḍir + root + Advt
 $\frac{ATA}{Taf}$ \longrightarrow NP + root + fi lhāḍir + Advt
 \longrightarrow huwa + SFR + P₁ + ghadan
 \longrightarrow huwa yusāfir ghadan

(3) /naḥnu sanusāfir ?ila l9irāq/

'We will travel to Iraq.'

S \longrightarrow NP + VP
 \longrightarrow NP + TTA + ATA + root + X
 \longrightarrow NP + fi lhāḍir + lāḥiqan + root + X
Taf \longrightarrow NP + fi lhāḍir + root + lāḥiqan + X
 $\frac{T}{Taf}$ \longrightarrow NP + root + fi lhāḍir + lāḥiqan + X
 \longrightarrow naḥnu + SFR + P₁ + P₂₊ + ?ila l9irāq
 \longrightarrow naḥnu sanusāfir ?ila l9irāq

(4) /huwa kāna yaktubu ddars/

'He was writ(ing) the lesson.'

S \longrightarrow NP + VP
 \longrightarrow NP + TTA + ATA + root + X
 \longrightarrow NP + bilmāḍi + lā sābiqan + root + X
Tcar \longrightarrow NP + bilmāḍi + KWN + lā sābiqan + root + X
Taf \longrightarrow NP + KWN + bilmāḍi + root + lā sābiqan + X
 \longrightarrow huwa + KWN + D₁ + KTB + P₂ + ddars
 \longrightarrow huwa kāna yaktubu ddars

(5) /huwa kāna sayakūnu kataba ddars/

'He would have written the lesson'

S \longrightarrow NP + VP

→ NP + TTA + ATA₁ + ATA₂ + root + X

→ NP + bilmāḍi + lāḥiqan + sābiqan + root + X

Tcar → NP + bilmāḍi + KWN + lāḥiqan + KWN + sābiqan +
root + X

Taf → NP + KWN + bilmāḍi + KWN + lāḥiqan + root +
sābiqan + X

→ NP + KWN + D₁ + KWN + P₂₊ + KTB + D₂ + ddars

→ huwa kāna sayakūnu kataba ddars

(6) /salīm kāna jālis bilḥadiqa/

'Salīm was sitting in the garden.'

S → NP + VP

→ NP + TTA + ATA + root + X

→ NP + bilmāḍi + ?āniyyan + root + X

Tcar → NP + bilmāḍi + KWN + ?āniyyan + root + X

Taf → NP + KWN + bilmāḍi + root + ?āniyyan + X

→ NP + KWN + D₁ + JLS + P₂∅ + bilḥadiqa

→ salīm kāna jālis bilḥadiqa

(G) Basic Transformational Grammar
of the Arabic Verbal System⁴

(1) Phrase Structure Rules

Σ: Sentence

F: 1. S → NP + PP

⁴This is not meant to be a full transformational grammar of the Arabic verbal system. It is rather a brief outline the main emphasis of which is on the description of temporality in Arabic verbs.

2. PP \longrightarrow $\left\{ \begin{array}{c} \text{NP} \\ \text{Adj} \\ \text{VP} \end{array} \right\}$
3. VP \longrightarrow Aux $\left\{ \begin{array}{c} \text{root} \\ \text{root} + \text{NP} \end{array} \right\} + (\text{Adv}t)$
4. Aux \longrightarrow TTA + (ATA)_n
 $n \neq 2$
5. TTA \longrightarrow $\left\{ \begin{array}{c} \text{bilmāḍi} \\ \text{fi lhāḍir} \end{array} \right\}$
6. ATA \longrightarrow $\left\{ \begin{array}{c} \text{lāḥiqan/} \text{ — } + (\text{ATA}) \\ \left\{ \begin{array}{c} \text{lā sābiqan} \\ \text{sābiqan} \\ \text{ʔāniyyan} \end{array} \right\} / (\text{lāḥiqan}) + \text{ — } \end{array} \right\}$
7. root \longrightarrow KTB, SFR, JLS, TRJM, QYM, ...
8. NP \longrightarrow /ʔarrajul/'the man', /kitāb/'a book',
 /huwa/'he', /ʔalʔawlād/'the boys', ...
9. Adj \longrightarrow /jamīl/'pretty', /ṭawīl/'long, tall', ...
10. Advt \longrightarrow /sābiqan/'earlier', /ṣabāḥan/'in the
 morning', /ʔassana lmāḍiya/'last
 year', /ghadan/'tomorrow', /9indamā
 yaʔti/'when he comes', ...

(ii) Transformational Structure Rules

11. Tdel NP + TTA + ATA + root + X + Advt
 ATA
 \longrightarrow NP + TTA + root + Advt + X
 (when ATA and Advt have an identical
 temporal value of relation)

12. T_{subj}: NP + TTA + (ATA) + root + X

→ TTA + (ATA) + root + X

/ʔalwalad kataba ddarsa/

'The boy wrote the lesson.'

/kataba ddarsa/

→ '(He) wrote the lesson.'

13. T_{passive}:

NP₁ + TTA + (ATA) + root + NP₂ + X

→ NP₂ + TTA + (ATA) + root + passive + X

/ʔalwalad kataba ddarsa/

'The boy wrote the lesson.'

→ /ʔaddarsu kutib/

'The lesson (was) written.'

14. T_{ap}: NP + TTA + simultaneously + root + X

→ NP + simultaneously + root + X

/ʔalwalad kataba ddars/

'The boy wrote the lesson.'

→ /ʔalwaladu kātibun ddars/

*(The boy writing the lesson)

15. T_{pp}: NP₂ + TTA + simultaneously + root +

passive + X

→ NP₂ + simultaneously + root + passive + X

/ʔaddarsu kutib/ + simultaneously

'The lesson was written' + simultaneously

→ /ʔaddarsu maktūb/

*(The lesson written)

$$16. \text{Tcar}_1: \left\{ \begin{array}{c} \text{TTA} \\ \text{ATA} \end{array} \right\} + \left\{ \begin{array}{l} /sābiqan/ \text{ 'earlier'} \\ /lā sābiqan/ \text{ 'non-earlier'} \\ /ʔāniyyan/ \text{ 'simultaneously'} \end{array} \right\}$$

$$\longrightarrow \left\{ \begin{array}{c} \text{TTA} \\ \text{ATA} \end{array} \right\} + \text{KWN} + \left\{ \begin{array}{l} /sābiqan/ \\ /lā sābiqan/ \\ /ʔāniyyan/ \end{array} \right\}$$

$$17. \text{Tcar}_2: \text{bilmāḍi} + \text{lāḥiqan}$$

$$\longrightarrow \text{bilmāḍi} + \text{KWN} + \text{lāḥiqan}$$

$$18. \text{Taf}: \text{af} + \left\{ \begin{array}{c} \text{root} \\ \text{carrier} \end{array} \right\} \longrightarrow \left\{ \begin{array}{c} \text{root} \\ \text{carrier} \end{array} \right\} + \text{af}$$

(where af is any TTA or ATA)

$$19. \text{Tinvert}: \text{NP} + \left\{ \begin{array}{c} \text{root} \\ \text{KWN} \end{array} \right\} + \text{TTA} + (\text{ATA}) + \text{X}$$

$$\longrightarrow \left\{ \begin{array}{c} \text{root} \\ \text{KWN} \end{array} \right\} + \text{TTA} + (\text{ATA}) + \text{NP} + \text{X}$$

/salim jāʔa/ 'Salim came'

$$\longrightarrow /jāʔa salim/ \text{ *(came Salim)}$$

(iii) Morphophonemic Structure Rules

$$20. \text{bilmāḍi} \longrightarrow \{D_1\}$$

$$21. \text{fi lhāḍir} \longrightarrow \{P_1\}$$

$$22. \text{sābiqan} \longrightarrow \{D_2\}$$

$$23. \text{lā sābiqan} \longrightarrow \{P_2\}$$

$$24. \text{lāḥiqan} \longrightarrow \{P_2^+\}$$

$$25. \text{ʔāniyyan} \longrightarrow \{P_2\emptyset\}$$

26. $\{P_1\} + \text{root} \longrightarrow \text{empty } \{P_2\} + \{P_1\} + \text{root}$
(initially in VP)
27. $\{D_1\} + \text{root} \longrightarrow \text{empty } \{D_2\} + \{D_1\} + \text{root}$
(initially in VP)
28. $\{P_2\} + \text{root} \longrightarrow \{P_2\} + \text{empty } \{P_1\} + \text{root}$
(non-initially in VP)
29. $\{D_2\} + \text{root} \longrightarrow \{D_2\} + \text{empty } \{D_1\} + \text{root}$
(non-initially in VP)
30. $\{P_2\emptyset\} + \text{root} \longrightarrow \text{active-participle form}$
31. $\{P_2\emptyset\} + \text{root} + \text{passive} \longrightarrow \text{passive-participle form}$
32. $\{D_1\} \longrightarrow \left\{ \begin{array}{l} /a - a/ \\ /a - i/ \\ /a - u/ \end{array} \right\} \left. \vphantom{\begin{array}{l} /a - a/ \\ /a - i/ \\ /a - u/ \end{array}} \right\} \text{Morphologically-conditioned variants}$
33. $\{P_1\} \longrightarrow \left\{ \begin{array}{l} /\emptyset - u/ \\ /\emptyset - i/ \\ /\emptyset - a/ \end{array} \right\} \left. \vphantom{\begin{array}{l} /\emptyset - u/ \\ /\emptyset - i/ \\ /\emptyset - a/ \end{array}} \right\} \text{Morphologically-conditioned variants}$
34. $\{P_2\} \longrightarrow \text{prefix (pre-stem position)}$
35. $\{D_2\} \longrightarrow \text{zero prefix (i.e. absence of prefix)}$
36. $\{P_2\} \longrightarrow \left\{ \begin{array}{l} /sa-/ \\ /sawfa/ \end{array} \right\} + \text{prefix}$
37. $\{P_2\emptyset\} \longrightarrow (/mu-) + /ā - i/$
38. $\{P_2\emptyset\} + \text{passive} \longrightarrow /ma-/ + /ū/$

CHAPTER SIX

FUNCTIONS OF ARABIC TENSEMES

(A) Introduction

A linguistic study which includes application in its aim, like the present one, cannot dispense with a discussion of the functions of the linguistic phenomena it has set out to describe. Modern transformational analyses of various phenomena in different languages can, in fact, be mainly criticized for lacking in this respect. Language is not a system of vocal symbols that exists in a vacuum; it is rather always found in action. Communication is the major purpose of any language; and the communicative aspect of language cannot be properly understood without an analysis of the functions of the various systems that make up the language.¹

Functions of tenseemes in Arabic can be analyzed in terms of a basic distinction between 'systematic' versus 'non-systematic' uses of those tenseemes.² A given tenseeme is said here to function systematically if the temporal function it is performing is formally indicated by the tense and/or the

¹For a more expanded analysis of this point, see pp. 220 - 221.

²For the origin of this distinction, see pp. 221 - 224.

aspect markers of that tense. Conversely, a function is said to be non-systematic if it cannot be deduced only from the formal time markers of the tense by which it is indicated. To illustrate this distinction further, the following two sentences are cited here :³

1. /huwa yusāfir bissayyāra/

'He travels by car.'

2. /huwa yusāfir bissayyāra ghadan/

'He travels by car tomorrow.'

According to what has just been said above, the tense /yusāfir/ is functioning systematically in sentence 1 above but unsystematically in sentence 2. This is because the tense marker $\{P_1\}$ is assuming its normal or expected temporal value of non-pastness in the first sentence above; the tense indicates a general habitual action. In the second sentence above, however, the same tense does not indicate non-pastness but futurity rather. It does so by its co-occurrence with the temporal adverbial of futurity /ghadan/. Since futurity is normally, or systematically, indicated in Arabic tenses by $\{P_1\} + \{P_2+\}$ together, and not by $\{P_1\}$ alone as in /yusāfir/, this function of /yusāfir/ in sentence 2 above is to be regarded as non-systematic.

³See also pp.221 - 223.

Two important facts emerge from the above, First, that non-systematic functions of tenseemes are usually achieved by the co-occurrence of those tenseemes with certain temporal adverbials. Not all associations with temporal adverbials, however, produce non-systematic functions. The temporal adverbial /kulla yawm/'everyday', for example, would not change anything of the basic temporal value of $\{P_1\}$ in a sentence like :

/huwa yusāfir bissayyāra kulla yawm/

'He travels by car everyday.'

The above sentence still refers to a habitual action. This is because the temporal value of /kulla yawm/ corresponds to that of $\{P_1\}$ in referring to non-pastness. The temporal adverbial /ghadan/'tomorrow', on the other hand, changes, or specifies, the basic temporal value of $\{P_1\}$ as can be seen in sentence number 2 on the previous page. This distinction between temporal adverbials that change and those that do not change the temporal value of the tense and/or aspect markers of the tenseemes they are associated with can be formally tested by the 'non-omissibility' of those that fall in the first category and the 'omissibility' of those of the second category, respectively.⁴

⁴The terms 'omissible' and 'non-omissible' are used in this context for English by David Crystal, "Specification and English Tenses," Journal of Linguistics, Vol. 2, No. 1 (April, 1966).

A temporal adverbial like /kulla yawm/ in the above sentence can be omitted without affecting the temporal value of the co-occurrent tenseme /yusāfir/. The adverbial /ghadan/, on the other hand, cannot be omitted from the second sentence on page 591 without changing the temporal value of the sentence from futurity to non-pastness. The distinction between 'omissible' versus 'non-omissible' temporal adverbials forms the second important fact that emerges from the discussion on the two sentences given on page 591 above.

The foregoing discussion indicates that any analysis of the functions of tenseemes in Arabic should incorporate the description of the association of those tenseemes with various temporal adverbials. This very conclusion has in fact been already reached in respect to many other languages. Kahane and Hutter have carried out such a description for the functions of tenseemes in Brazilian Portuguese,⁵ and Crystal has suggested it for English.⁶ The use of temporal adverbials as a means of classification has already yielded a detailed and interesting inventory of functions for English tenseemes in Chapter Six of Part

⁵H.R.Kahane and H.S.Hutter, "The Verbal Categories of Colloquial Brazilian Portuguese," Word (9, 1953).

⁶D. Crystal, op. cit.

Two of the present study. It has consequently been decided to use the same approach for the analysis of functions of Arabic tenseemes.

(B) Description of the Analyti-
.cal Approach

Semantic considerations have been used in this analysis of functions as a classificatory criterion for functions of tenseemes and for elucidating different categories of temporal adverbials. A notional classification of functions has been justified and used by Crystal for English and by Bull for Spanish. Besides, a notional classification of adverbials has already been used for English by Jakobson.⁷ It is the point of view held here that when dealing with functions, a resort to semantics is both justifiable and useful providing that the use of semantics is only kept as a classificatory means secondary to formal criteria.

I. Test One⁸

(i) Objectives

1. To analyze the functions of Arabic

⁷Sven Jakobson, Adverbial Positions in English (Uppsala: Ab Studentbook, 1964).

⁸This same test has been used earlier in the present study in order to obtain a large variety of verbal forms, rather than functions as is the case here.

tenseemes in terms of their different associations with various temporal adverbials.

2. To find out how far some grammars are justified in presenting the learners of Arabic, both native and non-native, with various functions of tenseemes without relating these tenseemes to certain co-occurrences with specific temporal adverbials.
3. To sort out the systematic ~~versus~~ the non-systematic functions of tenseemes.

(ii) Procedure

1. To realize the first objective above, a number of educated Arabs were presented with a large variety of Arabic tenseemes and were asked to use them in sentences of their own. Each sentence had to contain at least one temporal adverbial. The analysis of the associations of each tenseeme with different categories of temporal adverbials was to form the basis of the identification of the functions of that tenseeme.
2. The conclusion that some temporal adverbials are 'non-omissible' in the indication of certain functions of a given tenseeme is an evidence of the inadequacy of grammatical treatments that analyze the temporality of

tenseemes without any reference to temporal adverbials.

3. Tenseemes tend to be used systematically in the majority of cases. Thus the frequency of co-occurrences with different categories of adverbials is a useful indication to the nature of the functions of that tenseeme, i.e. what functions are systematic and what are not. The following tables on the analysis of the data of Test One will indicate that certain tenseemes tend to co-occur with certain temporal adverbials in the majority of cases. Less frequent co-occurrences with other categories of temporal adverbials usually indicate non-systematic functions, as will be seen in the general conclusions at the end of this chapter.

(iii) Format of the Test

The test has already appeared in Chapter One of Part Three. For the format, see pp.394-396 as well as appendix C.

II. Test Two

(i) Objectives

1. To acquire a broader picture of the temporal

distribution of Arabic tenseemes by associating these tenseemes with different categories of temporal adverbials.

2. To form a general view of the frequency of occurrences of each tenseme with different temporal categories of adverbials. Higher frequencies, as has just been mentioned, would suggest systematic functions and vice-versa.
3. To get an even fuller analysis of temporality in Arabic tenseemes by observing the different tenseemes that can formally represent a given temporal category.

(ii) Procedure : It was thought that:

1. Analyzing each tenseme in terms of its various co-occurrences with different temporal adverbials would reveal many useful facts about the relationship between tense and temporality in Arabic. This could be achieved practically by asking some native informants to express certain temporal categories by verbal forms.
2. The analysis of the data of Test Two would reveal both the distribution and the frequency of each tenseme in relation to various temporal adverbials. Both of these

are relevant to the analysis of functions of Arabic tenseemes.

3. By taking the temporal categories indicated by adverbials as the basis of comparison, the third objective above could be realized. (This is done in the tables on the data analysis of Test Two.)

(iii) Format of Test Two

For purposes other than the analysis of functions, this test has already been reported in Chapter One of Part Three in the present study. The format of this test therefore appears on pp. 397-402 as well as in Appendix C.

(iv) The Notional Classification of Time Reflected by the Sentences of Test Two⁹

1. Past Time

a. General	: 1, 2
b. Specific	: 10, 17, 26, 27, 29
c. Simultaneous	: 3, 12
d. Earlier	: 19, 30
e. Later	: 4, 11

⁹Numbers refer to the actual numbers of sentences on the test sheet of Test Two reproduced on pages 397 - 402 and in Appendix C.

2. Present Time

- a. General (All Time) : 7, 14
- b. Specific (Simultaneous) : 20, 25
- c. Contemporaneous : 5, 28
- d. Earlier : 6, 13, 16
- e. Later : 18

3. Future Time

- a. General : 8, 22
- b. Specific : 9, 24
- c. Simultaneous: 15
- d. Earlier : 23
- e. Later : 21

(C) Analysis of Responses to
Experimental Tests

The number of sentences analyzed and reported in the tables of both tests is 2886 sentences: 1137 sentences as responses to Test One and 1749 to Test Two. The number of informants taking part in the two tests mentioned above is 138 students. The informants come from the Arabic Department at the University of Basrah in Iraq and from Beirut College for Women in Lebanon.

I. Test One

The following terms are used in the classification of temporal adverbials in the tables of

Test One reported below. Examples from Arabic are given as representative of these temporal classificatory terms. As for the definitions of these terms, they are the same as those given on pages 268 - 269 for English adverbials.

1. A SPECIFIC point/period of time: e.g. /ghadan/'tomorrow'; /fi ssā9a ththālitha/'at three o'clock'; /fi shshahri lmādi/'last month'; etc...
2. An UNSPECIFIC point/period of time: e.g. /bilmustaqbal/'in the future'; /9indamā waṣal/'when he arrived'; /hālan/'soon'; etc...
3. An UNSPECIFIED point/period of time: e.g. /masāʔan/'in the evening'; /sābiqan/'earlier'; /fi ssā9a l9āshira/'at ten o'clock'; etc...
4. A SPECIFIED point/period of time:¹⁰ e.g. /ghadan/'tomorrow'; /9indamā yaʔti/'when he comes'; /bilʔams/'yesterday'; etc...

Each of the following tables used in reporting and analyzing the data of Test One consists of three columns. In the first column appear all the co-occurr^eant adverbials with the tense^semes in question. Then adverbials are sub-divided into various temporal

¹⁰ Notice that the term SPECIFIED as such is not used in the tables of Test One. Its ~~specific~~ variants Past, Present, and Future are used instead.

categories by means of the four classificatory criteria mentioned above. Column two contains sentences in which the temporal categories appearing opposite are used. Only the numbers of sentences as appear in Appendix (B) are given in this column. In the third column, the various functions of each tenseme are reported. It is important to realize here that each of these functions is to be understood as the outcome of the association of that tenseme with the temporal adverbials that appear opposite it in the tables. This is because no attempt has been made at this stage to distinguish systematic versus non-systematic functions of tensemes. This will be done toward the end of this chapter in the general inventory of function for all Arabic tensemes.

Each of the following tables reports the analysis of all the sentences that use one specific tenseme. The specific tenseme the functions of which are being analyzed is given at the top of every table in each case.

TABLE 50

1. /yaktub/ (Basic Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Simultaneous Present</u>	1,5,7,11,12,16,17,18,21,23,28,31,38,40,41,42,46,50,51,64,65,67	<u>An Action/State taking place at the Moment of Speech</u>
(B) <u>An Unspecified Point</u>	3,10,13,15,25,26,29,30,32,34,39,43,48,49,52,54	<u>A Personal Habit or a 'Timeless' Fact</u>
(C) <u>Before an Unspecified Point</u>	4	<u>As in (B) above</u>
(D) <u>An Unspecified Frequency</u>	27,53,59,62,63,68	<u>As in (B) above</u>
(E) <u>A Specific Future Point</u>	36,44	<u>A Specific Future Action/State</u>
(F) <u>Past Duration Extending up to the Moment of Speech</u>	24,70	<u>A Past Activity Continuing up to Present</u>

TABLE 51

2. /katab/ (Basic Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point</u>	1,2,6,7,12,13,14,15,18,20,23,24,26,34,40,42,47,48,49,51,52,57,58,61,62,63	<u>An Action/State that took place at a Specific Point in the Past</u>
(B) <u>A Specific Past Point</u>	3,9,11,17,21,22,28,41,53,56,59,60,64,66,67,68,69,70	<u>As in (A) above</u>
(C) <u>A Specific Point at Day-time</u>	4,31,33,37	<u>As in (A) above</u>
(D) <u>A Past Duration Extending up to Moment of Speech</u>	5	<u>A Past Action/State that continues up to the Moment of Speech</u>
(E) <u>An Unspecific Past</u>	16,25,38,45	<u>An Action/State taken place at an Unspecific Past Point</u>
(F) <u>Simultaneous Present</u>	29,30,32	<u>An Action/State taken place at Recent Past</u>

contd...

Table 51 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(G) <u>Before an Un-</u> <u>specified Point</u>	43, 50, 55, 65	<u>An Action/State</u> <u>taken place at</u> <u>Pre-Past</u>

TABLE 52

3. /takūnu dhahabat/ (Earlier Non-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point</u>	1, 2, 11, 27, 37, 40, 43, 47, 48, 53, 63	a. <u>An Action that usually takes place before an Unspecified Point</u> b. <u>A Tentative Past</u> c. <u>A Tentative Pre-Future</u>
(B) <u>An Unspecific Past Point</u>	5, 9, 10, 12, 18, 29, 49	<u>As in (Ab) above</u>
(C) <u>Simultaneous Present</u>	7, 15, 17, 44, 55, 61, 62, 64, 68	<u>A Tentative Action/State at Recent Past</u>

contd...

Table 52 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(D) <u>After an Unspecified Point</u>	36, 38, 39, 50, 51, 54, 59	<u>As in (Aa), (Ab) or (Ac) above</u>
(E) <u>An Unspecific Point at Non-Past</u>	8, 24, 56, 69	<u>As in (Aa) or (Ac) above</u>
(F) <u>Before an Unspecified Point</u>	13, 20, 23, 46, 65	a. <u>As in (Aa) above</u> b. <u>As in (Ac) above</u> c. <u>Tentative Pre-Past</u>
(G) <u>A Specific Past Point</u>	21, 58, 60, 66	<u>As in (Ab) above</u>
(H) <u>A Specific Point at Daytime</u>	32	<u>As in (Ac) above</u>
(I) <u>Before a Specific Past Point</u>	33	<u>As in (Fc) above</u>
(J) <u>A Specific Future Point</u>	67	<u>As in (Ac) above</u>

TABLE 53

4. /kāna (qad) katab/ (Earlier Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Before an Unspecified Point</u>	1, 3, 4, 17, 27, 29, 30, 32, 36, 43, 44, 54, 55, 57, 64, 69	<u>An Action/State that took place before a Past Point of Time</u>

contd...

Table 53 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>Simultaneous Present</u>	2, 15, 28, 38	<u>A Recent-Past Action</u>
(C) <u>At an Unspecific Past</u>	a. 5, 7, 10, 12, 18, 45, 50, 53, 59, 62 b. 63 (with <u>law</u> 'if')	a. <u>As in (A) above</u> b. <u>A Hypothetical Action in the Past</u>
(D) <u>At an Unspecified Point</u>	8, 9, 24, 25, 37, 41, 46, 47, 49, 52, 65, 68	<u>As in (A) above</u>
(E) <u>At a Specific Past</u>	a. 11, 13, 21, 33, 39, 48, 56, 58, 66, 70 b. 67 (with <u>lawlā</u> 'but for')	a. <u>As in (A) above</u> b. <u>As in (Cb) above</u>

TABLE 54

5. /satusāfir/ (Later Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>After an Unspecified Point</u>	1, 12, 40, 45, 46, 48, 51, 70	<u>A Post-Future Action</u>

contd...

Table 54 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>At an Unspecified Point</u>	2,15,16,18,20,21,22,23,25,26,34,42,43,47,49,50,52,53,54,55,58,63	<u>An Action that will take place at a Point in the Future</u>
(C) <u>At a Specific Future Point</u>	3,5,6,7,8,9,10,11,13,19,24,27,28,29,30,31,32,33,35,36,37,39,41,44,56,57,59,60,61,62,64,65,66,67,68,69	<u>As in (B) above</u>
(D) <u>Before an Unspecified Point</u>	4,38	<u>A Pre-Future Action</u>
(E) <u>Simultaneous Present</u>	17	<u>An Action that will take place at Near Future</u>

TABLE 55

6. /kānat satusāfir/ (Later Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>At an Unspecified Point</u>	a.1,9,16,20,43,48,54 b.32,57,62 (with <u>lawlā</u>)	a. <u>A Tentative Past</u> b.1. <u>A Hypothetical Past</u> 2. <u>A Hypothetical Future</u>

contd...

Table 55 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>After an Un-specified Point</u>	<u>a.</u> 2, 15, 17, 18, 38, 39, 40, 44, 70 <u>b.</u> 27, 63, 68 (with <u>lawlā</u>)	<u>a.</u> <u>An Intended Action at Post-Past</u> <u>b.1.</u> <u>A Hypothetical Post-Past Action</u> <u>2.</u> <u>A Hypothetical Post-Future Action</u>
(C) <u>Before an Un-specified Point</u>	4, 12	<u>a.</u> <u>A Hypothetical Pre-Past Action</u> <u>b.</u> <u>A Hypothetical Pre-Future Action</u>
(D) <u>Simultaneous Present</u>	10, 64	<u>A Hypothetical Simultaneous-Present Action</u>
(E) <u>A Specific Future Point</u>	11, 13, 21, 24, 29, 37, 55, 69	<u>As in (Ab2) above</u>
(F) <u>A Specific Past Point</u>	<u>a.</u> 22, 60, 65, 66 (with <u>law</u> or <u>lawlā</u>) <u>b.</u> 45, 50, 58, 67	<u>a.</u> <u>As in (Ab1) above</u> <u>b.1.</u> <u>As in (Ab1) above</u> <u>2.</u> <u>As in (Aa) above</u>

contd...

Table 55 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(G) <u>At Daytime Period</u>	33	<u>A Hypothetical Action at Contemporaneous Present</u>

TABLE 56

7. /yakūnu nā?im/ (Simultaneous Non-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>At an Unspecified Point</u>	1,6,8,9,10,11,12,13,16,17,20,22,24,26,30,31,32,38,39,40,41,42,43,44,45,46,48,49,50,52,53,57,58,59,60,68,28	a. <u>An Action/State usually simultaneous with an Unspecified Point</u> b. <u>An Action/State that is expected to be simultaneous with a Future Point</u>
(B) <u>Frequency at Unspecified Points</u>	4,55,62,64,66,69	<u>As in (Aa) above</u>

contd...

Table 56 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(C) <u>An Unspecific Point at Non-Past</u>	5	a. <u>As in (Aa)</u> <u>above</u> b. <u>As in (Ab)</u> <u>above</u>
(D) <u>Simultaneous Present</u>	7, 51, 61, 67	<u>A Tentative Simul-</u> <u>taneous Present</u> <u>Action/State</u>
(E) <u>Before an Un-</u> <u>specified Point</u>	15, 18, 33, 37, 54	a. <u>An Action/State</u> <u>Simultaneous</u> <u>with a Point</u> <u>that Precedes an-</u> <u>other at an Un-</u> <u>specified Time</u> b. <u>An Action/State</u> <u>Simultaneous</u> <u>with a Point</u> <u>that Precedes</u> <u>another at Future</u>
(F) <u>After an Un-</u> <u>specified Point</u>	27, 29, 65	a. <u>An Action/State</u> <u>Simultaneous</u> <u>with a Point</u> <u>that Follows an-</u> <u>other at an Un-</u> <u>specified Time</u> b. <u>An Action/State</u> <u>that Follows an-</u> <u>other in Future</u>

TABLE 57

8. /kāna māshiyan/ (Simultaneous Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>A Specific Past</u>	1,16,20,21,30,33,34,36,37,40,43,45,46,49,54,58,59,62,63,64,66,70	<u>An Action/State Simultaneous with a Point/Period in the Past</u>
(B) <u>After an Unspecified Point</u>	2	<u>An Action/State Simultaneous with a Point at Post-Past</u>
(C) <u>An Unspecified Point</u>	5,6,7,9,10,11,12,13,15,17,23,26,28,38,44,48,51,52,60,65	<u>As in (A) above</u>
(D) <u>An Unspecific Past Point</u>	42,61	<u>As in (A) above</u>
(E) <u>Before an Unspecified Point</u>	47,50	<u>An Action/State Simultaneous with a Point/Period at Pre-Past</u>

TABLE 58

9. /takūnu mahjūra/ (Simultaneous Non-Past (Passive))

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point</u>	1,12,17,23,26,30,36,37,38,45,48,49,50,56,57,58,59,62,65,66,67	a. <u>An Action/State usually Simultaneous with an Unspecified Point</u> b. <u>An Action/State Simultaneous with a Future Point</u>
(B) <u>Before an Unspecified Point</u>	2,29,41	a. <u>An Action/State usually Simultaneous with a Point that Precedes another Unspecified Point</u> b. <u>An Action/State Simultaneous with a Point that Precedes another Future Point</u>
(C) <u>A Specific Future Point</u>	5,21	<u>As in (Ab) above</u>
(D) <u>An Unspecific Point at Non-Non-Past</u>	8,24,47,52,61	a. <u>As in (Aa) above</u> b. <u>As in (Ab) above</u>

contd...

Table 58 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(E) <u>After an Unspecified Point</u>	13,18,27,43,53,54,68	a. <u>An Action/State usually Simultaneous with a Point that Follows another Unspecified Point</u> b. <u>An Action/State that Follows a Point at Future</u>
(F) <u>Simultaneous Present</u>	15,40,44,55,64,69	<u>A Tentative Simultaneous Present Action/State</u>
(G) <u>An Unspecific Future</u>	16	<u>As in (Ab) above</u>
(H) <u>A Specific Future</u>	20,63	<u>As in (Ab) above</u>

TABLE 59

10. /kānat maksūra/ (Simultaneous Past(Passive))

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecific Past Point</u>	1,2,10,11,13,16,17,23,24,27,29,30,36,41,43,44,46,47,54,58,59,61,48	<u>An Action/State Simultaneous with a Point at Past</u>

contd...

Table 59 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>Simultaneous Present</u>	4,15	<u>An Action/State Simultaneous with a Point at Recent Past</u>
(C) <u>An Unspecified Point</u>	5,7,18,26,28,37,38,49,52,65,68	<u>As in (A) above</u>
(D) <u>Before an Unspecified Point</u>	6,9,33,39,55,62,64	<u>An Action/State Simultaneous with a Point at Pre-Past</u>
(E) <u>A Specific Past</u>	12,14,21,45,60,67,69,70	<u>As in (A) above</u>
(F) <u>After an Unspecified Point</u>	32,66	<u>An Action/State Simultaneous with a Point at Post-Past</u>
(G) <u>Before a Past Point</u>	56,57,63	<u>As in (D) above</u>

TABLE 60

11. /yakūnu yaktub/ (Continuous Non-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Before an Unspecified Point</u>	1,11	a. <u>An Action/State usually going on before an Unspecified Point</u>

contd...

Table 60 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>An Unspecific Point at Non-Past</u>	8, 20, 60	b. <u>An Action/State that will be going on Before a Future Point</u> a. <u>An Action/State repeatedly going on at an Unspecified Point</u> b. <u>An Action/State going on at a Future Point</u>
(C) <u>Simultaneous Present</u>	9, 12, 17, 21, 28(Negative), 43, 48, 56, 57, 59, 61, 65, 69,	<u>An Action/State Tentatively going on at Simultaneous Present</u>
(D) <u>An Unspecified Point</u>	10, 15, 40, 53, 54, 63	a. <u>As in (Ba) above</u> b. <u>As in (Bb) above</u>
(E) <u>After an Unspecified Point</u>	18, 34, 47, 49	a. <u>An Action/State usually going on after an Unspecified Point</u> b. <u>An Action/State that will be going on after a Future Point</u>

contd...

Table 60 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(F) <u>A Specific Future Point</u>	33	<u>As in (Bb) above</u>
(G) <u>Frequency at an Unspecified Time</u>	45, 62, 64	<u>As in (Bb) above</u>

TABLE 61

12. /kāna yaktub/ (Continuous Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Simultaneous Present</u>	1, 37	<u>An Action/State that was going on at Recent Past</u>
(B) <u>Before an Unspecified Point</u>	2, 20, 31, 50, 60	<u>An Action/State that was going on at Pre-Past</u>
(C) <u>An Unspecific Past</u>	23, 25, 42, 45, 59, 63, 64, 68, 69	<u>An Action/State that was going on at a Past Point</u>
(D) <u>An Unspecified Point</u>	5, 6, 8, 10, 12, 15, 16, 18, 19, 24, 26, 28, 36, 38, 44, 49, 51, 53, 54, 65	<u>As in (C) above</u>

contd...

Table 61 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(E) <u>A Specific Past</u>	7,11,13,17,30,32, 33,40,41,43,47, 56,57,58,61,62, 66,67	<u>As in (C) above</u>

TABLE 62

13. /sayakūnu yaqra?/ (Continuous Later-Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Before an Un-specified Point</u>	1,12	<u>An Action/State that will be going on at Pre-Future</u>
(B) <u>Simultaneous Present</u>	2,25,28,44,57	<u>A State/Action Tentatively going on at Simultaneous Present</u>
(C) <u>An Unspecified Point of Time</u>	3,5,15,17,20,23, 32,35,38,39,43, 45,48,51,54,60, 63,64,68	<u>An Action/State that will be going on at a Future Point</u>

contd...

Table 62 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(D) <u>After an Un-specified Point</u>	9, 29, 34, 37, 49, 51, 62	<u>An Action/State that will be going on at Post-Future</u>
(E) <u>A Specific Future</u>	10, 11, 16, 21, 33, 40, 55, 58, 59, 66, 67	<u>As in (C) above</u>
(F) <u>At Daytime Period</u>	27, 61	<u>An Action/State Tentatively going on at Contemporaneous Present</u>
(G) <u>An Unspecified Frequency</u>	53	<u>An Action/State that will be Frequently Repeated in the Future</u>
(H) <u>A Future Duration</u>	56, 69	<u>An Action/State going on at a Future Period of Time</u>

TABLE 63

14. /kāna sayakūnu yaktub/ (Continuous Later-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point</u>	<u>a.2, 17</u>	<u>a. An Action/State that was to be going on at Post-Past</u>

contd...

Table 63 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
	<u>b.10,55,60,61,68</u> (with <u>law</u> , <u>lawlā</u> , or <u>law</u> <u>lam</u>)	<u>b. An Action/State</u> <u>Hypothetically</u> <u>going on at Past</u>
(B) <u>An Unspecific</u> <u>Future</u>	9	<u>An Action/State</u> <u>Hypothetically</u> <u>going on in the</u> <u>Future</u>
(C) <u>Before an Un-</u> <u>specified Point</u>	12,37,48,64	a. <u>Hypothetically</u> <u>going on at Pre-</u> <u>Past</u> b. <u>Hypothetically</u> <u>going on at Pre-</u> <u>Future</u>
(D) <u>A Specific</u> <u>Past</u>	<u>a.15,70</u> <u>b.62,66</u> (with <u>lawlā</u>)	a. <u>As in (Aa) above</u> b. <u>As in (Ab) above</u>
(E) <u>After an Un-</u> <u>specified Point</u>	38,65,67	a. <u>As in (Aa) above</u> b. <u>Hypothetically</u> <u>going on at Post-</u> <u>Past</u> c. <u>Hypothetically</u> <u>going on at Post-</u> <u>Future</u>

contd...

Table 63 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(F) <u>Simultaneous Present</u>	43, 58, 59, 69	<u>An Action/State Hypothetically going on at Simultaneous Present</u>
(G) <u>After an Unspecific Past Point</u>	63	<u>As in (Aa) above</u>

TABLE 64

15. /sayakūnu sāfar/ (Pre-Later Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point of Time</u>	1, 2, 13, 21, 23, 24, 25, 30, 32, 36, 39, 46, 53, 61, 63	<u>An Action/State that will Precede a Future Point of Time</u>
(B) <u>Before an Unspecified Point</u>	3, 33, 38, 55, 65, 67	<u>As in (A) above</u>
(C) <u>Daytime Period</u>	5, 28, 64	<u>An Action/State that will Precede a Point at Near Future</u>

contd...

Table 64 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(D) <u>After an Un-specified Point of Time</u>	8,18,43,49	<u>As in (A) above</u>
(E) <u>Simultaneous Present</u>	12,15,27,44,58,68	<u>A Tentative Action/State at Recent Past</u>
(F) <u>An Unspecific Future</u>	20	<u>As in (A) above</u>
(G) <u>A Specific Future</u>	40,56,59	<u>As in (A) above</u>
(H) <u>An Unspecific Non-Past</u>	45,57,70	<u>As in (A) above</u>

TABLE 65

16. /kāna sayakūnu sāfar/ (Pre-Later Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point</u>	8,9,12,37,53,57	a. <u>An Action/State that was Planned to take place Before a Point at Post-Past (Past Point of Reference)</u>

contd...

Table 65 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
		b. <u>An Action/State that was to take place Before a Point at Post-Past, but did not (i.e. Hypotheticality)</u>
(B) <u>Before an Un-specified Point</u>	1,68 (with <u>lawlā</u>)	<u>As in (Ab) above</u>
(C) <u>A Specific Future</u>	10	<u>Hypothetical Pre-Future</u>
(D) <u>A Specific Past</u>	a. 11,48,70 b. 22,58,60,62,66 (with <u>law</u> or <u>lawlā</u>)	a. <u>As in (Aa) or (Ab) above</u> b. <u>As in (Ab) above</u>
(E) <u>Simultaneous Present</u>	15,55,61,65	<u>A Hypothetical Action that took place Before a Point at Simultaneous Present (i.e. at Recent Past)</u>
(F) <u>Daytime Period</u>	33 (with <u>lawlā</u>)	<u>As in (E) above</u>

contd...

Table 65 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(G) <u>An Unspecific Past</u>	38	<u>As in (Aa) or (Ab) above</u>
(H) <u>After an Unspecified Point</u>	63, 67 (with <u>lawlā</u>)	<u>As in (Ab) above</u>

TABLE 66

17. /satakūnu nā?ima/ (Simultaneous Later-Present)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Simultaneous Present</u>	1, 6, 15, 28, 37, 39, 57	<u>An Action/State Tentatively Simultaneous with the Moment of Speech</u>
(B) <u>An Unspecified Point of Time</u>	2, 7, 9, 10, 11, 12, 13, 14, 17, 18, 21, 22, 24, 26, 27, 29, 30, 31, 32, 34, 35, 36, 38, 40, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 56, 58, 60, 65, 66, 68	<u>An Action/State Simultaneous with a Future Point</u>
(C) <u>A Specific Non-Past</u>	3, 61, 69	<u>As in (B) above</u>

contd...

Table 66 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(D) <u>Daytime Period</u>	5	<u>An Action/State Simultaneous with Near Future</u>
(E) <u>A Specific Future</u>	8,20,33,62	<u>As in (B) above</u>
(F) <u>After an Un-specified Point</u>	16,53,63	<u>An Action/State Simultaneous with a Point at Post-Future</u>
(G) <u>Before an Un-specified Point</u>	23	<u>An Action/State Simultaneous with a Point at Pre-Future</u>
(H) <u>A Duration of Time(End Specified)</u>	59	<u>An Action/State Simultaneous with a Future Period of Time</u>

TABLE 67

18./kāna sayakūnu nā'im/ (Simultaneous Later-Past)

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecified Point of Time</u>	<u>a.1,9,15,23,37, 40,43</u>	<u>a.1. Simultaneous with Post-Past (i.e. Past viewed from Past)</u>

contd...

Table 67 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
		<u>2. Hypothetically Simultaneous with Post-Past</u>
(B) <u>After an Un-specified Point of Time</u>	<u>b.60,66 (lawlā)</u> <u>a.2,48,63</u>	<u>b.As in (Aa2) above</u> <u>a.As in (Aa1) or (Aa2) above</u>
(C) <u>After an Un-specific Past Point</u>	<u>b.17,67 (lawlā)</u> <u>8</u>	<u>b.As in (Aa2) above</u> <u>As in (Aa1) or (Aa2) above</u>
(D) <u>After a Specific Past</u>	<u>12,38</u>	<u>As in (Aa1) or (Aa2) above</u>
(E) <u>Simultaneous Present</u>	<u>11,55,58,59,61,64,68,69</u>	<u>Hypothetically Simultaneous with the Moment of Speech</u>
(F) <u>A Specific Past</u>	<u>62(with lawlā)</u>	<u>As in (Aa2) above</u>
(G) <u>A Specific Future</u>	<u>65</u>	<u>A Hypothetical Simultaneous Future</u>

TABLE 68

19./sayakūnu mafhūm/(Simultaneous Later-Present(Passive))

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>Simultaneous Present</u>	<u>1,2,5,7,12,23,26,28,37,38,44,49,54</u>	<u>An Action/State Simultaneous with the Moment of Speech or with Near Future</u>

contd...

Table 68 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>After an Un-specified Point</u>	8,9,39,41,53,55,57,61,62,64,67,70	<u>An Action/State Simultaneous with Post-Future</u>
(C) <u>A Specific Future</u>	10,19,21,24,56,58,60	<u>An Action/State Simultaneous with a Future Point</u>
(D) <u>An Unspecified Point of Time</u>	11,13,14,15,16,17,18,27,29,30,32,40,43,44,46,47,48,50,52,68,69	<u>As in (C) above</u>
(E) <u>After a Specific Future</u>	59,63	<u>As in (B) above</u>

TABLE 69

20. /kāna sayakūnu mahzūm/ (Simultaneous Later-Past
(Passive))

Adv. Category	Representative Sentence(s)	Corresponding Function
(A) <u>An Unspecific Past Point</u>	<u>a.1,2,10,17,20,48</u>	a.1. <u>An Action/State thought of as simultaneous with a Post-Past(i.e. Past viewed from Past)</u>

contd...

Table 69 contd.

Adv. Category	Representative Sentence(s)	Corresponding Function
(B) <u>Simultaneous Present</u>	b.56 (<u>lawlā</u>) 8,22,63,67,69	2. <u>Hypothetically Simultaneous with Post-Past</u> b. <u>As in (Aa2) above</u> A <u>Hypothetical Action/State seen as Simultaneous with the Moment of Speech</u>
(C) <u>An Unspecified Point of Time</u>	a.15,32,37 b.33,55,61,62 (with <u>lawlā</u>)	a. <u>As in (Aa1) or (Aa2) above</u> b. <u>As in (Aa2) above</u>
(D) <u>A Specific Past</u>	a.27,58,60,64 (with <u>lawlā</u>) b.70	a. <u>As in (Aa2) above</u> b. <u>As in (Aa1) or (Aa2) above</u>
(E) <u>After an Unspecified Point</u>	a.38 b.43,68 with <u>lawlā</u>)	a. <u>As in (Aa1) or (Aa2) above</u> b. <u>As in (Aa2) above</u>
(F) <u>Contemporaneous Present</u>	65	A <u>Hypothetical Action/State at Contemporaneous Present</u>

II. Test Two

In the following tables on the analysis of the data of Test Two, numbers are used to represent various Arabic tenseemes. Numbers are assigned to different tenseemes according to the following numerical code:

TABLE 70

Number	Representative Tenseme*
1	/yaf9a1/
2	/fa9a1/
3	/yakūnu fa9a1/
4	/kāna fa9a1/
5	/sayaf9a1/, /sawfa yaf9a1/
6	/kāna sayaf9a1/
7	/yakūnu fā9il/
8	/kāna fā9il/
9	/yakūnu maf9ūl/
10	/kāna maf9ūl/
11	/yakūnu yaf9a1/
12	/kāna yaf9a1/
13	/sayakūnu yaf9a1/
14	/kāna sayakūnu yaf9a1/
15	/sayakūnu fa9a1/
16	/kāna sayakūnu fa9a1/
17	/sayakūnu fā9il/
18	/kāna sayakūnu fā9il/
19	/sayakūnu maf9ūl/
20	/kāna sayakūnu maf9ūl/

* See the twenty tables of Test One for examples of actual Arabic tenseemes.

TABLE 71

1. Formal Cue: /ʔana (qaraʔ) hādha lkitāb fi lmādi/

'I (read) this book in the past.'

Represented Temporal Category: General Past

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	2	25.	2	48.	2
3.	2	26.	2	49.	2
4.	2	27.	2	50.	2
5.	2	28.	2	51.	2
6.	2	29.	2	52.	2
7.	2	30.	2	53.	4
8.	2	31.	4	54.	2
9.	2	32.	2	55.	2
10.	2	33.	2	56.	2
11.	2	34.	2	57.	2
12.	2	35.	4	58.	2
13.	2	36.	2	59.	2
14.	2	37.	2	60.	2
15.	2	38.	2	61.	2
16.	2	39.	2	62.	2
17.	2	40.	2	63.	2
18.	2	41.	2	64.	2
19.	2	42.	2	65.	2
20.	2	43.	2	66.	2
21.	2	44.	2	67.	2
22.	2	45.	2	68.	2
23.	2	46.	2		

TABLE 72

2. Formal Cue: /ʔabi (dhahab) ʔila ssīnama kulla ʔusbū9
 9indamā kāna shābban/ 'My father (went) to
 the cinema every week when he was young.'

Represented Temporal Category: General Past + Frequency

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	12	24.	12	47.	12
2.	- *	25.	-	48.	12
3.	12	26.	12	49.	-
4.	12	27.	-	50.	-
5.	12	28.	12	51.	-
6.	-	29.	12	52.	-
7.	12	30.	12	53.	12
8.	-	31.	12	54.	12
9.	12	32.	12	55.	-
10.	-	33.	-	56.	12
11.	12	34.	-	57.	12
12.	12	35.	-	58.	12
13.	-	36.	-	59.	12
14.	-	37.	12	60.	12
15.	-	38.	12	61.	12
16.	12	39.	12	62.	12
17.	-	40.	12	63.	12
18.	12	41.	-	64.	12
19.	12	42.	12	65.	12
20.	-	43.	-	66.	12
21.	-	44.	12	67.	12
22.	-	45.	12	68.	12
23.	12	46.	12		

* Blanks in this table, as well as in the following ones, represent informants who have left out the required tenseme uncorrected or who have mistakenly changed the temporal adverbial in the sentence provided and have consequently produced sentences that do not meet the requirements of this test.

TABLE 73

3. Formal Cue: /ʔinnahu (jalas) bilḥadīqa 9indamā marartu
9alā dārihi bilʔams/

'He (sat) in the garden when I passed by
his house yesterday.'

Represented Temporal Category: Simultaneous Present

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	8	24.	-	47.	8
2.	-	25.	-	48.	8
3.	4	26.	8	49.	-
4.	8	27.	4	50.	2
5.	-	28.	8	51.	8
6.	12	29.	-	52.	2
7.	8	30.	8	53.	8
8.	-	31.	8	54.	8
9.	8	32.	8	55.	8
10.	-	33.	-	56.	8
11.	8	34.	-	57.	12
12.	8	35.	12	58.	8
13.	2	36.	2	59.	8
14.	-	37.	12	60.	8
15.	12	38.	8	61.	8
16.	-	39.	-	62.	8
17.	-	40.	2	63.	12
18.	8	41.	8	64.	8
19.	8	42.	8	65.	12
20.	2	43.	-	66.	8
21.	2	44.	12	67.	8
22.	2	45.	-	68.	8
23.	8	46.	8		

TABLE 74

4. Formal Cue: /qāla biʔannahu (sāfar) ba9da takharrujihi
lawlā wafāt wālidihi/

'He said that he (travelled) after his
graduation but for the death of his father.'

Represented Temporal Category: Later Past (Unfulfilled)

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	5	24.	-	47.	6
2.	-	25.	5	48.	5
3.	5	26.	5	49.	5
4.	5	27.	5	50.	-
5.	-	28.	5	51.	5
6.	5	29.	5	52.	5
7.	5	30.	5	53.	5
8.	5	31.	-	54.	6
9.	5	32.	5	55.	8
10.	5	33.	5	56.	6
11.	5	34.	5	57.	6
12.	5	35.	5	58.	16
13.	5	36.	5	59.	5
14.	-	37.	5	60.	5
15.	5	38.	5	61.	8
16.	-	39.	5	62.	16
17.	-	40.	5	63.	5
18.	5	41.	5	64.	16
19.	5	42.	5	65.	-
20.	5	43.	5	66.	-
21.	5	44.	6	67.	-
22.	-	45.	5	68.	6
23.	16	46.	5		

TABLE 75

5. Formal Cue: /naḥnu (sami9a) hādhihi lʔughniya kathīran
hādhihi lʔayyām/

'We (heard) this song a lot these days.'

Represented Temporal Category: Current Present

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	1	24.	1	47.	-
2.	1	25.	1	48.	1
3.	1	26.	1	49.	1
4.	1	27.	1	50.	1
5.	1	28.	1	51.	1
6.	1	29.	-	52.	-
7.	1	30.	1	53.	1
8.	1	31.	1	54.	1
9.	1	32.	1	55.	1
10.	-	33.	1	56.	1
11.	1	34.	1	57.	1
12.	-	35.	1	58.	1
13.	-	36.	5	59.	1
14.	1	37.	1	60.	1
15.	1	38.	1	61.	1
16.	1	39.	1	62.	1
17.	1	40.	1	63.	1
18.	1	41.	1	64.	1
19.	1	42.	1	65.	1
20.	1	43.	1	66.	1
21.	1	44.	1	67.	1
22.	1	45.	1	68.	1
23.	1	46.	1		

TABLE 76

6. Formal Cue: /?ana (shāhad) hādha lfilim marratayn
qabla l?ān/

'I (saw) this film twice before now.

Represented Temporal Category: Earlier Present

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	2	25.	2	48.	2
3.	2	26.	2	49.	2
4.	2	27.	2	50.	2
5.	2	28.	2	51.	2
6.	—	29.	2	52.	2
7.	2	30.	2	53.	4
8.	2	31.	4	54.	2
9.	2	32.	2	55.	2
10.	2	33.	2	56.	2
11.	2	34.	2	57.	2
12.	2	35.	4	58.	2
13.	2	36.	2	59.	2
14.	2	37.	2	60.	2
15.	2	38.	2	61.	2
16.	4	39.	2	62.	2
17.	2	40.	2	63.	2
18.	2	41.	2	64.	2
19.	2	42.	2	65.	4
20.	2	43.	2	66.	4
21.	2	44.	2	67.	2
22.	2	45.	2	68.	2
23.	2	46.	2		

TABLE 77

7. Formal Cue: /ʔalʔatfāl (kabur) bisur9a 9ādatan/

'Children (grew up) quickly usually.'

Represented Temporal Category: General Present

(All Time)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	1	24.	1	47.	1
2.	-	25.	1	48.	1
3.	1	26.	1	49.	1
4.	1	27.	1	50.	-
5.	1	28.	1	51.	1
6.	1	29.	1	52.	-
7.	1	30.	1	53.	1
8.	1	31.	1	54.	1
9.	1	32.	1	55.	1
10.	1	33.	1	56.	1
11.	1	34.	1	57.	1
12.	1	35.	1	58.	1
13.	1	36.	1	59.	1
14.	1	37.	1	60.	1
15.	1	38.	1	61.	1
16.	-	39.	1	62.	1
17.	1	40.	1	63.	1
18.	1	41.	1	64.	1
19.	-	42.	1	65.	1
20.	1	43.	1	66.	1
21.	1	44.	1	67.	1
22.	1	45.	-	68.	1
23.	1	46.	1		

TABLE 78

8. Formal Cue: /ʔidhā (sāfar) salīm ʔilā baghdād

bilmustaqbal faʔinnahu sayazūr lmathafa
lbaghdādi ḥatman/ 'If Salīm (travelled)
to Baghdād in the future, he will
certainly visit the Baghdadi Museum.'

Represented Temporal Category: General Future

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	2	24.	1	47.	1
2.	—	25.	2	48.	1
3.	2	26.	2	49.	2
4.	2	27.	2	50.	—
5.	2	28.	—	51.	2
6.	2	29.	2	52.	2
7.	2	30.	2	53.	2
8.	1	31.	—	54.	2
9.	2	32.	2	55.	2
10.	2	33.	—	56.	2
11.	2	34.	2	57.	2
12.	1	35.	2	58.	2
13.	2	36.	2	59.	2
14.	1	37.	1	60.	2
15.	—	38.	—	61.	2
16.	2	39.	2	62.	—
17.	2	40.	1	63.	2
18.	2	41.	2	64.	2
19.	1	42.	2	65.	2
20.	2	43.	1	66.	2
21.	2	44.	2	67.	2
22.	2	45.	2	68.	2
23.	—	46.	—		

TABLE 79

9. Formal Cue: / (sāfar) salīm ?ilā baghdād ghadan /

'Salīm (travelled) to Baghdad tomorrow.'

Represented Temporal Category: Specific Future

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	5	24.	5	47.	5
2.	1	25.	5	48.	1
3.	5	26.	—	49.	5
4.	5	27.	5	50.	5
5.	5	28.	5	51.	5
6.	5	29.	5	52.	1
7.	1	30.	5	53.	17
8.	5	31.	5	54.	5
9.	5	32.	1	55.	5
10.	5	33.	5	56.	5
11.	5	34.	—	57.	5
12.	1	35.	—	58.	5
13.	1	36.	1	59.	5
14.	1	37.	1	60.	5
15.	5	38.	5	61.	5
16.	5	39.	5	62.	5
17.	1	40.	1	63.	5
18.	5	41.	—	64.	5
19.	1	42.	5	65.	5
20.	1	43.	5	66.	5
21.	5	44.	—	67.	5
22.	1	45.	5	68.	5
23.	5	46.	5		

TABLE 80

10. Formal Cue: /law (daras) jayyidan fi 19āmi lmādi
lama rasab/

'If he (studied) hard last year, he would
not have failed.'

Represented Temporal Category: Specific Past
(Plus Hypotheticalness)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	8	25.	2	48.	2
3.	2	26.	4	49.	2
4.	2	27.	2	50.	2
5.	2	28.	4	51.	2
6.	4	29.	2	52.	2
7.	2	30.	2	53.	4
8.	12	31.	2	54.	2
9.	8	32.	2	55.	2
10.	2	33.	2	56.	2
11.	2	34.	2	57.	2
12.	2	35.	2	58.	2
13.	12	36.	2	59.	2
14.	2	37.	4	60.	4
15.	4	38.	2	61.	2
16.	4	39.	2	62.	4
17.	4	40.	2	63.	4
18.	4	41.	12	64.	4
19.	8	42.	2	65.	4
20.	2	43.	2	66.	4
21.	2	44.	4	67.	4
22.	2	45.	2	68.	4
23.	2	46.	2		

TABLE 81

11. Formal Cue: /9indamā taraktuhu bilʔams (katab) risāla
 ʔilā wālidihī ba9da qalīl. walākin yabdu
 ʔannahu qad ghayyara raʔyahu ba9da
 mughādarati/ 'When I left him yesterday,
 he (wrote) a letter to his father a short
 time later, but it seems that he changed
 his mind after my departure.'

Represented Temporal Category: Later Past

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	6	24.	2	47.	2
2.	-	25.	2	48.	2
3.	-	26.	2	49.	-
4.	6	27.	2	50.	-
5.	-	28.	-	51.	-
6.	2	29.	2	52.	1
7.	-	30.	6	53.	16
8.	-	31.	6	54.	6
9.	-	32.	1	55.	6
10.	2	33.	2	56.	6
11.	2	34.	2	57.	-
12.	-	35.	2	58.	-
13.	2	36.	1	59.	6
14.	2	37.	-	60.	16
15.	-	38.	2	61.	6
16.	-	39.	1	62.	-
17.	-	40.	-	63.	6
18.	-	41.	2	64.	6
19.	-	42.	6	65.	6
20.	-	43.	-	66.	6
21.	-	44.	-	67.	6
22.	1	45.	2	68.	6
23.	2	46.	2		

TABLE 82

12. Formal Cue: /ʔana (katab) risāla 9indamā nqata9a
 ttavyār lkahrabāʔi fi llayla lmādiya/
 'I (wrote) a letter when there was
a power-cut last night.'

Represented Temporal Category: Simultaneous Past

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	12	24.	12	47.	-
2.	-	25.	12	48.	12
3.	12	26.	12	49.	-
4.	12	27.	12	50.	-
5.	12	28.	12	51.	-
6.	-	29.	12	52.	12
7.	12	30.	12	53.	12
8.	12	31.	-	54.	12
9.	4	32.	12	55.	12
10.	-	33.	12	56.	12
11.	12	34.	12	57.	12
12.	-	35.	-	58.	12
13.	-	36.	12	59.	12
14.	-	37.	12	60.	12
15.	12	38.	-	61.	12
16.	12	39.	12	62.	12
17.	12	40.	-	63.	12
18.	12	41.	-	64.	12
19.	12	42.	-	65.	12
20.	-	43.	12	66.	12
21.	-	44.	12	67.	12
22.	-	45.	12	68.	12
23.	-	46.	12		

TABLE 83.

13. Formal Cue: /lām (sāfar) salīm ?ilā baghdād sābiqan /
 'Salīm not (travelled) to Baghdad before.'

Represented Temporal Category: Earlier Present
 (Plus Negation)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	1	24.	1	47.	1
2.	1	25.	1	48.	1
3.	1	26.	3	49.	-
4.	1	27.	1	50.	-
5.	1	28.	-	51.	1
6.	1	29.	1	52.	-
7.	1	30.	1	53.	1
8.	1	31.	1	54.	1
9.	-	32.	1	55.	1
10.	1	33.	1	56.	3
11.	1	34.	1	57.	1
12.	1	35.	1	58.	1
13.	1	36.	1	59.	1
14.	1	37.	1	60.	1
15.	1	38.	1	61.	1
16.	1	39.	1	62.	1
17.	1	40.	1	63.	1
18.	1	41.	-	64.	1
19.	1	42.	1	65.	1
20.	1	43.	1	66.	3
21.	1	44.	1	67.	1
22.	1	45.	1	68.	1
23.	1	46.	1		

TABLE 84

14. Formal Cue: /huwa lā yazāl (dhahab) ?ila ssīnama
marra wāhida kulla shahr/

'He still (went) to the cinema once a
month.'

Represented Temporal Category: General Present
 (All Time)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	1	24.	1	47.	1
2.	-	25.	1	48.	1
3.	1	26.	1	49.	1
4.	1	27.	1	50.	1
5.	1	28.	1	51.	1
6.	1	29.	1	52.	1
7.	1	30.	1	53.	1
8.	1	31.	1	54.	1
9.	-	32.	1	55.	1
10.	1	33.	1	56.	1
11.	1	34.	1	57.	1
12.	1	35.	1	58.	1
13.	1	36.	1	59.	1
14.	1	37.	1	60.	1
15.	1	38.	-	61.	1
16.	1	39.	1	62.	1
17.	1	40.	1	63.	1
18.	1	41.	1	64.	1
19.	1	42.	1	65.	1
20.	1	43.	1	66.	1
21.	1	44.	1	67.	1
22.	1	45.	1	68.	1
23.	1	46.	1		

TABLE 85

15. Formal Cue: /ʔa9taqidu ʔannanā lan najid-hu bilbayti
 9inda dhihābinā għadan liʔannahu (qara?)
 fi lmaktaba hīnadhāk/ 'I think we won't
 find him at home when we go tomorrow as
 he he (read) in the library then.'

Represented Temporal Category: Simultaneous Future

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	-	24.	-	47.	-
2.	1	25.	1	48.	5
3.	1	26.	-	49.	-
4.	13	27.	5	50.	-
5.	5	28.	1	51.	5
6.	5	29.	-	52.	-
7.	1	30.	5	53.	5
8.	1	31.	5	54.	13
9.	5	32.	-	55.	-
10.	1	33.	-	56.	13
11.	1	34.	1	57.	11
12.	-	35.	5	58.	5
13.	-	36.	1	59.	1
14.	1	37.	11	60.	13
15.	11	38.	-	61.	13
16.	1	39.	1	62.	13
17.	-	40.	1	63.	11
18.	-	41.	-	64.	5
19.	1	42.	1	65.	-
20.	1	43.	-	66.	13
21.	1	44.	-	67.	13
22.	1	45.	1	68.	13
23.	-	46.	-		

TABLE 86

16. Formal Cue: /ʔana (sami9a) hādhihi lʔughniya 9iddata
marrāt min qablu/

'I (heard) this song many times before.'

Represented Temporal Category: Earlier Present

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	2	24.	2	47.	2
2.	-	25.	4	48.	2
3.	2	26.	2	49.	2
4.	2	27.	2	50.	2
5.	2	28.	2	51.	2
6.	-	29.	2	52.	-
7.	2	30.	2	53.	4
8.	2	31.	2	54.	2
9.	-	32.	2	55.	2
10.	2	33.	2	56.	4
11.	2	34.	2	57.	4
12.	12	35.	2	58.	2
13.	2	36.	2	59.	2
14.	2	37.	2	60.	2
15.	2	38.	2	61.	2
16.	4	39.	2	62.	2
17.	2	40.	2	63.	2
18.	2	41.	-	64.	2
19.	2	42.	2	65.	2
20.	2	43.	-	66.	2
21.	2	44.	4/2	67.	2
22.	2	45.	2	68.	2
23.	2	46.	-		

TABLE 87

17. Formal Cue:/(daras) salīm fi lmaktaba tuwāla yawmi
ʔams/

'Salīm (studied) in the library all day
yesterday.'

Represented Temporal Category: Specific Past
 (Plus Duration)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	12
2.	-	25.	2	48.	2
3.	2	26.	12	49.	2
4.	2	27.	2	50.	2
5.	2	28.	12	51.	2
6.	2	29.	2	52.	-
7.	2	30.	2	53.	12
8.	12	31.	12	54.	12
9.	-	32.	2	55.	12
10.	2	33.	2	56.	12
11.	2	34.	2	57.	4
12.	2	35.	2	58.	12
13.	2	36.	2	59.	2
14.	2	37.	2	60.	12
15.	12	38.	2	61.	12
16.	12	39.	2	62.	12
17.	2	40.	2	63.	2
18.	2	41.	12	64.	12
19.	12	42.	2	65.	12
20.	2	43.	12	66.	4
21.	2	44.	12	67.	2
22.	2	45.	12	68.	2
23.	2	46.	2		

TABLE 88

18. Formal Cue: /huwa (sāfar) fi ʔayyati lahza ba9da lʔān/

'He (travelled) any moment (after) now.'

Represented Temporal Category: Later Present

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	5	24.	1	47.	-
2.	5	25.	5	48.	1
3.	5	26.	5	49.	1
4.	5	27.	5	50.	5
5.	5	28.	5	51.	5
6.	5	29.	5	52.	1
7.	1	30.	-	53.	7
8.	5	31.	5	54.	1
9.	5	32.	1	55.	1
10.	5	33.	5	56.	1
11.	5	34.	1	57.	5
12.	5	35.	5	58.	1
13.	5	36.	5	59.	5
14.	1	37.	5	60.	5
15.	5	38.	5	61.	1
16.	1	39.	5	62.	-
17.	5	40.	5	63.	5
18.	5	41.	5	64.	5
19.	1	42.	5	65.	5
20.	1	43.	1	66.	1
21.	1	44.	1	67.	5
22.	1	45.	5	68.	5
23.	1	46.	1		

TABLE 89

19. Formal Cue: / (sāfar) ʔakhi ʔilā baghdād qabla safari
ʔilayhā fi lʔusbū9i lmādi /

'My brother (travelled) to Baghdad before
I travelled there last week.'

Represented Temporal Category: Earlier Past

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	—	25.	2	48.	2
3.	2	26.	2	49.	—
4.	2	27.	2	50.	2
5.	2	28.	4	51.	2
6.	2	29.	2	52.	2
7.	2	30.	2	53.	4
8.	2	31.	4	54.	4
9.	—	32.	2	55.	4
10.	2	33.	2	56.	4
11.	2	34.	2	57.	4
12.	—	35.	2	58.	4
13.	2	36.	2	59.	2
14.	2	37.	4	60.	4
15.	2	38.	2	61.	4
16.	—	39.	2	62.	4
17.	4	40.	2	63.	2
18.	4	41.	2	64.	4
19.	4	42.	2	65.	4
20.	2	43.	2	66.	4
21.	2	44.	2/4	67.	2
22.	2	45.	2	68.	4
23.	2	46.	2		

TABLE 90

20. Formal Cue: /qāla biʔanna lmuḥāḍara (ntahā) lʔān lawlā
 ʔasʔilatu lhādirīn lkathīra/
 '(He) said that the lecture (finished) now
 but for the many questions from the
 audience.'

Represented Temporal Category: Simultaneous Present
 (Plus Hypotheticalness)

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	12	24.	—	47.	—
2.	—	25.	—	48.	8
3.	—	26.	12	49.	—
4.	6	27.	—	50.	—
5.	—	28.	6	51.	—
6.	5	29.	—	52.	—
7.	5	30.	—	53.	8
8.	—	31.	12	54.	4
9.	—	32.	5	55.	4
10.	—	33.	—	56.	4
11.	—	34.	—	57.	3
12.	5	35.	—	58.	4
13.	—	36.	—	59.	4
14.	—	37.	15	60.	—
15.	—	38.	—	61.	4
16.	4	39.	—	62.	4
17.	—	40.	—	63.	6
18.	—	41.	—	64.	4
19.	—	42.	—	65.	6
20.	—	43.	—	66.	3
21.	—	44.	—	67.	4
22.	—	45.	—	68.	4
23.	—	46.	—		

TABLE 91

21. Formal Cue: /zaki (dhahab) ?ila ssīnama ma9i ba9da
nihāyati l?imtihān ghadan/

'Zeki (went) to the cinema with me after
the end of the examination tomorrow.'

Represented Temporal Category: Later Future

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	5	24.	5	47.	5
2.	5	25.	5	48.	5
3.	1	26.	5	49.	5
4.	5	27.	5	50.	5
5.	5	28.	5	51.	5
6.	5	29.	5	52.	1
7.	5	30.	5	53.	5
8.	5	31.	1	54.	5
9.	5	32.	5	55.	5
10.	5	33.	5	56.	5
11.	5	34.	1	57.	5
12.	5	35.	1	58.	5
13.	-	36.	5	59.	5
14.	1	37.	5	60.	5
15.	5	38.	5	61.	5
16.	5	39.	5	62.	5
17.	17	40.	5	63.	5
18.	5	41.	-	64.	5
19.	1	42.	5	65.	5
20.	5	43.	5	66.	5
21.	1	44.	5	67.	5
22.	1	45.	5	68.	5
23.	5	46.	5		

TABLE 92

22. Formal Cue: /ʔana (zār) lma9rid. yawmammā bilʔusbū9i
lqādim/

'I (visited) the exhibition one day next
week.'

Represented Temporal Category: General Future

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	5	24.	5	47.	5
2.	5	25.	5	48.	-
3.	-	26.	5	49.	5
4.	-	27.	-	50.	-
5.	1	28.	5	51.	5
6.	5	29.	5	52.	1
7.	5	30.	5	53.	5
8.	5	31.	1	54.	1
9.	1	32.	5	55.	5
10.	5	33.	-	56.	5
11.	-	34.	1	57.	5
12.	5	35.	-	58.	5
13.	5	36.	5	59.	5
14.	1	37.	5	60.	5
15.	5	38.	5	61.	5
16.	5	39.	-	62.	5
17.	-	40.	5	63.	-
18.	5	41.	-	64.	5
19.	5	42.	-	65.	5
20.	5	43.	-	66.	5
21.	5	44.	5	67.	5
22.	1	45.	5	68.	5
23.	-	46.	5		

TABLE 93

23. Formal Cue: /(?anhā) salīm lkitāb oabla ssā9a lkhāmisa
ghadan/

'Salīm (finished) the book before five
o'clock tomorrow.'

Represented Temporal Category: Earlier Future

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	5	24.	5	47.	5
2.	5	25.	5	48.	1
3.	1	26.	5	49.	-
4.	5	27.	5	50.	5
5.	1	28.	15	51.	5
6.	-	29.	5	52.	1
7.	1	30.	5	53.	15
8.	5	31.	1	54.	5
9.	5	32.	5	55.	5
10.	-	33.	5	56.	5
11.	1	34.	-	57.	5
12.	5	35.	1	58.	5
13.	-	36.	5	59.	5
14.	1	37.	-	60.	1
15.	1	38.	5	61.	5
16.	-	39.	-	62.	5
17.	-	40.	5	63.	5
18.	5	41.	-	64.	5
19.	1	42.	-	65.	5
20.	5	43.	-	66.	15
21.	1	44.	5	67.	5
22.	1	45.	5	68.	5
23.	5	46.	5		

TABLE 94

24. Formal Cue: /salīm (qara?) bilmaktaba tuwāla yawmi
lghad/

'Salīm (read) in the library all day
tomorrow.'

Represented Temporal Category: Specific Future
 (Plus Duration)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	5	24.	5	47.	-
2.	1	25.	5	48.	1
3.	5	26.	5	49.	-
4.	5	27.	5	50.	5
5.	5	28.	5	51.	5
6.	5	29.	5	52.	-
7.	1	30.	5	53.	5
8.	5	31.	5	54.	5
9.	-	32.	1	55.	5
10.	-	33.	5	56.	5
11.	5	34.	5	57.	11
12.	-	35.	1	58.	5
13.	-	36.	5	59.	5
14.	1	37.	5	60.	5
15.	5	38.	5	61.	5
16.	-	39.	-	62.	5
17.	1	40.	5	63.	5
18.	5	41.	-	64.	5
19.	-	42.	-	65.	5
20.	1	43.	5	66.	5
21.	1	44.	5	67.	5
22.	1	45.	5	68.	5
23.	1	46.	5		

TABLE 95

25. Formal Cue: /hiya (katab) risāla ?ilā ?ummiḥā l?ān/

'She (wrote) a letter to her mother now.'

Represented Temporal Category: Simultaneous Present/
Recent Past / Near
Future

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	1	24.	1	47.	2
2.	5	25.	2	48.	1
3.	1	26.	2	49.	5
4.	1	27.	1	50.	2
5.	1	28.	1	51.	1
6.	1	29.	2	52.	1
7.	1	30.	5	53.	1
8.	1	31.	1	54.	1
9.	2	32.	1	55.	1
10.	2	33.	5	56.	5
11.	1	34.	2	57.	1
12.	1	35.	1	58.	1
13.	2	36.	5	59.	1
14.	1	37.	1	60.	5
15.	1	38.	5	61.	1
16.	-	39.	1	62.	1
17.	1	40.	2	63.	1
18.	1	41.	2	64.	1
19.	1	42.	1	65.	1
20.	1	43.	1	66.	1
21.	1	44.	1	67.	1
22.	1	45.	1	68.	1
23.	1	46.	1		

TABLE 96

26. Formal Cue:/(kabura) hādhihi shshajara kathīran
fi ssana lmādiya/

'This tree (grew) a great deal last year.'

Represented Temporal Category: Specific Past

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	2	25.	2	48.	2
3.	2	26.	2	49.	2
4.	2	27.	2	50.	2
5.	2	28.	—	51.	2
6.	2	29.	2	52.	2
7.	2	30.	2	53.	4
8.	2	31.	2	54.	2
9.	2	32.	2	55.	2
10.	2	33.	2	56.	2
11.	2	34.	2	57.	2
12.	2	35.	2	58.	2
13.	2	36.	2	59.	2
14.	2	37.	2	60.	4
15.	2	38.	2	61.	2
16.	2	39.	2	62.	2
17.	4	40.	2	63.	2
18.	2	41.	2	64.	2
19.	2	42.	2	65.	2
20.	2	43.	2	66.	2
21.	2	44.	2	67.	2
22.	2	45.	2	68.	2
23.	2	46.	2		

TABLE 97

27. Formal Cue: / (maṛiḍa) salīm tuwāla lʔushū9i lmādi/

'Salīm (was sick) all last week.'

Represented Temporal Category: Specific Past
(Plus Duration)

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	8	24.	2	47.	2
2.	8	25.	2	48.	8
3.	2	26.	8	49.	8
4.	2	27.	2	50.	2
5.	2	28.	8	51.	2
6.	8	29.	2	52.	2
7.	2	30.	8	53.	8
8.	2	31.	8	54.	2
9.	2	32.	2	55.	8
10.	2	33.	2	56.	8
11.	2	34.	2	57.	8
12.	2	35.	2	58.	8
13.	2	36.	2	59.	2
14.	2	37.	2	60.	4
15.	2	38.	2	61.	8
16.	2	39.	2	62.	8
17.	2	40.	2	63.	2
18.	2	41.	8	64.	2
19.	4	42.	2	65.	2
20.	2	43.	8	66.	8
21.	2	44.	4	67.	8
22.	2	45.	2	68.	8
23.	8	46.	2		

TABLE 98

28. Formal Cue: /salīm (qara?) kathīran hādhihi lʔavyām/

'Salīm (read) a loy these days.'

Represented Temporal Category: Contemporaneous Present

Sentence No.	Tense No.	Sentence No.	Tense No.	Sentence No.	Tense No.
1.	1	24.	1	47.	1
2.	1	25.	1	48.	1
3.	1	26.	-	49.	-
4.	1	27.	1	50.	1
5.	1	28.	1	51.	1
6.	1	29.	1	52.	1
7.	1	30.	1	53.	1
8.	1	31.	1	54.	1
9.	-	32.	1	55.	1
10.	1	33.	1	56.	1
11.	1	34.	1	57.	1
12.	1	35.	1	58.	1
13.	-	36.	1	59.	1
14.	1	37.	1	60.	1
15.	1	38.	1	61.	1
16.	1	39.	1	62.	1
17.	1	40.	1	63.	1
18.	1	41.	-	64.	1
19.	1	42.	1	65.	-
20.	1	43.	-	66.	1
21.	1	44.	1	67.	1
22.	1	45.	1	68.	1
23.	1	46.	1		

TABLE 99

29. Formal Cue: / (sāfar) nabīl ?ilā landan yawmi ?ams/

'Nabīl (travelled) to London yesterday.'

Represented Temporal Category: Specific Past

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	-	25.	2	48.	2
3.	2	26.	2	49.	2
4.	2	27.	2	50.	2
5.	2	28.	8	51.	2
6.	2	29.	2	52.	-
7.	2	30.	2	53.	4
8.	2	31.	2	54.	2
9.	2	32.	2	55.	2
10.	2	33.	2	56.	2
11.	2	34.	2	57.	2
12.	2	35.	2	58.	2
13.	2	36.	2	59.	2
14.	2	37.	2	60.	4
15.	2	38.	2	61.	2
16.	2	39.	2	62.	2
17.	2	40.	2	63.	2
18.	2	41.	2	64.	-
19.	4	42.	2	65.	2
20.	2	43.	2	66.	2
21.	2	44.	2	67.	2
22.	2	45.	2	68.	2
23.	2	46.	2		

TABLE 100

30. Formal Cue: /ʔinna lbāb (kusir) qabla wusūli ʔila
ddāri bilʔams/

'The door (was broken) before my arrival
at the house yesterday.'

Represented Temporal Category: Earlier Past

Sentence No.	Tenseme No.	Sentence No.	Tenseme No.	Sentence No.	Tenseme No.
1.	2	24.	2	47.	2
2.	2	25.	2	48.	10
3.	2	26.	4	49.	2
4.	2	27.	2	50.	2
5.	2	28.	10	51.	2
6.	2	29.	2	52.	2
7.	2	30.	2	53.	2
8.	2	31.	2	54.	4
9.	2	32.	2	55.	4
10.	2	33.	2	56.	4
11.	2	34.	2	57.	4
12.	-	35.	2	58.	2
13.	2	36.	2	59.	2
14.	2	37.	4	60.	2
15.	2	38.	2	61.	4
16.	4	39.	2	62.	4
17.	2	40.	4	63.	2
18.	2	41.	2	64.	4
19.	4	42.	2	65.	4
20.	2	43.	2	66.	10
21.	2	44.	4	67.	10
22.	2	45.	2	68.	4
23.	2	46.	2		

(D) ConclusionsI. Conclusions Drawn from Data-Analysis of Test One

Tables 50 - 69 reported earlier for the data-analysis of Test One could all be summarized in one comprehensive table. In this unified table, all similar functions given in the twenty tables mentioned above will be listed only once. Then for every function, all the tensemes that were shown to indicate it in the twenty tables will be given. Moreover, the frequency of each tenseme in representing a particular function will also be given.

TABLE 101

A UNIFIED TABLE ON THE FUNCTIONS
OF ARABIC TENSEMES

The Function	The Representative Tenseme(s) *	Number of Occurrences
To indicate 1. An Action/State taking place at Simultaneous Present	1	22

contd...

*Numbers in this column represent actual Arabic tensemes in the same sequence in which they have been given in Tables 50 - 69.

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
2. A General Habit or Fact (Seen as Timeless)	1	23
3. An Action/State that will Take Place or will be Going on at a Future Point/Period of Time	1 + 5 + 9 + 11 + 13 + 17 + 19	+2+58+31+11 +32+49+28
4. An Action/State that took place or was Going on at a Point/Period in the Past	2 + 8 + 10 + 12	52 + 46 + 42 + 47
5. An Activity Continuing Up to Simultaneous Present	1 + 2	2 + 1
6. An Action/State that took place or was Going on at a Point at Recent Past	2 + 4 + 10 + 12	3 + 4 + 2 + 2

contd...

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
7. An Action/State that took place or was Going on Before a Point in the Past	2 + 4 + 8 + 10 + 12	4 + 48 + 2 + 10 + 5
8. A Tentative Pre-Future Action/State	3	29
9. A Tentative Pre-Past Action/State	3	6
10. An Action/State that Frequently takes Place or is Going On <u>Before</u> a Point at an Unspecified Time	3 + 7 + 9 + 11	27 + 5 + 3 + 2
11. An Action/State that will take place or will be Going On <u>After</u> a Point in the Future	5 + 7 + 9 + 11 + 13 + 17 + 19	8 + 3 + 7 + 4 + 7 + 3 + 14

contd...

Table 101 contd.

The Function	The Representative Tense(s)	Numbers of Occurrences
12. An Action/State that will take place or will be Going on <u>Before</u> a Point in the Future	5 + 7 + 9 + 11 + 13 + 15 + 17	2 + 5 + 3 + 2 + 2 + 3 + 2 + 1
13. An Action/State that will take place or will be Going on at Near Future	5 + 17	1 + 1
14. An Action/State that took place or was taking place <u>After</u> a Point in the Past (Past Point of Reference)	8 + 10 + 14 + 18 + 20	1 + 2 + 8 + 13 + 12
15. A Hypothetical Action/State that took place or was Going on in the Past	4 + 6 + 14	2 + 11 + 7

contd...

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
X 16.A Hypothetical Action/State that will take place or will be Going on in the Future	6 + 14 + 18	11 + 1 + 1
17.A Hypothetical Action/State that took place or was Going on <u>Before</u> a Point in the Past	6 + 14	2 + 4
18.A Hypothetical Action/State that will take place or will be Going on <u>Before</u> a Point in the Future	6 + 14 + 16	2 + 4 + 1
19.A Hypothetical Action/State taking place at Simul- taneous Present	6 + 14 + 18 + 20	2 + 4 + 8 + 5

contd...

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
20.A Hypothetical Action/State taking Place at Contempo- raneous Present	6 + 20	1 + 1
21.A Repeated Action/ State that takes place or is Going on Simultaneously with an Unspecified Point	7 + 9 + 11	44 + 26 + 12
22.A Tentative Action/ State Simultaneous with a Point/Period at Future	7	38
23.A Tentative Action/ State taking Place at Simultaneous Present	7 + 9 + 11 + 13 + 17	4 + 6 + 13 5 + 7
24.An Action/State that Frequently takes place or is Going on <u>After</u> an Unspecified Point (i.e. at all Times)	7 + 9 + 11	3 + 7 + 4

contd....

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
25. An Action/State that will be Frequently Repeated in the Future	13	1
26. A Hypothetical Action/State that took place or was Going on <u>After</u> a Point in the Past (Past Point of Reference)	14 + 6 + 18 + 20	3 + 3 + 18 + 23
27. A Hypothetical Action/State that will take place or will be Going on <u>After</u> a Point in the Future	6 + 14	3 + 3
28. A Tentative Action/State at Recent Past	3 + 15	9 + 6

contd...

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
29.A Tentative Action/ State that was Planned to take place or to be Going on <u>Before</u> a Point at Post-Past (Past Point of Refer- ence)	16	1 10
30.A Hypothetical Action/State that took place or Was Going on at Recent Past	16	5
31.A Hypothetical Action/State that took place or Was Going on <u>Before</u> a Point at Post-Past	16	19
32.An Action/State taking Place at Simultaneous Present or Near Future	19	13

contd...

Table 101 contd.

The Function	The Representative Tense(s)	Number of Occurrences
33.A Tentative Action/ State that was to take place or was to be Going on <u>After</u> a Point in the Past	6	9
34.A Tentative Action/ State in the Past	3 + 6	29 + 3
35.A Tentative Action/ State at Contemporaneous Present	13	2
36.An Action/State that will take place or will be Going on <u>Before</u> a Point at Near Future	15	3

An examination of Table 101 above will reveal many important features in the structure of the Arabic tense system. One very obvious phenomenon is the two-way redundancy that can be seen everywhere in the

above-mentioned table. By this is meant that the same function can be formally indicated in Arabic by various tenseemes and that any one tenseme can indicate various different functions. Redundancy seems to be a characteristic of the tense system of many human languages as William Bull has pointed out. There rarely seems to exist a one-to-one relationship between tenseemes and functions in any tense system.

Another relevant observation that can be made from Table 101 is that compound and complex tenseemes with active participles tend to co-occur with their corresponding tenseemes with passive participles in the majority of cases. Tenseemes 7 and 9, for example appear together in most cases and so do the pairs of tenseemes 17 - 19, 8 - 10, and 18 - 20. This, as can be seen more clearly from Table 102 below, means that in each case the two members of any of the above-mentioned pairs are used to fulfil similar ^{fun}actions in the Arabic tense system. The very few cases where one member of a pair appears but not the other may be due to the limited size of the corpus. A larger sample would most probably show full correspondence. It can thus be concluded from this, as well as from the temporal analysis of such tenseemes given on page 518, that the differences between any two members of the pairs mentioned above is one of voice and has nothing

to do with temporality, which is the focus of the present study. In the final inventory of tenseemes given at the end of this chapter, therefore, only those tenseemes with active participles are given as representative of both kinds of tenseemes in each case.

A third interesting fact that emerges from a close examination of Table 101 above is that the members of each of the following triplets of tenseemes 7 - 9 - 11, 13 - 17 - 19, 8 - 10 - 12, and 14 - 18 - 20 tend to cluster together in indicating various functions. One member of each of the above triplets contains the non-earlier aspectual marker $\{P_2\}$ whereas the other two both contain $\{P_2\emptyset\}$. It has already been said that the non-earlier aspectual marker is often used in Arabic to indicate 'durativeness' whereas $\{P_2\emptyset\}$ is used to indicate simultaneity. It now becomes clear that though Arabic formally distinguishes between $\{P_2\}$ and $\{P_2\emptyset\}$, these are functionally used similarly in most cases as a result of the role played by certain temporal adverbials in narrowing down and specifying the temporal reference of $\{P_2\}$.¹ Moreover, 'durativeness' is often a prerequisite for simultaneity, medial simultaneity in particular, and this may be another source of this

¹See p. 531 for more details.

overlapping in functions between $\{P_2\}$ and $\{P_2\emptyset\}$.

It can finally be observed that odd numbers tend to cluster together and so do even numbers. All odd numbers, it is to be noticed from the twenty tables of Test One, represent tenseemes of the non-past tense while all the even numbers stand for past-tense tenseemes. This clustering of like tenseemes shows the strong temporal relatedness among the tenseemes of either tense in Arabic.

A clearer picture of the functions of tenseemes can yet be obtained from Table 101 if the tenseemes, rather than the functions, are taken as the basis of comparison. Opposite each tenseme then, all the functions that it can indicate appear in the table. Table 102 below is thus a rearrangement of Table 101 on the lines just mentioned above.

TABLE 102

The Tenseme ¹²	Its Function(s) ¹³	Frequency
1	1 + 2 + 3 + 5	22 + 23 + 2 + 2
2	4 + 5 + 6 + 7	52 + 1 + 3 + 4
3	8 + 9 + 10 + 29 + 35	29 + 6 + 27 + 9 + 29
4	6 + 7 + 16	4 + 48 + 2
5	3 + 12 + 13 + 14	58 + 8 + 2 + 1
6	16 + 17 + 18 + 19 + 20 + 21 + 27 + 28 + 34 + 35	11 + 11 + 2 + 2 + 2 + 1 + 3 + 3 + 9 + 11
7	10 + 12 + 13 + 22 + 23 + 24 + 25	5 + 3 + 5 + 44 + 38 + 4 + 3
8	4 + 7 + 15	46 + 2 + 1
9	3 + 10 + 12 + 13 + 22 + 24 + 25	31 + 3 + 7 + 3 + 26 + 6 + 7
10	4 + 6 + 7 + 15	42 + 2 + 10 + 2
11	3 + 10 + 12 + 13 + 22 + 24 + 25	11 + 2 + 4 + 2 + 12 + 13 + 4
12	4 + 6 + 7	47 + 2 + 5
13	3 + 12 + 13 + 24 26 + 36	32 + 7 + 5 + 4 1 + 2

contd...

¹²Numbers in this column represent the various tenseemes as in Table 101.

¹³Numbers here refer to functions as listed in Table 101.

Table 102 contd.

The Tenseme	Its Function(s)	Frequency
14	15 + 16 + 17 + 18 + 19 + 20 + 27 + 28	8 + 7 + 1 + 4 + 4 + 4 + 3 + 3
15	13 + 29 + 37	32 + 6 + 3
16	19 + 30 + 31 + 32	1 + 10 + 5 + 19
17	3 + 12 + 13 + 14 + 24	49 + 3 + 1 + 1 + 7
18	15 + 17 + 20 + 27	13 + 1 + 8 + 18
19	3 + 12 + 33	28 + 14 + 13
20	15 + 20 + 21 + 27	12 + 5 + 1 + 23

Some tenseemes, it can be seen from Table 102 above, are not used in the responses to Test One as frequently as other tenseemes. This is especially the case with complex tenseemes like 16, 18, and 20 as well as others that express rather complicated temporal relations. Some students have avoided using such tenseemes in the majority of cases, as can be seen from the blanks in the individual tables^{of}/tenseemes reported earlier. In few other cases, these tenseemes were used incorrectly and were thus deleted from the data. In any case, this phenomenon may be explained by the linguistic weakness of the students on the production level. This in turn is attributed to the

limited occasions on which an Arab uses Classical Arabic productively, i.e. in speaking or writing. Most of the time, Classical Arabic is only experienced on the recognition level through reading or listening to the radio.

II. Conclusions Drawn from Data-Analysis of Test

Two

In Test Two, the writer has included verb patterns like /fa9il/ and /fa9ul/¹⁴ to observe their linguistic behaviour in indicating temporality. The results of this test have shown clearly that, contrary to all claims¹⁵, these verbs seem to behave normally like all other verbs and that there is nothing idiosyncratic in their temporal indication.

In conclusion, the thirty individual tables given in reporting the data analysis of Test Two on pp. 629 - 658 could now be combined into one table. In this unified table all the representative tenseemes would be listed for each of the thirty temporal categories. Moreover, the frequency of indicating each temporal category, or function, by a given tenseme

¹⁴See verbs in sentences 5, 7, 16, 20, and 27 on test sheet of Test Two on pages 399 - 402.

¹⁵See Chapter Two on Review of Literature for some of such claims.

would also be given in a third column. Table 103 below represents the unified table just described above:

TABLE 103

Temporal Category (Function) ¹⁶	Representative Tense(s) ¹⁷	Frequency
1	2 + 4	65 + 3
2	12 + 2	44 + 5
3	8 + 4 + 12	34 + 2 + 8
4	5 + 16 + 6 + 8	44 + 4 + 5 + 2
5	1 + 5	61 + 1
6	2 + 4	60 + 7
7	1	62
8	2 + 1	48 + 10
9	5 + 1 + 17	47 + 15 + 1
10	2 + 8 + 12 + 4	44 + 3 + 3 + 18
11	6 + 2 + 16	16 + 20 + 2
12	12 + 4	47 + 1
13	1 + 3	59 + 3
14	1	65
15	1 + 13 + 5 + 11	21 + 9 + 12 + 4

¹⁶contd... The numbers of temporal categories are the numbers of the sentences by which they are represented on the Test Two sheet reproduced on pp. 397 - 402 and in Appendix C.

¹⁷Numbers stand for Arabic tenses as shown in Table 70 on page 628 .

Table 103 contd.

Temporal Category (Function)	Representative Tenseme(s)	Frequency
16	2 + 12 + 4	55 + 1 + 6
17	2 + 12 + 4	41 + 22 + 2
18	5 + 1 + 7	41 + 23 + 1
19	2 + 4	45 + 19
20	12 + 6 + 5 + 4 + 8 + 15	3 + 4 + 4 + 11 + 2 + 1
21	5 + 1 + 17	56 + 9 + 1
22	5 + 1	45 + 8
23	5 + 1 + 15	39 + 14 + 3
24	5 + 1 + 11	44 + 11 + 1
25	1 + 5 + 2	48 + 8 + 11
26	2 + 4	64 + 3
27	8 + 2 + 4	21 + 42 + 3
28	1	61
29	2 + 4 + 8	61 + 3 + 1
30	2 + 4 + 10	48 + 15 + 4

Once more, the information provided by the above table could be made even more useful and more relevant to our purposes if the tenseemes, rather than the functions, are taken as the basis of the comparison. This could be done by listing the tenseemes in one

column and giving all the functions of every tenseme opposite that tenseme in a second column. A third column would give the frequency of the use of each tenseme in indicating every one of its functions. This frequency count is a helpful guide in the identification of the systematic versus the unsystematic functions of every tenseme; a higher frequency for a given tenseme in indicating a certain function would generally mean that that function is one of the systematic functions of that given tenseme and vice-versa.

The following is the table just described in the above paragraph:

TABLE 10.4

Representative Tenseme	Represented Temporal Category (Function)	Frequency
1	5 + 7 + 8 + 9 + 13 + 14 + 15 + 18 + 21 + 22 + 23 + 24 + 25 + 28	61 + 62 + 10 + 15 + 59 + 65 + 21 + 23 + 9 + 8 + 14 + 11 + 48+61
2	1 + 2 + 6 + 8 + 10 + 11 + 16 + 17 +19 + 25 +26+27+29+30	65+5+60+48+44 +20+55+41+45+ 11+64+42+61+48

contd...

Table 104 contd.

Representative Tenseme	Represented Temporal Category (Function)	Frequency
3	13	3
4	1 + 3 + 6 + 10 + 12 +16 + 17 + 19 + 20 + 26 + 27 + 29 + 30	3 + 2 + 7 + 18+ 1 +6 + 2 + 19+11 + 3 + 3 + 3 +15
5	4 + 5 + 9 + 15 + 18 +20 + 21 + 22 + 23+ 24 + 25	44 + 1 + 47 +12 + 41 + 4 + 56 + 45 + 39 + 44 + 8
6	4 + 11 + 20	5 + 16 + 4
7	18	1
8	3 + 4 + 10 + 20 + 27 + 29	34 + 2 + 3 + 2 + 21 + 1
9	-	-
10	30	4
11	15 + 24	4 + 1
12	2 + 3 + 10 + 12 + 16 + 17 + 20	44 + 8 + 3 +47 + 1 + 22 + 3
13	15	1
14	-	-
15	20	1
16	4 + 11	4 + 2
17	9 + 21	1 + 1
18	-	-

contd...

Table 104 contd.

Representative Tenseme	Represented Temporal Category (Function)	Frequency
19	-	-
20	-	-

In Table 104 above, the previously observed phenomenon of the rarity of examples on some tenseemes is again prominent. Moreover, some other tenseemes are not represented at all in any of the sentences in the datum of Test Two. This, however, is not unexpected since any function may, as has been mentioned earlier, be formally indicated by more than one tenseme. It is thus the tendency to use simpler tenseemes and do away with complex ones since, by associations with different temporal adverbials, these simple tenseemes may indicate the functions of the more complex ones. The tenseemes that are not represented in the datum of Test Two are all of the sort of tenseemes which express complex temporal relations. . . . Another reason for leaving out such complex tenseemes may again be attributed to the poor linguistic competence of the subjects on the production level of Classical Arabic for the reasons pointed out earlier in this chapter.

III. Inventory of Functions

The data-analysis of Test Two has already shown that some tenseemes do not occur anywhere in the responses of the informants to this test. The emphasis of Test Two, however, was more on functions and temporal categorization than on verbal forms. It presented the informants with a sample of sentences and cues that would indicate all the temporal fields and the basic temporal relations. Its results thus yielded a fairly large sample of functions. But what about the missing tenseemes? Test One was especially devised to secure that all Arabic tenseemes would be used by the informants. Thus the datum of Test One provided us with a fuller picture of forms but there was no guarantee that some major functions would not be missing in the datum. Hence, it becomes clear that the results of Test One and those of Test Two are to be taken as complementary. A full survey of Arabic tenseemes, both formally and functionally, is only possible by merging the data of both tests.

To obtain a synthesis of the results of both tests mentioned above, tables 102 and 104 of Tests One and Two respectively are integrated. The results of this synthesis appear in the individual descriptions of tenseemes which are listed below. For each tenseeme, all the different functions that

are found for it in both tables 102 and 104 are given in its individual description. Meanwhile, the functions of each tenseme are subdivided into systematic versus non-systematic ones.¹⁸

BASIC PRESENT : /yaf9a1/

(A) Systematic Functions

1. To indicate Simultaneous Present

Frequency¹⁹: 22 + 48

Co-occurrent Adverbials: /lʔān /'now'; /fi hādhihi
llaḥza/ 'at this moment';...

Examples from Data

(a) /yaktubu tṭālibu ddarsa lʔān / (1.1)²⁰
'The pupil (is) writ(ing) the lesson now'

(b) /yaktubu tṭalāmidhu lmuḥādara fi hādhihi
adaqīqa/ (1.65)

'The students (are) writ(ing) the lecture
at this moment.'

¹⁸For the distinguishing criterion between systematic versus non-systematic functions, see p. 590.

¹⁹The two figures given here indicate the number of occurrences of the tenseme under discussion in the function mentioned in the data of Tests One and Two respectively.

²⁰In the parentheses after the quoted sentences, the initial digit 1 or 2 indicates that the sentence is quoted from the data of Test One or Test Two respectively. The figure that appears after the period refers either to the sentence quoted as it appears in Appendix B for Test One or to the number of one of the tables of Test Two on pp. 629 - 658 .

(c) /hiya taktubu risāla ʔilā ʔummiḥā lʔān ./

(2.93)

'She (is) writ(ing) a letter to her mother
now.'

2. To indicate Contemporaneous Present

Frequency: None + 122

Co-occurrent Adverbials: /hādhihi lʔayyām/'these
days';...

Examples

(a) /naḥnu nasma9 hādhihi lʔughniya kathīran
hādhihi lʔayyām/ (2.73)

'We hear this song a lot these days.'

(b) /salīm yaqraʔu kathīran hādhihi lʔayyām/
(2.96)

'Salīm reads a lot these days.'

3. To indicate a General Habit or Fact (seen as true at all times or as 'timeless')

Frequency: 20 + 127

Co-occurrent Adverbials: /lā yazāl/'still'; /marra
wāḥida kulla shahr/'once
a month'; /9ādatan/
'usually'; /sanawiiyyan/
'annually'; /fi kulli
masāʔ/ 'every evening';...

Examples

(a) /yaktubu ttālib darsah 9inda rujū9ihi mina

lmadrassa/ (1.3)

'The pupil writes his lesson when he comes back from school.'

(b) /yaktubu lqāṣṣu ʔarbaʕata qaṣaṣ sanawiyyan/ (1.27)

'The novelist writes four novels annually.'

(c) /yaktubu muḥammad risāla fi kulli masāʔ/ (1.53)

'Mohammad writes a letter every evening.'

(d) /ʔalʔaṭfāl yakburūna bisurʕa 9ādatan/ (2.75)

'Children grow up quickly usually.'

(e) /huwa lā yazāl yadhhab ʔila ssīnama marra wāhida kulla shahr/ (2.82)

'He still goes to the cinema once every month.'

(B) Non-systematic Functions

1. To refer to a Future Time

Frequency: 2 + 54

Adverbials: /ghadan/'tomorrow'; /bilmustaqbal/'in the future'; /bilʔusbūʕi lqādim/'next week';...

Examples

(a) /yaktubu ʔabi rrisāla ghadan/ (1.44)

'May father writes the letter tomorrow.'

(b) /ʔidhā yusāfir salīm ʔilā baghdād bilmustaqbal, faʔinnahu sayazūru lmathafa lbaghdādi hatman/ (2.76)

'If Salīm travels to Baghdad in the future,
he will certainly visit the Baghdad Museum.'

(c) /yusāfiru salīm ?ilā baghdād ghadan/ (2.77)

'Salīm travels to Baghdad tomorrow.'

(d) /?a9taqidu ?annanā lan najid-hu bilbayti

9inda dhihābina ghadan li?annahu yaqra? fi

lmaktaba hīnadhāk/ (2.83)

'I believe we won't find him at home when we
go tomorrow as he (will be) read(ing) in the
library then.'

(e) /?ana ?azūru lma9rid yawmammā bil?usbū9i

lqādim / (2.90)

'I visit the exhibition one day next week.'

2. To indicate Activity Starting in the Past and Continuing Up to Simultaneous Present

Frequency: 2 + None

Adverbials: /mundhu sinīn/'for years'; /mundhu
safari ?ilā hayfā/'since I travelled
to Haifa';...

Examples

(a) /yaktubu shshi9ra mundhu sinīn/ (1.24)

'He (has been) writ(ing) p^oetry for years.'

(b) /lam yaktub risāla mundhu safari ?ilā hayfā/

'He (has)not writ(ten) since I (1.70)

travelled to Haifa.'

3. To refer to a Near FutureFrequency: None + 23Adverbials: /fi ʔayyati laḥza ba9da lʔān/ 'any moment now';...Examples

(a) /huwa yusāfir fi ʔayyati laḥza ba9da lʔān/

'He travels any moment now.' (2.86)

4. To indicate Duration in the FutureFrequency: None + 11Adverbials: /tuwāla yawmi lghad/ 'all day tomorrow';...Examples

(a) /salīm yaqraʔ bilmaktaba tuwāla yawmi lghad/

'Salīm (will be) read(ing) in the (2.92)

library all day tomorrow.'

5. To refer to a Time After a Point in the FutureFrequency: None + 9Adverbials: /ba9da nihāyati lʔimtiḥān ghadan/ 'after the end of the examination tomorrow';...Examples

(a) /zaki yadhhab ʔila ssīnama ma9i ba9da

nihāyati lʔimtiḥān ghadan/ (2.89)

'Zeki goes to the cinema with me after the

end of the examination tomorrow.'

6. To refer to a Time Before a Point in the FutureFrequency: None + 14

Adverbials: /qabla ssā9a lkhāmisa ghadan/'before
five o'clock tomorrow';...

Examples

(a) /yunhi salīmu lkitāba qabla ssā9a lkhāmisa
ghadan/ (2.91)

'Salīm finishes the book before five o'clock
tomorrow.'

7. To refer to a Past Time (after some Negative
Particles)

Frequency: None + 59

Adverbials: /sābiqan/'before';...

Examples

(a) /lam yusāfir salīm ?ilā baghdād sābiqan/ (2.81)

'Salīm (has) not go(ne) to Baghdad before.'

BASIC PAST : /fa9a1/

(A) Systematic Functions

1. To refer to a Specific Point in the Past

Frequency: 52 + 125

Adverbials: /yawmā ?ams/'yesterday'; /fi ssa9a
19āshira/'at ten o'clock'; /lbāriḥa/
'yesterday'; /fi ssana lmādiya/'last
year';...

Examples

(a) /kataba lwaladu ddarsa fi ssā9a 19āshira/ (1.1)

'The boy wrote the lesson at ten o'clock.'

- (b) /kataba lwaladu risāla liwālīdatihi
 9ashīyyata lbāriḥa/ (1.64)

'The boy wrote a letter to his mother
 yesterday evening.'

- (c) /kaburat hādhihi shshajara kathīran
 fi ssana lmāḍiya/ (2.94)

'This tree grew a great deal last year.'

- (d) /sāfar nabīl ?ilā landan yawmā ?ams/ (2.97)

'Nabīl travelled to London yesterday.'

2. To indicate an Unspecific Point in the Past

Frequency: None + 175

Adverbials: /fi lmāḍi/'in the past'; /qabla l?ān/
 'before (now)'; /min qablu/'before';...

Examples

- (a) /?ana qara?tu hādha lkitāb fi lmāḍi/ (2.69)

'I (have) read this book in the past.'

- (b) /?ana shāhattu hādha lfilim marratayn qabla
 l?ān/ (2.74)

(I saw this film twice before.)

'I have seen this film twice before.'

- (c) /?ana sami9tu hādhihi l?ughniya 9iddata
 marrāt min qablu/ (2.84)

'I (have) heard this song many times before.'

3. To indicate Recent Past

Frequency: 3 + 11

Adverbials: /l?ān /'now';...

Examples

(a) /katabati ddarsa l?ān / (1.32)

(She wrote the lesson now.)

'She has just written the lesson.'

(b) /hiya katabat risāla ?ilā ?ummiḥā l?ān / (2.93)

(She wrote a letter to her mother now.)

'She has just written a letter to her mother.'

4. To indicate a Past Activity Continuing up to Simultaneous Present

Frequency: 1 + None

Adverbials: /mundhu sanat ?alf watis9mi?a

wathamāniyat 9ashar/'since nineteen
eighteen';...

Examples

(a) /kataba jjawāhiri qaṣā?idahu mundhu sanat
?alf watis9mi?a wathamāniyat 9ashar/ (1.5)

(Aj-Jawahiri wrote his poems since nineteen
eighteen.)

'Aj-Jawahiri has been writing his poems since
nineteen eighteen.'

5. To indicate Duration in the Past

Frequency: None + 83

Adverbials: /tuwāla yawmi ?ams/'all day yesterday';

/tuwāla l?usbū9i lmādi/'all last week';...

Examples

(a) /darasa salīm fi lmaktaba tuwāla yawmi

ʔams/ (2.85)

'Salīm studied in the library all day
yesterday.'

(b) /marida salīm tuwāla lʔusbū9i lmādi/ (2.95)

'Salīm was sick all last week.'

6. To indicate a Hypothetical Past (with /law/'if')

Frequency: None + 44

Adverbials: /fi l9āmi lmādi/'last year';...

Examples

(a) /law daras jayyidan fi l9āmi lmādi lamā
rasab/ (2.10)

'If he (had) studied well last year, he
(would) not (have) failed.'

(B) Non-systematic Functions

1. To refer to A Point Before a Point in the Past

Frequency: 4 + 93

Adverbials: /qabla safari fi lʔusbū9i lmādi/'before
my travelling last week'; /qabla wuṣūli
bilʔams/'before my arrival yesterday';...

Examples

(a) /katab muḥammad risāla qabla ʔan yusāfir/
(1.50)
'Mohammad wrote a letter before he
travelled.'

(b) /sāfar ʔakhi ʔilā baghdād qabla safari
ʔilayhā fi lʔusbū9i lmādi/ (2.87)

(My brother travelled to Baghdad before my travelling to it last week.)

'My brother travelled to Baghdad before I did last week.'

(c) /ʔinna lbāba kusira qabla wuṣūli ʔila ddār
bilʔams/ (2.98)

'The door was broken before my arrival at the house yesterday.'

2. To refer to a Point After a Point in the Past

Frequency: None + 20

Adverbials: /9indamā taraktuhu bilʔams... ba9da qalīl/'a little while after I left him yesterday';...

Examples

(a) /9indamā taraktuhu bilʔams kataba risāla
ʔilā wālidihī ba9da qalīl .../ (2.79)

'A little while after I left him yesterday, he wrote a letter to his father.'

3. To refer to a Future Time (after /ʔidhā/'if'

Frequency: None + 48

Adverbials: /bilmustaqbal/'in the future';...

Examples

(a) /ʔidhā sāfar salīm ʔilā baghdād bilmustaqbal
faʔinnahu sayazūru lmathafa lbaghdādi
ḥatman/ (2.76)

(If Salīm travelled to Baghdad in the future,

he will certainly visit the Baghdadi Museum.)

'If Salīm travels to Baghdad in the future,

he will certainly visit the Baghdadi Museum.'

EARLIER NON-PAST : /yakūnu fa9al/

(A) Systematic Functions

1. To refer to a Habitual Action/State before an Unspecified Point of Time

Frequency: 27 + None

Adverbials: /fi ṣṣabāḥ/'in the morning'; /9indamā

ʔaṣilu ʔilā baytikum ṣabāḥan/'when I arrive at your house (every) morning';

/fi ssā9a l9āshira/'at ten o'clock';...

Examples

(a) /takūnu lbintu dhahabat fi ṣṣabāḥ/ (1.1)

'In the morning (every day), the girl has gone ~~to school~~.'

(b) /9indamā ʔaṣilu ʔilā baytikum ṣabāḥan takūnu

qad dhahabta lil9amal/ (1.24)

'When(ever) I arrive at your house in the morning, you have gone to work.'

(c) /takūnu dhahabat fi ssā9a l9āshira/ (1.43)

'She (usually) has gone by ten o'clock.'

2. To indicate a Tentative Recent Past

Frequency: 9 + None

Adverbials: /lʔan/'now';...

Examples

(a) /takūnu najāt qad dhahabat ?ila lmadrasa
l?ān ./ (1.7)

'Najāt (will) have gone to school now.'

(b) /hal takūnu ṣadīqati dhahabat l?ān?/ (1.44)

'Has my friend gone (by) now?'

3. To indicate a Tentative Past

Frequency: 29 + None

Adverbials: /ṣabāḥan/'in the morning'; /lbariḥa/
'yesterday';...

Examples

(a) /takūnu dhahabati lfatāt ṣabāḥan ?ila
lmadrasa/ (1.2)

'The girl (would) have gone to school in
the morning.'

(b) /takūnu dhahabati lbāriḥa/ (1.60)

'She (would) have gone yesterday.'

(B) Non-systematic Functions1. To indicate a Tentative Pre-Past

Frequency: 6 + None

Adverbials: /qabla dhihābi ?ila lḥadīqa/'before my
going to the garden'; /qabla zuhri
?ams/'before noon yesterday';...

Examples

(a) /qabla dhihābi ?ila lḥadīqa takūnu qad

dhahabat hind/ (1.20)

'Hind (would) have gone before my going
to the garden.'

(b) /laylā takūnu dhahabat qabla zuhri ʔams .../ (1.33)

'Layla (would) have gone before noon
yesterday.'

2. To indicate a Tentative Pre-Future

Frequency: 29 + None

Adverbials: /ṣabāḥan/'in the morning'; /ba9da
ttakharruj/'after graduation';...

Examples

(a) /takūnu laylā qad dhahabat ʔila l9ashshār
ṣabāḥan/ (1.27)

'Layla (will) have gone to Al-Ashar in
the morning.'

(b) /takūnu lfatāt ba9da ttakharruj dhahabat
ʔilā ʔahlihā/ (1.54)

'The girl (will) have gone to her family
after graduation.'

3. To indicate a Pre-Past (after /lam/'not')

Frequency: None + 3

Adverbials: /sābiqan/'before';...

Examples

(a) /lam yakun salīm sāfara ʔilā baghdād
sābiqan/ (2.81)

'Salīm had not travelled to Baghdad before.'

EARLIER PAST ; /kāna fa9a1/(A) Systematic Functions1, To refer to a Point that Precedes Another in the PastFrequency: 37 + 37Adverbials: /qabla nnawm/'before going to bed';/qabla safari fi lʔusbū9i lmādi/'before
my travelling last week'; /qabla

wuṣūli bilʔams/'before my arrival

yesterday'; /sabāḥan/'in the morning';...

Examples

(a) /ʔakhi kāna katab darsah qabla nnawm/ (1.3)

'My brother had written his lesson before
going to bed.'(b) /kāna lmusāfir qad kataba rrisāla qabla
ʔan yusāfir/ (1.54)'The passenger had written the letter before
he travelled.'(c) /kāna ʔakhi qad sāfar ʔilā baghdād qabla
safari ʔilayhā fi lʔusbū9i lmādi/ (2.87)'My brother had travelled to Baghdad before I
did last week.'(d) /ʔinna lbāba kāna kusir qabla wuṣūli ʔila
ddār bilʔams/ (2.98)'The door had been broken before my arrival
at the house yesterday.'

(B) Non-systematic Functions1. To refer to a General PastFrequency: None + 16Adverbials: /fi lmādi/'in the past'; /min qablu/'before'; /qabla lʔān/'before now';...Examples

(a) /ʔana kuntu qaraʔtu hādha lkitāba fi lmādi/ (2.69)
 (I had read this book in the past.)

'I read this book in the past.'

(b) /ʔana kuntu shāhattu hādha lfilim marratayni qabla lʔān/ (2.74)

(I had seen this film twice before now.)

'I have seen this film twice before.'

(c) /ʔana kuntu sami9tu hādhihi lʔughniya 9iddata marrāt min qablu/ (2.84)

(I had heard this song many times before.)

'I have heard this song many times before.'

2. To refer to a Specific PastFrequency: None + 6Adverbials: /fi l9āmi lmādi/'last year'; /yawma ʔams/'yesterday';...Examples

(a) /kānat hādhihi shshajara qad kaburat kathīran fi ssana lmādiya/ (2.94)

(This tree had grown a lot last year.)

'This tree grew a lot last year.'

- (b) /kāna nabīl qad sāfar ?ilā landan yawmā?ams/ (2.97)
 (Nabīl had travelled to London yesterday.)

'Nabīl travelled to London yesterday.'

3. To refer to Recent Past

Frequency: 4 + None

Adverbials: /l?ān/'now';...

Examples

- (a) /kāna ttilmīdhu qad katab darsah l?ān / (1.2)

(The pupil had written his lesson now.)

'The pupil has just written his lesson.'

- (b) /kāna l?ān qad katab/ (1.38)

(He had written now.)

'He has just written.'

4. To indicate Duration in the Past

Frequency: None + 5

Adverbials: /tuwāla l?usbū9i lmāḍi/'all last week';
 /tuwāla yawmi ?ams/'all day yesterday';...

Examples

- (a) /kāna salīm qad darasa fi lmaktaba tuwāla
 yawmi ?ams/ (2.85)

(Salīm had studied in the library all day
 yesterday.)

'Salīm was studying in the library all day
 yesterday.'

- (b) /kāna salīm qad mariḍa tuwāla l?usbū9i
 lmāḍi/ (2.95)

(Salīm had been sick all last week.)

'Salīm was sick all last week.'

5. To indicate a Hypothetical Simultaneous Present

(with /lawlā/'if not')

Frequency: None + 11

Adverbials: /lʔān /'now';...

Examples

(a) /qāla biʔanna lmuḥādara kānat ntahat lʔān

lawlā ʔasʔilatu lhādirina lkathīra/ (2.88)

((He) said that the lecture had ended now

but for the many questions from the audience.)

'He said that the lecture would have ended

now but for the many questions from the

audience.'

6. To indicate a Hypothetical Past (with /law/'if' or /lawlā/'if not')

Frequency: 2 + 18

Adverbials: /fi l9āmi lmādi/'last year'; /lbāriḥa/'yesterday';...

Examples

(a) /kāna qad katab risālatah lawlā ziyāratī lahu

lbāriḥa/ (1.67)

(He had written his letter but for my visit

to him yesterday.)

'He would have written his letter but for my

visit to him yesterday.'

(b) /law kāna daras jayyidan fi 19āmi lmādi
lamā rasab/ (2.78)

'If he had studied well last year, he (would)
not (have) failed.'

LATER PRESENT : /sayaf9a1/

(A) Systematic Functions

1. To indicate a Future Time

Frequency: 36 + 78

Adverbials: /ṣabāhan/'in the morning'; /ghadan/
'tomorrow'; /yawmammā bilʔūsbu9i
lqādim/'one day next week';...

Examples

(a) /satusāfiru ʔila lbasra ghadan/ (1.31)

'She will travel to Basrah tomorrow.'

(b) /sayusāfir salīm ʔilā baghdād ghadan/ (2.77)

'Salīm will travel to Baghdad tomorrow.'

(c) /ʔana saʔazūru lma9rid yawmammā bilʔusbū9i

lqādim/ (2.90)

'I will visit the fair one day next week.'

2. To indicate a time at Near Future

Frequency: 1 + 50

Adverbials: /lʔān/'now'; /hādhihi lʔayyām/'these
days'; /fi ʔayyati laḥza ba9da lʔān/
'any moment (after) now';...

Examples

(a) /satusāfir lbintu lʔān/ (1.17)

'The girl will travel now.'

(b) /naḥnu sanasma9 hādhihi lʔughniya kathīran
hādhihi lʔayyām/ (2.73)

'We will hear this song a lot from now on.'

(c) /huwa sayusāfir fi ʔayyati laḥza ba9da lʔān/ (2.86)

'He will travel any moment now.'

(d) /hiya sataktub risāla ʔilā ʔummiḥā lʔān/ (2.93)

'She will write a letter to her mother now.'

3. To indicate Duration in the Future

Frequency: None + 44

Adverbials: /tuwāla yawmi lghad/'all day tomorrow';...

Examples

(a) /salīm sayaqra? bilmaktaba tuwāla yawmi lghad/ (2.92)

'Salīm will read in the library all day
tomorrow.'

4. To indicate a Hypothetical Near Future (with /lawlā/
'if not')

Frequency: None + 4

Adverbials: /lʔān/'now';...

Examples

(a) /qāla biʔanna lmuḥāḍara satantahi lʔān lawlā
ʔasʔilatu lhādirīna lkathīra/ (2.88)

((He) said that the lecture will finish now

but for the many questions from the audience.)

'He said that the lecture would finish now but
for the many questions from the audience.'

(B) Non-systematic Functions

1. To refer to a Time After a Point in the Future

Frequency: 7 + 56

Adverbials: /ba9da ttakharruj/'after graduation';

/ba9da nihāyati l?imtiḥān ghadan/'after
the end of the examination tomorrow';...

Examples

(a) /satusāfir ba9da ttakharruj/ (1.1)

'She will travel after graduation.'

(b) /dalāl satusāfir ?ila lqāhira ba9da
takharrujiḥā/ (1.70)

'Dalāl will travel to Cairo after her
graduation.'

(c) /zaki sayadḥḥab ?ila asīnama ma9i ba9da
nihāyati l?imtiḥān ghadan/ (2.89)

'Zeki will go to the cinema with me after
the end of the examination tomorrow.'

2. To refer to a Time Before a Point in the Future

Frequency: 2 + 39

Adverbials: /qabla ssā9a lkhāmisa ghadan/'before

five o'clock tomorrow'; /qabla ?an

yusāfir/'before he travels';...

Examples

(a) /satusāfir ṣadīqati qabla ?an yusāfir
wāliduhā ?ilā baghdād/ (1.4)

'My friend will travel before her father
(travels) to Baghdad.'

(b) /satusāfir qabla ?an yusāfir/ (1.38)

'She will travel before he does.'

(c) /sayunhi salīmu lkitāba qabla ssā9a lkhāmisa
ghadan/ (2.91)

'Salīm will finish the book before five
o'clock tomorrow.'

3. To indicate an Intended Action at Later Past

Frequency: None + 44

Adverbials: /ba9da takharrujihi/'after his
graduation';...

Examples

(a) /qāla bi?annahu sayusāfir ba9da takharrujihi../
(2.72)

(He said he will travel after his graduation...)

'He said he would travel after his
graduation.'

LATER PAST : /kāna sayaf9al/

(A) Systematic Functions

1. To indicate an Intended Action at Later Past

Frequency: 9 + None

Adverbials: /ba9da ttakharruj/'after graduation';

/ba9da ssā9a l9āshira/'after ten o'clock';...

Examples

- (a) /kānati ttāliba satusāfir ba9da ttakharruj/ (1.2)
 'The student was to travel after graduation.'
- (b) /kānat satusāfir ba9da ssā9a l9āshira/ (1.39)
 'She was to travel after ten o'clock.'
- (c) /sādīqati kānat satusāfir ba9da ttakharruj/
 'My friend was to travel after graduation.'

2. To indicate a Hypothetical (i.e. unrealized) Action at Post-Past (with /lawlā/'if not')

Frequency: 3 + 21

Adverbials: /ba9da lghadā?/'after lunch'; /ba9da takharrujihi/'after his graduation'; /9indamā taraktuhu bil?ams ... ba9da qalīl/'a short time after I left him yesterday';...

Examples

- (a) /kānat fātima satusāfir ba9da lghadā? lawlā ta9akkuri jjaw/ (1.27)
 'Fatima would (have) travel(led) after lunch but for the bad weather.'
- (b) /kānat satusāfir ba9da ttakharruj lawlā wafāt wālidihā/ (1.68)
 'She would (have) travel(led) after graduation but for her father's death.'
- (c) /qāla bi?annahu kāna sayusāfir ba9da takharrujihi lawlā wafāt wālidihī/ (2.72)

'He said he would (have) travel(led) after his graduation but for his father's death.'

- (d) /9indamā taraktuhu bilʔamsi kāna sayaktub risāla ʔilā wālidihi ba9da qalīl. walākin yabdu ʔannahu qad ghayyara raʔyahu ba9da mughādarati/ (2.79)

'When I left him yesterday, he was to write a letter to his father after a while. But it seems that he changed his mind after I left.'

(B) Non-systematic Functions

1. To indicate a Tentative Past

Frequency: 1 + None

Adverbials: /fi ssā9a l9āshira/'at ten o'clock';
/qābla ʔushū9/'a week ago'; /bilʔams/'yesterday';...

Examples

- (a) /kānat ʔukhti satusāfir fi ssā9a l9āshira/ (1.1)
'My sister was to travel at ten o'clock.'
- (b) /kānat satusāfir qabla ʔushū9/ (1.45)
'She was to travel a week ago.'
- (c) /hayfāʔ kānat satusāfir 9indamā raʔaytuha bilʔams/ (1.67)
'Haifā' was to travel when I saw her yesterday.'

2. To indicate a Hypothetical Past (usu. with /lawlā/ 'if not')

Frequency: 11 + None

Adverbials: /ʔams/'yesterday'; /fi ssā9a 19āshira/ 'at ten o'clock';...

Examples

- (a) /law lam ʔalḥaq bihā kānat satusāfir ʔamsi/ (1.22)
 'If I (had) not managed to catch her, she
 would (have) travel(led) yesterday.'

- (b) /kānati ttāʔira satusāfir fi ssā9a 19āshira
 lawlā lḥarb/ (1.32)

(The plane would leave at ten but for the war.)

'The plane would have left at ten but for
 the war.'

- (c) /kānat ʔamal satusāfir bilʔams lawlā
 maradihā/ (1.66)

'Amal would (have) travel(led) yesterday
 but for her illness.'

3. To indicate a Hypothetical Pre-Past

Frequency: 2 + None

Adverbials: /qabla wuṣūli ʔilayhā sabāḥan/'before
 I reached her in the morning';
 /qabla ʔan yusāfir ʔakhūhā/'before
 her brother travelled';...

Examples

- (a) /kānat satusāfir ṣadīqati qabla wuṣūli

?ilayhā ṣabāhan/ (1.4)

'(My friend would leave before I reached her
in the morning.)

'My friend would have left before I reached....'

[/but she didn't/

(b) /kānat suḡād satusāfir qabla ?an yusāfir
?akhūhā/ (1.12)

'Su'ād would (have) travel(led) before her
brother did so.'

4. To indicate a Hypothetical Future (usu. with /lawlā/
'if not')

Frequency: 11 + None

Adverbials: /ghadan/'tomorrow'; /bil?usbūḡi lqādim/
'next week';...

Examples

(a) /kānat khadīja satusāfir ghadan/ (1.11)

'Khadīja would (have) travel(led) tomorrow.'

(b) /kānat satusāfir bil?usbūḡi lqādim lawlā
ḡurūf ?alammat bihā/ (1.13)

'She would (have) travel(led) next week but
for certain circumstances.'

(c) /kānat huda satusāfir ?ilā baghdād ghadan
lawlā wafāt wālidihā/ (1.69)

'Huda would (have) travel(led) to Baghdad
tomorrow but for her father's death.'

5. To indicate a Hypothetical Pre-FutureFrequency: 2 + None

Adverbials: /qabla wuṣūli ṣabāḥan/'before my
 arrival in the morning'; /qabla ?an
 yusāfir ?akhūhā/'before her brother
 travels';...

Examples

(a) /kānat satusāfir ṣādīqati qabla wuṣūli
 ?ilayhā ṣabāḥan/²¹ (1.4)

'My friend would (have travel(led) before
 my arrival in the morning.'

(b) /kanat suḡād satusāfir qabla ?an yusāfir
 ?akhūhā/ (1.12)

(Su'ad would travel before her brother does so.)

'Su'ad would have travelled before her
 brother did so.'

6. To indicate a Hypothetical Post-Future (with /lawlā/
 'if not')Frequency: 3 + None

Adverbials: /baḡda lghadā?/'after lunch'; /baḡda
 ttakharruj/'after graduation';...

²¹This same sentence has already appeared as a representative of another function elsewhere. A second appearance of certain sentences means that there is some ambiguity in the temporal reference of such sentences.

Examples

- (a) /kānat fātima satusāfir ba9da lghadā? lawlā
ta9akkuri jjaw/ (1.27)

'Fatima would (have) travel(led) after lunch
but for the bad weather.'

- (b) /kānat satusāfir ba9da ttakharruj lawlā wafāt
wālidihā/ (1.63)

'She would (have) travel(led) after
graduation but for her father's death.'

7. To indicate a Hypothetical Simultaneous Present
(or Near Future)

Frequency: 2 + 4

Adverbials: /l?ān/'now';...

Examples

- (a) /kānat satusāfir l?ān/ (1.10)

'(She) would (have been) travel(ling) now.'

- (b) /qāla bi?anna lmuhādara kānat satantahi l?ān
lawlā ?as?ilatu lhādirīna lkathīra/ (2.88)

'He said that the lecture would (have)
end(ed) now but for the many questions
from the audience.'

8. To indicate a Hypothetical Contemporaneous Present

Frequency: 1 + None

Adverbials: /lyawma/'today';...

Examples

- (a) /kānat satusāfir lyawma lawlā wafāt

ʔabīhā/

(1.33)

'She would (have) travel(led) today but for
her father's death.'

SIMULTANEOUS NON-PAST : /yakūnu fā9il/

(A) Systematic Functions

1. To indicate a Habitual Action/State Simultaneous
with an Unspecified Point (i.e. at all Times)

Frequency: 44 + None

Adverbials: /ṣabāḥan/'in the morning'; /fi ssā9a
19āshira 9ādatan/'usually at ten
o'clock';...

Examples

- (a) /yakūnu lwalad nāʔim ṣabāḥan/ (1.1)

'The boy is (usually) sleeping in the
morning.'

- (b) /yakūnu ʔakhi lʔaṣghar nāʔim fi ssā9a
19āshira 9ādatan/ (1.4)

'My younger brother is (usually) sleeping
at ten.'

- (c) /yakūnu zayd nāʔim fi kulli marra ʔazurūhu
fīhā/ (1.69)

'Zayd is sleeping every time I visit him.'

2. To indicate a Tentative Simultaneous Present

Frequency: 4 + None

Adverbials: /lʔān/'now'; /fi hādhihi ssā9a/'at this
hour';...

Examples

(a) /qad yakūnu zaydun nāʔim lʔān/ (1.7)

'Zayd (will) be sleeping now.'

(b) /yakūnu ʔabi nāʔimani lʔān/ (1.51)

'My father (will) be sleeping now.'

(c) /yakūnu zaydun nāʔim fi hādhihi ssā9a/ (1.61)

'Zayd (will) be sleeping at this hour.'

(B) Non-Systematic Functions

1. To refer to a Tentative Action/State Simultaneous with a Point/Period in the Future

Frequency: 38 + 1

Adverbials: /ṣabāḥan/'in the morning'; /fi ssā9a
19āshira/'at ten o'clock'; /zuhran/
'at noon'; /fi ʔayyati laḥza ba9da
lʔān/'any moment now!;...

Examples

(a) /yakūnu ʔakhi nāʔim ṣabāḥan/ (1.10)

'My brother (will) be sleeping in the morning.'

(b) /yakūnu ʔabi nāʔim fi ssā9a 19āshira/ (1.44)

'My father (will) be sleeping in the morning.'

(c) /huwa yakūnu musāfir fi ʔayyati laḥza ba9da
lʔān/ (2.85)

'He (will) be travelling any moment now.'

2. To refer to a Tentative Habitual Action/State After an Unspecified Point

Frequency: 3 + None

Adverbials: /ba9da rriḍā9a/'after suckling';
/ba9da l9ishā?/'after supper';...

Examples

(a) /yakūnu ṭṭiflu nā?im ba9da rriḍā9a/ (1.27)

'The baby is (usually) sleeping after suckling.'

(b) /yakūnu muḥammad nā?im ba9da l9ishā?/ (1.29)

'Mohammad is (usually) sleeping after supper.'

3. To refer to a Tentative Habitual Action/State Before an Unspecified Point of Time

Frequency: 5 + None

Adverbials: /qabla ?an yusāfir/'before he travels';
/qabla ssā9a ththāmina/'before eight o'clock';...

Examples

(a) /yakūna 9aliyyun nā?im qabla ?an yusāfir/ (1.15)

'Ali is (usually) sleeping before he travels.'

(b) /yakūnu lmudarrisu nā?im qabla ssā9a

ththāmina/ (1.54)

'The teacher is (usually) sleeping before eight.'

4. To refer to a Tentative Action/State Simultaneous with a Post-Future

Frequency: 3 + None

Adverbials: /ba9da rriḍā9a/'after suckling'; /ba9da l9ishā?/'after supper'; /ba9da ssā9a l9ashira/'after ten o'clock';...

Examples

(a) /yakūnu ṭṭiflu nā?im ba9da rriḍā9a/ (1.27)

'The baby (will) be sleeping after suckling.'

(b) /yakūnu muḥammad nā?im ba9da l9ishā?/ (1.29)

'Mohammad (will) be sleeping after supper.'

(c) /lā tuthīra ḍḍajja fa?innahu yakūnu nā?im

ba9da ssā9a l9āshira/ (1.65)

'Don't make a noise as he (will) be sleeping after ten o'clock.'

5. To refer to a Tentative Habitual Action/State Before a Point in the Future

Frequency: 5 + None

Adverbials: /qabla ?an yusāfir/'before he travels'; /qabla l9āshira/'before ten o'clock';...

Examples

(a) /yakūnu nā?im qabla ?an yusāfir/ (1.18)

'He is (usually) sleeping before he travels.'

(b) /yakūnu nā?im qabla l9āshira/ (1.33)

'He is (usually) sleeping before ten o'clock.'

SIMULTANEOUS PAST : /kāna fā9il/(A) Systematic Functions

1. To indicate Simultaneity of an Action/State with a Past Point/Period of time

Frequency: 46 + 56

Adverbials: /ṣabāḥan/'in the morning'; /9indamā
raʔaytuhu bilʔams/'when I saw him
yesterday'; /bilʔams/'yesterday';
/tuwāla lʔusbū9i lmādi/'all last
week';...

Examples

- (a) (kāna muḥammad māshiyan ṣabāḥan/ (1.12)

'Mohammad was walking in the morning.'

- (b) /kāna lmudarrisu māshiyan 9indamā raʔaytuhu
bilʔams/ (1.54)

'The teacher was walking when I saw him
yesterday.'

- (c) /ʔinnahu kāna jālis bilḥadīqa 9indamā
marartu 9alā dārihi bilʔams/ (2.71)

'He was sitting in the garden when I passed
by his house yesterday.'

- (d) /kāna salīm marīd tuwāla lʔusbū9i lmādi/
(2.95)
'Salīm was not feeling well all last week.'

- (e) /kāna nabīl musāfir ʔilā landan yawma ʔams/
(2.97)
'Nabīl was travelling to London yesterday.'

2. To indicate Simultaneity of a Hypothetical Action/
State with a Past Point/Period of Time (with /law/'if')

Frequency: None + 3

Adverbials: /fi 19āmi lmāḍi/'last year';...

Examples

- (a) /law kāna dāris fi 19āmi lmāḍi lamā rasab/
 (If he was studying last year, he would not
 have failed.)

'If he had been studying last year, he
 would not have failed.'

(B) Non-Systematic Functions

1. To refer to an Action/State Simultaneous with a
Time Before a Point in the Past

Frequency: 2 + None

Adverbials: /qabla ?an yusāfir/'before he
 travelled';...

Examples

- (a) /zaydun kāna māshīyan qabla ?an yusāfir/
 (1.47)
 'Zayd was walking before he travelled.'

- (b) /kāna 9alīyyun māshīyan qabla ?an yusāfir
 bissayyāra/ (1.50)

'Ali was walking before he travelled by the
 car.'

2. To refer to an Action/State Simultaneous with a Time
After a Point in the Past

Frequency: 1 + None

Adverbials: /ba9da ttakharruj/'after the graduation';...

Examples

(a) /kāna māshīyan ba9da ttakharruj/ (1.2)

'He was walking after the graduation.'

3. To refer to a Hypothetical Action/State at
Simultaneous Present (with 'lawlā/'if not')

Frequency: None + 2

Adverbials: /l?ān /'now';...

Examples

(a) /qāla bi?anna ?almuḥāḍara kānat muntahiya

l?ān lawlā ?as?ilatu lhādirīna lkathīra/ (2.88)

((He) said that the lecture was ending now

but for the many questions from the audience.)

'He said that the lecture would have been

ended now but for the many questions from

the audience.'

4. To refer to a Hypothetical Action/State at Post-
Past (with /lawlā/'if not')

Frequency: None + 2

Adverbials: /ba9da takharrujihi/'after his
graduation';...

Examples

(a) /qāla bi?annahu kāna musāfir ba9da

takharrujihi lawlā wafāt wālidīhi (2.72)

(He said he was travelling after his graduation but for his father's death.)

'He said he would have been travelling after his graduation but for his father's death.'

CONTINUOUS NON-PAST : /yakūnu yaf9al/

(A) Systematic Functions

1. To refer to a Tentative Action/State Habitually Happening at an Unspecified Point/Period of Time

Frequency: 12 + None

Adverbials: /9indamā ʔadkhulu ʔilā ghurfatihi/

'when I enter his room'; /ṣabāḥan/'in the morning'; /masāʔan/'in the evening';...

Examples

(a) /9indamā ʔadkhulu ʔilā ghurfatihi yakūnu yaktub/ (1.8)

'When(ever) I enter his room, he is writ(ing).'

(b) /yakūnu ʔakhi yaktub ṣabāḥan/ (1.10)

'My brother is writ(ing) in the morning(s).'

(c) /yakūnu zaydun yaktub masāʔan/ (1.53)

'Zayd is writ(ing) in the evening(s).'

2. To refer Tentatively to an Action/State Going on at Simultaneous Present

Frequency: 13 + None

Adverbials: /lʔān/'now'; /fi mithli hādha lwaqti/
'at such a time';...

Examples

- (a) /yakūnu yaktub lʔān/ (1.9)
'He (will) be writ(ing) now.'
- (b) /yakūnu zayd yaktub darsahu lʔān/ (1.48)
'Zayd (will) be writ(ing) his lesson now.'
- (c) /ʔādatan yakūnu ʔahmad yaktub maqāla fi
mithli hādha lwaqti/ (1.61)
'Usually Ahmad (will) be writ(ing) an
article at such a time.'

(B) Non-Systematic Functions

1. To refer to a Habitual Action/State Tentatively

Going on Before an Unspecified Point of Time

Frequency: 2 + None

Adverbials: /qabla ʔan yusāfir/'before he travels';...

Examples

- (a) /yakūnu lwaladu yaktub qabla ʔan yusāfir/ (1.1)
'The boy is (usually) writ(ing) before he
travels.'
- (b) /qabla ʔan yusāfir yakūnu yaktub/ (1.11)
'Before he travels, he is (usually) writ(ing).'

2. To refer to an Action/State Tentatively Going on

After an Unspecified Point of Time

Frequency: 4 + None

Adverbials: /ba9da l9ishā?/'after supper';

/ba9da ttak^harruj/'after graduation';...

Examples

(a) /yakūnu ba9da l9ishā? yaktub qiṣṣa/ (1.18)

'He (will) be writ(ing) a novel after supper.'

(b) /yakūnu kullu ṭālib ba9da ttak^harruj yaktub

muʔallafāt qayyima/ (1.47)

'Every student (will) be writ(ing) valuable books after graduation.'

3. To refer to an Action/State Tentatively Going on During a Point/Period in the Future

Frequency: 11 + 5

Adverbials: /9indamā yunhi ʔimtiḥānahu/'when he

finishes his examination'; /fi l9āmi

lqādim/'next year'; /9inda dhihābinā

ghadan/'when we go tomorrow'; /ṭuwāla

yawmi lghad/'all day tomorrow';...

Examples

(a) /yakūnu ʔaḥmad yaktub fi ghurfatihi 9indamā

yunhi ʔimtiḥānahu/ (1.20)

'Ahmad (will) be writ(ing) in his room when he finishes his examination.'

(b) /huwa yakūnu yaktub fi l9āmi lqādim/ (1.33)

'He (will) be writ(ing) next year.'

(c) /ʔa9taqidu ʔannanā lan najid-hu bilbayti

9inda dhihābinā ghadan liʔannahu sayakūnu

yaqra? fi lmaktaba hīnadhāk/ (2.83)

'I believe we won't find him at home when we go tomorrow as he (will) be read(ing) in the library then..'

(d) /salīm yakūnu yaqra? tuwāla yawmi lghad/(2.92)

'Salīm (will) be read(ing) all day tomorrow.'

4. To refer to a Tentative Action/State Habitually

Going on Before a Future Point of Time

Frequency: 2 + None

Adverbials: /qabla ?an yusāfir/;...

Examples

(a) /yakūnu lwaladu yaktub qabla ?an yusāfir/ (1.1)

'The boy is (usually) writ(ing) before he travels.'

(b) /qabla ?an yusāfir yakūnu yaktub/ (1.11)

'Before he travels, he is (usually) writ(ing).'

5. To refer to a Tentative Action/State Going on After a Future Point

Frequency: 4 + None

Adverbials: /ba9da ttakharruj/;...

Examples

(a) /ba9da ttakharruj yakūnu lmu9allim yaktub

kullamā yajiduhu nāfi9an liṭalabatih/ (1.34)

'After graduation, the teacher (will) be writ(ing) whatever he finds useful to his pupils.'

(b) /yakūnu 9aliyyun yaktub ba9da ttakharruj mā
yashā? fi jjarā?id/ (1.49)

'Ali (will) be writ(ing) whatever he likes
in the newspapers after graduation.'

CONTINUOUS PAST : /kāna yaf9al/

(A) Systematic Functions

1. To indicate Duration in the Past

Frequency: 46 + 78

Adverbials: /bil?ams/'yesterday'; /tuwāla yawmi
?ams/'all day yesterday';...

Examples

(a) /kāna farīd yaktub bil?ams/ (1.47)

'Farid was writ(ing) yesterday.'

(b) /?ana kuntu ?aktub risāla 9indamā nqata9a
ttayyāru lkahrabā?i fi llayla lmāḍiya/ (2.80)

'I was writ(ing) a letter when there was a
power-cut last night.'

(c) /kāna salīm yadrus fi lmaktaba tuwāla
yawmi ?ams/ (2.85)

'Salīm was study(ing) in the library all
day yesterday.'

2. To indicate Duration at a Point/Period at Recent Past

Frequency: 2 + None

Adverbials: /l?ān/'now';...

Examples

(a) /kāna lwaladu yaktub ddarsa lʔān/ (1.1)

'The boy was writ(ing) the lesson now.'

(b) /kāna ttilmīdhu yaktub lʔān/ (1.37)

'The pupil was writ(ing) now.'

3. To indicate Frequency in the Past

Frequency: 1 + 44

Adverbials: /sābiqan/'before'; /kulla ʔusbū9

9indamā kāna shābban/'every week when
he was young';...

Examples

(a) /kāna ʔakhi yaktub shshi9ra sābiqan/ (1.4)

'My brother was writ(ing) poetry before.'

(b) /ʔabi kāna yadhhab ʔila ssīnama kulla

ʔusbū9 9indamā kāna shābban/ (2.70)

'My brother was go(ing) to the cinema every
week when he was young.'

4. To indicate a Hypothetical Action/State Going on at
a Point/Period in the Past (with /law/'if')

Frequency: None + 3

Adverbials: /fi l9āmi lmādi/'last year';...

Examples

(a) /law kāna yadrus jayyidan fi l9āmi lmādi lamā
rasab/ (2.78)

(If he was studying hard last year, he would
not have failed.)

'If he had studied hard last year, he would not have failed.'

(B) Non-Systematic Functions

1. To indicate an Action/State Going on at a Point/Period at Pre-Past

Frequency: 5 + None

Adverbials: /qabla ?an yusāfir/'before he travelled'; /qabla dhihābi/'before my going away'; /qabla takharrujihi/'before his graduation';...

Examples

(a) /kāna yaktub risālatahu qabla ?an yusāfir/ (1.2)
'He was writ(ing) his letter before he travelled.'

(b) /kāna 9aliyyun yaktub risāla qabla dhihābi/ (1.31)
'Ali was writ(ing) a letter before my going away.'

(c) /kāna samīr yaktub ?ilā ?ummihi qabla takharrujihi/ (1.60)
'Salīm was writ(ing) to his mother before his graduation.'

2. To indicate a Hypothetical Action/State at Simultaneous Present (with /lawlā/'if not')

Frequency: None + 3

Adverbials: /l?ān/'now';...

Examples

(a) /qāla biʔanna lmuhādara kānat tantahi lʔān
lawlā ʔasʔilatu lhādirīna lkathīra/ (2.88)

((He) said that the lecture was ending now
but for the many questions from the
audience.)

'He said that the lecture would have been
ending now but for the many questions from
the audience.'

CONTINUOUS LATER-PRESENT : /sayakūnu yaf9al/(A) Systematic Functions

1. To refer to an Action/State Going On at a Point/
Period in the Future

Frequency: 32 + 1

Adverbials: /masāʔan/'in the evening'; /ghadan/
'tomorrow'; /9inda dhihābinā ghadan/
'when we go tomorrow'; /ṭuwāla yawmi
ghad/'all day tomorrow';...

Examples

(a) /sayakūnu zaydun yaqraʔu ddarsa masāʔan/
(1.15)
'Zayd will be read(ing) the lesson in the
evening.'

(b) /ʔahmad sayakūnu yaqraʔ ghadan/ (1.40)
'Ahmad will be read(ing) tomorrow.'

(c) /zayd sayakūnu yaqraʔ fi lmaktaba ṭuwāla

yawmi ghad/

(1.69)

'Zayd will be read(ing) in the library all day tomorrow.'

(d) /ʔa9taqidu ʔannanā lan najid-hu bilbayti

9inda dhihābinā ghadan liʔannahu sayakūnu

yaqraʔ fi lmaktaba hīnadhāk/

(2.83)

'I believe we won't find him at home when we go tomorrow as he will be read(ing) in the library then.'

2. To indicate an Action Repeated through a Period of Time in the Future

Frequency: 1 + None

Adverbials: /kulla yawm/'everyday';...

Examples

(a) /sayakūnu yaqraʔ fi kitābihi kulla yawm/

(1.53)

'He will be read(ing) his book everyday.'

(B) Non-Systematic Functions

1. To indicate Duration Before a Point in the Future

Frequency: 2 + None

Adverbials: /qabla ʔan yusāfir/'before he travels';...

Examples

(a) /sayakūnu ʔakhi yaqraʔ qabla ʔan yusāfir/

(1.1)

'My brother will be read(ing) before he travels.'

- (b) /sayakūnu zaydun yaqra? qabla ?an yusāfir/
(1.12)
'Zayd will be read(ing) before he travels.'

2. To indicate Duration After a Point in the Future

Frequency: 7 + None

Adverbials: /ba9da ttakharruj/'after graduation';
/ba9da lmasā?/'later in the evening';...

Examples

- (a) /sayakūnu yaqra?u l?adab min jadīd ba9da
ttakharruj/ (1.9)
'He will be re-read(ing) the literature
after graduation.'
- (b) /sayakūnu tṭālib yaqra? ba9da lmasā?/ (1.37)
'The pupil will be read(ing) later in the
evening.'
- (c) /sayakūnu 9aliyyun ba9da ttakharruj yaqra?
turātha l9arab/ (1.49)
'After graduation, Ali will be read(ing) the
heritage of the Arabs.'

3. To indicate a Tentative Action/State Going on at
Simultaneous or Contemporaneous Present

Frequency: 7 + None

Adverbials: /l?ān/'now'; /lyawm/'today';...

Examples

- (a) /sayakūnu yaqra? l?ān/ (1.2)
'He will be read(ing) now.'

(b) /sayakūnu 9aliyyun yaqra? 1muḥāḍara lyawm/ (1.27)
 'Ali will be read(ing) the lecture today.'

(c) /sayakūnu lkhaṭīb yaqra?u l?ān/ (1.44)
 'The preacher will be read(ing) now.'

CONTINUOUS LATER-PAST : /kāna sayakūnu yaf9al/

(A) Systematic Functions

1. To indicate an Action/State Going on During a Point/Period at Post Past (Past Point of Reference)

Frequency: 8 + None

Adverbials: /ba9da ttakharruj/'after graduation';

/9indamā ra?aytuhu bil?ams/'when I saw him yesterday'; /ba9da ?an taraknāhu/'after we left him';...

Examples

(a) /kāna ḥusayn sayakūnu yaktubu ddarsa 9indamā ra?aytuhu bil?ams/ (1.15)

'Hussein would be writ(ing) his lesson when I saw him yesterday.'

(b) /kāna sayakūnu yaktub ba9da ttakharruj/(1.38)

'He would be writ(ing) after graduation.'

(c) /ba9da ?an taraknāhu kāna sayakūnu yaktubu risāla ?ilā wēlidihi/ (1.63)

'After we left him, he would be writ(ing) a letter to his father.'

2. To indicate a Hypothetical Action/State Going on at Post-Past

Frequency: 3 + None

Adverbials: /ba9da ttakharruj/'after graduation';
/ba9da dhihābi sāhibatihi/'after the
leaving of his girlfriend';...

Examples

(a) /kāna sayakūnu yaktub ba9da ttakharruj/ (1.38)
'He would have (been) writ(ing) after
graduation.'

(b) /kāna ṭarīf sayakūnu yaktub risāla ba9da
dhihābi sāhibatihi/ (1.65)
'Tarīf would have (been) writ(ing) a letter
after his girlfriend had left.'

(B) Non-Systematic Functions

1. To refer to a Hypothetical Action/State as Going on in the Past (with /law/'if')

Frequency: 7 + None

Adverbials: /ṣabāḥan/'in the morning'; /fi lmasā?/'in the evening';...

Examples

(a) /kāna muḥammad sayakūnu yaktub ṣabāḥan law
ʔanna ʔaḥadan ʔayqaḏahu/ (1.10)
'Mohammad would have (been) writ(ing) in the
morning if someone had awakened him.'

(b) /kāna sayakūnu yaktub fardāh fi lmasā? law
lam yughālibhu nnuḡās/ (1.68)

'He would have (been) writ(ing) his homework
in the evening if he had not fallen asleep.'

2. To refer to a Hypothetical Action/State Going on
at Pre-Past

Frequency: 4 + None

Adverbials: /qabla ?an yusāfir/'before he travelled';...

Examples

(a) /kāna ʕaliyyun sayakūnu yaktub qabla ?an
yusāfir/ (1.12)

'Ali would have (been) writ(ing) before he
travelled.'

(b) /kāna ṭṭālib sayakūnu yaktub qabla ?an
yusāfir/ (1.37)

'The student would have (been) writ(ing)
before he travelled.'

3. To refer to a Hypothetical Action/State Going on
in the Future

Frequency: 1 + None

Adverbials: /baḡda l?ān/'after now';...

Examples

(a) /kāna sayakūnu yaktub shshiḡra baḡda l?ān/

(He would have (been) writ(ing) poetry after now.)

'He would have been writing poetry from now
'on.'

4. To refer to a Hypothetical Action/State Going on at Pre-future

Frequency: 4 + None

Adverbials: /qabla ?an yusāfir/'before he travels';
/qabla safarihi/'before his
travelling';...

Examples

- (a) /kāna ṭṭālib sayakūnu yaktub rrisāla qabla
?an yusāfir/ (1.48)

'The student would have (been) writ(ing)
the letter before he travelled.' [in the
future]

- (b) /kāna sayakūnu yaktubu lkitāb qabla safarihi.
law lam tahulla bihi nawbatun qalbiyya (1.54)
'He would have (been) writ(ing) the book
before he travelled if he had not had a
heart attack.'

5. To refer to a Hypothetical Action/State Going on at Post Future

Frequency: 3 + None

Adverbials: /ba9da ttakharruj/'after graduation';...

Examples

- (a) /kāna sayakūnu yaktub ba9da ttakharruj/(1.38)

'He would have (been) writ(ing) after
graduation.'

(b) /kāna sayakūnu yaktub ʔuṭrūhatahu ba9da
 ttakharruj lawlā liḏtirābi ssihhi lladhi
 ʔaṣābah/ (1.67)

'He would have (been) writ(ing) his thesis
 after graduation but for his health
 troubles.'

6. To refer to a Hypothetical Action/State at
 Simultaneous Present

Frequency: 4 + None

Adverbials: /lʔān/'now';...

Examples

(a) /kāna sayakūnu yaktub lʔān/ (1.43)

'He would have (been) writ(ing) now.'

(b) /lawlā lhādithi ṭṭāri? lakāna zayd sayakūnu
 yaktub mufakkiratahu lʔān/ (1.69)

'Had it not been for the unexpected incident,
 Zayd would have (been) writ(ing) his diary
 now.'

PRE-LATER PRESENT : /sayakūnu fa9al/

(A) Systematic Functions

1. To indicate an Action/State at Pre-future

Frequency: 32 + None

Adverbials: /fi ṣṣabāḥ/'in the morning'; /qabla ʔan
 ʔadhhab litawḏi9ihi/'before I go to see
 him off'; /fi l9īdi lqādim/'next feast;
 /ghadan/'tomorrow';...

Examples

(a) /sayakūnu ʔakhi sāfar fi ṣṣabāḥ/ (1.1)

'My brother will have travelled by the morning.'

(b) /ʔaṭṭālibu sayakūnu sāfar qabla ʔan ʔadhab litawdīḡihi/ (1.3)

'The student will have travelled before I go to see him off.'

(c) /fi lḡīdi lqādim sayakūnu sāfar / (1.20)

'By next feast, he will have travelled.'

(d) /sayakūnu sāfar ghaḍan/ (1.40)

'He will have travelled by tomorrow.'

2. To indicate an Action/State that will Precede a Point at Near Future

Frequency: 3 + None

Adverbials: /llayla/'tonight';...

Examples

(a) /sayakūnu llayla sāfar ʔila lqāhira/ (1.5)

'He will have travelled to Cairo by tonight.'

(b) /sayakūnu huwa llayla qad sāfar/ (1.28)

'He will have travelled by tonight.'

(c) /sayakūnu sāfar ḡindamā nadhhabu liziyārat ʔahlihi ḡashiyyata lyawm/ (1.64)

'He will have travelled by the time we go to visit his family this evening.'

(B) Non-Systematic Functions1. To indicate a Tentative Action/State at Recent PastFrequency: 6 + NoneAdverbials: /lʔān/'now';...Examples

(a) /lʔān sayakūnu ʔaliyyun qad sāfar ʔilā
baghdād/ (1.27)

'Ali will have travelled to Baghdad by now.'

(b) /sayakūnu ʔakhi sāfar lʔān/ (1.44)

'My brother will have travelled by now.'

(c) /zaki sayakūnu sāfar ʔilā lqāhiya lʔān/ (1.58)

'Zeki will have travelled to Cairo by now.'

2. To indicate a Hypothetical Present or Recent Past

(with /lawlā/'if not')

Frequency: None + 1Adverbials: /lʔān/'now';...Examples

(a) /qāla biʔanna lmühādara satakūnu ntahat lʔān
lawlā ʔasʔilatu lhādirīna lkathīra/ (2.88)

((He) said that the lecture will have ended
now if not for the many questions from the
audience.)

'He said that the lecture would have ended by
now if it had not been for the many questions
from the audience.'

PRE-LATER PAST : /kāna sayakūnu fa9al/

(A) Systematic Functions

1. To refer Tentatively to an Action which was planned to Precede a Point of Time at Post-Past (Past Point of Reference)

Frequency: 10 + 2

Adverbials: /ṣabāḥan/'in the morning'; /masāʔan/'in the evening'; /fi dhālika lwaqt/'at that time'; /9indamā taraktuhu bilʔams... ba9da qalīl/'a little while after I left him yesterday';...

Examples

- (a) /kāna muḥammad sayakūnu sāfar ṣabāḥan/ (1.8)
(Mohammad would have went in the morning.)

'Mohammad would have gone by the morning.'

- (b) /kāna ṭṭālibu sayakūnu sāfar masāʔan/ (1.37)
(The student would have went in the evening.)

'The student would have gone by the evening.'

- (c) /kāna ʔahmad sayakūnu sāfar fi dhālika lwaqt/ (1.53)
'Ahmad would have travelled by that time.'

- (d) /9indamā taraktuhu bilʔams, kāna sayakūnu katab risāla ʔilā wālidihī ba9da qalīl. walākin yabdū ʔannahu qad ghayyar raʔyah ba9da mughādarati/ (2.79)

(When I left him yesterday, he would have wrote a letter to his father after a little

while. But it seems that ...)

'A little while after I left him yesterday,
he would have written a letter to his
father, But it seems that he changed his
mind after I left.'

2. To refer to a Hypothetical Action/State which
Preceded a Point of Time at Post-Past (usu. with
/lawlā/'if not')

Frequency: 19 + 4

Adverbials: /qabla ?an tamtura ssamā?/'before it
rained'; /?amsi/'yesterday'; /ba9da
takharrujihi/'after his graduation';...

Examples

- (a) /kāna tṭālib sayakūnu sāfar qabla ?an
tamtura ssamā? lawlā radā?ati jjaw/ (1.1)
'The student would have travelled before it
rained but for the bad weather.'
- (b) /law lam ?alḥaq bihi lakāna sayakūnu sāfar
?amsi/ (1.22)
'If I (had) not caught him, he would have
travelled yesterday.'
- (c) /qāla bi?annahu kāna sayakūnu sāfar ba9da
takharrujihi lawlā wafāt wālidihī/ (1.67) &
(2.72)
'He said he would have travelled after his
graduation but for the death of his father.'

(B) Non-Systematic Functions1. To refer to a Hypothetical Action/State at Recent PastFrequency: 5 + NoneAdverbials: /lʔān/'now'; /lyawma/'today';...Examples

- (a) /kāna muḥammad sayakūnu sāfar ʔila lbaṣra
lʔān/ (1.15)

'Muhammad would have travelled to Basrah
by now.'

- (b) /lawlā mā ḥadatha 9aṣra ʔams lakāna sayakūnu
sāfar lyawm/ (1.33)

'He would have travelled today but for what
happened yesterday afternoon.'

- (c) /kāna muḥammad sayakūnu sāfar lʔān lawlā
taʔakhkhur maw9id sayri lqitār/ (1.55)

'Muhammad would have travelled by now but for
the delay in the train departure.'

2. To refer to a Hypothetical Action/State at FutureFrequency: 1 + NoneAdverbials: /ghadan/'tomorrow';...Examples

- (a) /kāna ṭṭālib sayakūnu sāfar ghadan/ (1.10)

'The student would have travelled by
tomorrow.'

SIMULTANEOUS LATER-PRESENT : /sayakūn fa9il /

(A) Systematic Functions

1. To indicate Simultaneity between an Action/State and a Future Point /Period of Time

Frequency: 49 + 1

Adverbials: /fi ssā9a l9āshira/'at ten o'clock';
 /ghadan zuhran/'tomorrow at noon';
 /ba9da sā9a mina l?ān/'after an hour
 (from now); /laylan/'at night';...

Examples

- (a) /satakūn nā?ima fi ssā9a l9āshira/ (1.2)

'She will be sleeping at ten o'clock.'

- (b) /satakūn fāṭima nā?ima ghadan zuhran/ (1.20)

'Fatima will be sleeping tomorrow at noon.'

- (c) /?alfatāt satakūn nā?ima laylan/ (1.52)

'The girl will be sleeping at night.'

- (d) /sayakūn salīm musāfir ?ilā baghdād ghadan/ (2.77)

'Salīm will be travelling to Baghdad
 tomorrow.'

2. To indicate Simultaneity between an Action/State and a Point/Period at Near Future

Frequency: 1 + None

Adverbials: /l1ayla/'tonight';...

Examples

- (a) /laylā satakūn nā?ima l1ayla/ (1.5)

'Layla will be sleeping tonight.'

(B) Non-Systematic Functions1. To indicate Simultaneity with a Pre-future Point/Period of TimeFrequency: 1 + NoneAdverbials: /qabla ?an tusāfir/'before she travels';...Examples

(a) /qabla ?an tusāfir satakūn nā?ima/ (1.23)

'Before she travels, she will be sleeping.'

2. To indicate Simultaneity with a Post-Future Point/Period of TimeFrequency: 3 + 1Adverbials: /ba9da ẓẓuhri/'in the afternoon';

/ba9da lghurūb/'after sunset'; /ba9da

nihāyati l?imtiḥān ghadan/'after the

end of the examination tomorrow';...

Examples

(a) /zaynab satakūn nā?ima ba9da ẓẓuhri/ (1.16)

'Zaynab will be sleeping in the afternoon.'

(b) /satakūn ṭṭuyūr nā?ima ba9da lghurūb/ (1.53)

'The birds will be sleeping after sunset.'

(c) /sayakūn zaki dhāhib ?ila ssīnama ma9i

ba9da nihāyati l?imtiḥān ghadan/ (2.89)

'Zeki will be going to the cinema with me
after the examination tomorrow.'

3. To indicate a Tentative Action/State at Present or Near Future

Frequency: 7 + None

Adverbials: /l?ān/'now';...

Examples

(a) /satakūn ?ukhti nā?ima l?ān/ (1.1)

'My sister will be sleeping now.'

(b) /satakūn hind nā?ima l?ān/ (1.15)

'Hind will be sleeping now.'

(c) /satakūn ṭṭifla nā?ima l?ān falā tūqizhā/ (1.57)

'The baby will be sleeping now, so don't wake her up.'

SIMULTANEOUS LATER-PAST : /kāna sayakūnu fā9il/

(A) Systematic Functions

1. To indicate Simultaneity between an Action/State and a Point/Period at Post-Past (Past Point of Reference)

Frequency: 13 + None

Adverbials: /fi ṣṣabāḥ/'in the morning'; /ba9da ?an ra?aytuhu bil?ams/; /ba9da dhālika/'after that';...

Examples

(a) /kāna ṭṭiflu sayakūn nā?im fi ṣṣabāḥ/ (

'The baby was to be sleeping in the morning.'

(b) /kāna zayd sayakūn nā?im ba9da ?an ra?aytuhu

bil?ams

(1.12)

'Zayd was to be sleeping after I saw him
yesterday.'

(c) /kāna lwalad sayakūn nā'im ba9da dhālika/
(1.48)
'The boy was to be sleeping after that.'

2. To indicate Simultaneity between a Hypothetical
Action/State and a Point/Period of Time at Post-
Past (usu. with /lawlā/'if not')

Frequency: 18 + None

Adverbials: /ba9da wuṣūlihi/'after his arrival';
/ba9da qalīl/'after a while';...

Examples

(a) /kāna sayakūn nā'im ba9da wuṣūlihi lawlā
taʔakhkhurihi/ (1.17)

'He would have (been) sleeping after his
arrival but for his delay.'

(b) /kāna sayakūn nā'im ba9damā raʔaytuhu
bilʔams/ (1.38)

'He would have (been) sleeping after I saw
him yesterday.'

(c) /kāna say^akūn nā'im ba9da qalīl lawlā ziyārat
ʔakhīhi/ (1.63)

'He would have (been) sleeping after a while
but for his brother's visit.'

(B) Non-Systematic Functions1. To indicate a Hypothetical Action/State at Simultaneous PresentFrequency: 8 + NoneAdverbials: /lʔān/'now';...Examples

(a) /kāna lwalad sayakūn nāʔim lʔān/ (1.11)

'The boy would have (been) sleeping now.'

(b) /kāna sayakūn nāʔim lʔān lawlā ḍḍajja
fi lkhārij/ (1.68)'He would have (been) sleeping now but
for the noise outside.'2. To indicate a Hypothetical Action/State Simultaneous with a Point/Period in the FutureFrequency: 1 + NoneAdverbials: /ghadan/'tomorrow';...Examples(a) /kāna marwān sayakūn nāʔim ma9a mājida ghadan
lawlā 9adam qabūlihā/ (1.65)'Marwān would have (been) sleeping with
Majida tomorrow but for her disapproval.'IV. General Conclusions

After the above detailed inventory on the functions of tenseemes has been concluded, some general conclusions may now be made. The first is that the

above analysis on the functions of Arabic tenseemes has only been possible by incorporating temporal adverbials as a major criterion of classification. This very fact points emphatically to the prominent place that temporal adverbials assume in any tense system and to their major role in any attempt to analyze and understand such systems. All this leads to the conclusion that any analysis of a tense system, and of its functions in particular, that incorporates temporal adverbials in its subject matter will yield a very considerable amount of information.

Functions, it has also become clear, are mostly to be considered as the product of specific associations between certain tenseemes and temporal adverbials of certain notional categories. This will lead us to the conclusion that any teaching approaches that present the learners with tenseemes alone are inadequate and unrealistic.

Another conclusion that can be drawn here is that the above description of tenseemes could not have been so detailed and comprehensive if it had not been preceded by an analysis of the general framework and basic system of Arabic tense. A study of functions is very closely related to the formal temporal markers of each tenseeme and to the complementary distribution of

all tenseemes over the general temporal scope of that tense system. The distinction between systematic versus non-systematic functions would have been impossible without first forming a clear picture of such a complementary distribution of tenseemes. It all boils down to the fact that the approach of the present study from the general to the particular has been conducive to the rigorous analysis of functions carried out in this chapter.

Besides, the above invent^{or}~~ory~~ of tenseme functions clearly reveals the complex and comprehensive nature of the Arabic tense system. Each tenseme, it has become evident, does not have one meaning but rather a host of meanings and connotations. This indicates that grammatical features, tense and aspect in this study, are like lexical items in that each of them can have more than one meaning depending on the context in which they are used.²² Moreover, the comprehensiveness and complexity of the functions and tenseme invent^{or}~~ory~~ for Arabic will refute the assertions expressed by many Arabists that the Arabic tense system is poor and sketchy.²³ Such erroneous conclusions

²²Leech points out a similar conclusion on page 152 of Towards a Semantic Description of English, ...

²³See Review of Literature in Chapter Two of Part Three.

have often been the result of neglecting Modern Arabic and analyzing samples from earlier Classical Arabic.

It might also be worthwhile to remember in this general conclusion that the number of tenses in Arabic has been determined from the present analysis to be only two : past and non-past. The number of tenseemes, on the other hand, is concluded to be seventeen: eight past tenseemes and nine non-past ones. Sixteen of the seventeen tenseemes are listed in the above detailed inventory^{or}. The seventeenth tenseme is /yakūnu sayaf9al■/ which, though missing in the corpus, was analyzed and discussed in Chapters Three and Four of Part Three.

A final remark is felt necessary here: the above inventory^{or}, though comprehensive, is not exhaustive. By its very nature, any corpus cannot be complete. Some functions of some Arabic tenseemes may thus be not represented in the above inventory. Yet, it must be remembered that the corpus for the present analysis of Arabic tense is not haphazardly collected. It was elicited by two carefully constructed experimental tests. This may have formed a fairly reasonable safeguard against losing sight of any of the systematic or major functions of Arabic tenseemes.

PART FOUR
THE CONTRASTIVE ANALYSIS

CHAPTER ONE

THE CONTRASTIVE APPROACH

(A) Introduction

Two or more languages may be compared by linguists for two different purposes: either to establish their genetic relationship or to predict and explain pedagogical problems involved in the learning of one by the native speakers of the other. It has consequently become familiar in linguistic circles today to use the term 'comparative linguistics' for comparisons of a genetic nature and to reserve the term 'contrastive linguistics' for pedagogically-oriented linguistic comparisons. This distinction between comparative and contrastive linguistics becomes more relevant when we know that even the methods and data of these two types of linguistic comparisons are different. On the whole, the comparativist uses words and individual sounds as his data for tracing any phylogenetic relationships between languages. The contrastivist, on the other hand, compares systems and sub-systems between languages and his comparison therefore is broader and more comprehensive. Since this is not a study of any genetic or historical nature but rather a description for a pedagogical objective, this comparative part of the study falls

within the scope of contrastive linguistics.

The growth of contrastive linguistics into a systematic branch of linguistics is of a fairly recent date. The first systematic formulation of its linguistic principles can be traced back to Robert Lado's book Linguistics Across Cultures which was published in 1957. Since then hundreds of contrastive studies have appeared which have contributed towards better language teaching methods and materials. Contrastive linguistics is not, however, only relevant to foreign-language teaching; it can also contribute towards the solution of many problems related to machine translation, linguistic typology and bilingual lexicography. It is also hoped that contrastive linguistics will help in the discovery of linguistic universals and in the development of a general theory of human language behaviour. The central focus of contrastive linguistics, however, remains its relevance to teaching and learning foreign languages. Here, the techniques and principles of contrastive linguistics make it possible for contrastivists to compare various features in different languages with a reasonable degree of accuracy and objectivity. Such comparisons help to provide pedagogists with insights into the causes and nature of foreign-language learning problems.

It remains to say a word in this introduction on two comparative techniques that are also pedagogically-oriented and are hence often confused with contrastive linguistics. These are: transfer comparison and error analysis. Transfer comparison describes a certain grammatical system in one language by the categories already set up for another language.¹ In other words, it imposes the description of one language on the other rather than compares two individual and independent descriptions as contrastive linguistics does. Most traditional grammars of English and Arabic are based on transfer comparisons with Latin. Though very limited in application, this comparative method "has its uses in the treatment of particularly intractable language teaching problems, especially in cases of mutual exoticism where the patterns being compared are so different that a straight comparison is always open-ended."²

On the other hand, instead of a systematic comparison by contrastive linguistics to discover sources of interference and to predict and explain

¹See Zellig Harris, "Transfer Grammar," International Journal of American Linguistics (Vol. XX, No. 4, Oct. 1954), pp. 259-270.

²M.A.K. Halliday, Angus McIntosh and Peter Strevens, The Linguistic Sciences and Language Teaching (London: Longmans, Green & Co. Ltd., 1966), p. 120.

potential learning problems, an alternative approach which consists of collecting lists of errors actually made by foreign-language learners has sometimes been used, especially by teachers. An attempt is then made to describe the conflicts between the native and target languages that could have given rise to such errors. This latter approach of linguistic comparison based on classroom errors is called error-analysis. The direct observation of mistakes in classroom situations is undoubtedly valuable but its value is limited by the fact that only few language teachers have the necessary experience and language training to relate errors to their causes and to carry out linguistic comparisons. Moreover, contrastive analysis goes beyond the mere listing of potential errors and provides an explanation of the sources of such errors, the degree of their difficulty and the steps to be taken to lessen interference from the native language of the learners. It is in fact the explanatory power, rather than the predictive power, that forms the essential value of contrastive linguistics. While error-analysis can certainly be of some use in language teaching, contrastive studies seem to be most rewarding and comprehensive when they are based on the comparison of systems rather than on random errors. Those who claim that error analysis

could do in a more direct way the job of contrastive linguistics are confusing the diagnosis of errors on the one hand with their explanation, prevention and cure on the other.³

(B) The Contrastive Approach

(i) The Structural Approach

After having examined many contrastive analyses as well as many studies on the principles of contrastive linguistics, the writer has arrived at the same conclusion as the Yugoslav contrastivist Rudolf Filipovic, viz. that "none employs a specific and consistent method that might be regarded as the method of contrastive analysis."⁴ On the whole, however, there seem to be two main comparative approaches utilized in current contrastive analyses. These are: the structural vs. the transformational approaches. The former approach was originally put forward by Robert Lado in 1957 and is outlined in detail in his book Linguistics Across Cultures. Two years later the structural approach found its first systematic appli-

³For an example of such views, see Eric Hamp, "What A Contrastive Grammar Is Not, If It Is," Monograph Series on Languages and Linguistics (Georgetown University, 1968), Number 21, p. 146.

⁴Rudolf Filipovic, "The Yugoslav Serbo-Croatian-English Contrastive Project," Papers in Contrastive Linguistics, ed. Gerhard Nickel (Cambridge: The University Press, 1971), p.112

cation in the Contrastive Structure Series edited by Charles A. Ferguson and published by the Centre for Applied Linguistics of the Modern Language Association of America. In his pioneering book, Lado outlines the general contrastive approach for any two grammatical structures as follows:

We begin with an analysis of the foreign language and compare its structure by structure with the native language. For each structure we need to know if there is a structure in the native language (1) signaled the same way, that is, by the same formal device, (2) having the same meaning, and (3) similarly⁵ distributed in the system of that language.

Perhaps the structural approach owes its systematization to Lado, but its principles were laid down by Charles Fries as early as 1945 in his book on Teaching and Learning English as a Foreign Language. In this book, Fries states that "the most effective materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner."⁶

Valuable as it may be, the structural contrastive approach is open to criticism on many grounds. First

⁵Robert Lado, Linguistics Across Cultures (Ann Arbor: The University of Michigan Press, Sixth Printing, 1964), p.66.

⁶Charles C. Fries, Teaching and Learning English as a Foreign Language (Ann Arbor: University of Michigan Press, 1945), p.9.

of all, the comparison of complete languages is not feasible since no full description of any human language has yet been achieved by linguistic science. All that is possible today is to compare various similar systems across languages, but never complete languages. Then what is 'a scientific description' and what criteria do we have for identifying such a description? Moreover, neither Fries nor Lado state explicitly the criteria on which to base comparability, or equivalence, between structures of different languages, i.e. how to decide that two structures have the 'same' form or the 'same' meaning or the 'same' distribution. These questions become more relevant in cases when the languages compared come from different language families, as in the case of English and Arabic in the present study. Moreover, there rarely seems to be any full correspondence either formally or semantically between any two structures in two different languages. Neither Lado nor Fries offer us any real help in solving problems of this sort, which any one engaged in actual research in contrastive linguistics would soon face.

(ii) The Transformational Approach

The transformationalists, for their part, have severely criticized the structural contrastive approach on the ground that it only compares surface structures,

and have alternatively put forward their own transformational contrastive approach which focuses on the deep structures and transformations involved in the structures of the systems compared. Transformationalists hold that "at the 'deepest' level of analysis we need a theory which distinguishes explicitly between 'deep' and 'surface' phenomena."⁷ Hence, they conclude that "since the structural view of language lacks this distinction it must be considered inadequate in principle for investigating problems at any except the lowest level of generalization (Buren, p. 15). Moreover, the structuralists have been criticized for their failure to realize the necessity of establishing common categories for any comparisons between languages (Buren, p.3). This failure, transformationalists believe, is due to the basic tenet of structuralism that every linguistic system is a unique law (Buren, p.3). Such a tenet, they conclude is incompatible with the notion of comparison (Buren, p.3).

The transformational contrastive approach to two grammatical structures is summed up by the following quotation: "... plot the two deep structures (they are usually remarkably similar), then plot the two

⁷Paul Van Buren, Contrastive Analysis (Edinburgh: Dept. of Applied Linguistics), mimeographed, p.15.

surface structures (they are usually remarkably different), and then note the contrasting transformational (recoding) rules that connect the two."⁸

A transformational contrastive model, it has been argued

has the advantage of showing not only the direct and superficial, physically manifest similarities and differences between languages, but also the more profound differences and similarities between languages that appear when the rules of sentence formation are required to be explicitly formulated.⁹

Undeniably, the transformational theories of grammar as presented in the writings of Chomsky, Fillmore, Katz, Klima, Fodor, Halle, and others, give the best available description of various linguistic features and should therefore appeal to contrastivists. Transformational grammars have in fact even appealed to Robert Lado, the pioneer of the structural contrastive approach, who concludes in a recent article that "generative transformational grammar, then, offers us the possibility of making contrastive studies with greater explanatory power..."¹⁰ Despite all this,

⁸W.G. Moulton, "The Use of Models in Contrastive Linguistics, " 19th Annual Round Table (Washington: Georgetown University, 1968), p.28.

⁹Leonard Newmark, "Grammatical Theory and the Teaching of English as a Foreign Language," Readings in Applied Transformational Grammar, ed. Mark Lester (New York: Holt, Rinehart and Winston, Inc., 1970), p.214

¹⁰Robert Lado, "Contrastive Linguistics in a Mentalistic Theory of Language Learning," 19th Annual Round Table, p.126.

however, the transformational contrastive approach seems to be as vulnerable to criticism as the structural one. First of all, it is a well-known fact that the transformational-generative grammar is a grammar of linguistic competence rather than performance. Though an account of competence can be valuable for its explanatory power in contrastive linguistics, it is the ability to perform that really matters in language teaching, which is after all the main objective of contrastive analysis. Chomsky himself has already made the distinction between linguistic grammars, which account for competence, and pedagogic grammars, which aim at providing students with the ability to understand and produce sentences of a particular language.¹¹ Moreover, recent modifications introduced into the transformational model, especially those made by Lakoff, make deep structures extremely complex and abstract.¹² Such deep structures seem to be hardly relevant for pedagogical purposes. Winter points out in this respect that "an alleged agreement at a deeper stratum that is not manifested by an agreement on the surface

¹¹Chomsky, Topics in the Theory of Generative Grammar (The Hague, Mouton, 1966), p.10.

¹²As an example, see George Lakoff's book on Irregularity in Syntax (New York: Holt, Rinehart and Winston, Inc., 1970).

is not taken to be of any consequence for the work of a comparative linguist.¹³ Another serious drawback in the transformational contrastive approach is its preoccupation with form and syntax at the expense of meaning and functions. W.R. Lee rightly points out that a "thorough comparison [should] involve a consideration of the various uses of, say, tense-forms in differing kinds of situational and largely extralinguistic contexts."¹⁴ However, despite all its shortcomings, some aspects of the transformational approach are believed here to have a certain value and are therefore incorporated in the contrastive approach of the present study which is outlined below.¹⁵

(iii) The Formal-Functional Contrastive Approach

Out of the dissatisfaction with both the structural and the transformational contrastive approaches, an alternative contrastive approach that combines what is good in both and adds new comparative dimensions and contrastive techniques has been developed and applied in the present study. This contrastive approach lays due emphasis on both the

¹³Werner Winter, "Basic Principles of the Comparative Method," Methods and Theory in Linguistics ed. Paul L. Garvin (The Hague: Mouton, 1970), p.147.

¹⁴W.R. Lee, "Thoughts on Contrastive Linguistics.....," 19th Annual Round Table, p.190.

¹⁵These aspects and their contrastive value are explained in section (iii) of this chapter.

forms and functions of the linguistic features being compared. By concentrating on meaning as well as on syntax, it is believed that contrastive analysis will become more rewarding and relevant to language teaching. Comparable forms of English and Arabic tenseemes are contrasted to pinpoint any formal features that could cause learning problems in the transfer from one language to the other. This will directly take account of the performance of learners of either language. For the purposes of obtaining a more perceptive and deeper analysis and explanation of learning problems, the relevant transformational histories and deep structures of all comparable tenseemes in English and Arabic will also be outlined and examined in the contrastive process.

Comparability of linguistic features between languages may be based on two criteria: formal equivalence and functional equivalence. Whereas formal equivalence is relatively easy to establish, functional equivalence may be more difficult to set up. However, both types of equivalence are prerequisites for comparability since both the forms as well as their distribution in the native language tend to be transferred when learning a foreign language.¹⁶

¹⁶Lado, Linguistics Across Culture, p.66.

The formal temporal markers of tenseemes, as analyzed in Parts Two and Three of the present study, will be taken as the basis for establishing formal equivalence between English and Arabic tenseemes. Thus two tenseemes will be regarded as equivalent if they are formally marked by the same temporal markers in English and Arabic. Though essential however, formal equivalence is regarded here as only the first step of establishing comparability. Functional equivalence, i.e. whether two forms are distributed similarly in two languages is in the last analysis taken to be the basic requirement of comparability. It has been decided, therefore, to begin detecting comparable tenseemes by the criterion of formal equivalence since it has been observed in the course of the present study that formally equivalent^a linguistic features in English and Arabic tend to function similarly in both languages in the majority of cases. The ultimate basis for comparing grammatical systems in two different languages should, however, be notional rather than formal.¹⁷ To establish notional equivalence, the present contrastive analysis has resorted to contextual translation. If two or more tenseemes could

¹⁷J.C. Catford, "Contrastive Analysis and Language Teaching," 19th Annual Round Table, p.169.

not possibly occur as translation equivalents in English and Arabic, they are not to be compared. This use of the process of translation could thus be viewed as

the progressive selection among categories and items in the target language that are recognized on contextual criteria as equivalent to categories and items in the source language, each category and item having a set of potential equivalents range on a scale of probability. (Halliday et al, p.125)

Two or more comparable tenseemes may thus partially overlap formally and/or semantically. These cases of partial overlap are in fact the primary concern of contrastive analysis. This makes clear that the purpose of comparison should be to reveal differences against a background of similarity.

To sum up, the formal-functional approach which is applied for the contrastive analysis in the present study combines relevant features from both the structural and the transformational approaches. It focuses on the comparison of surface structures of tenseemes while paying due attention to their deep structures and transformational rules. It compares the formal features of equivalent tenseemes as well as their meanings and distributions as manifested by their functions. Lastly, the value of this analysis lies in its widening the scope of the comparative process. It obliges contrastivists to have a broader

view of their data and to think deeper about the various linguistic aspects that are relevant in the languages under investigation. The practical contrastive technique that emerges from the formal-functional approach described above is fully detailed in the next chapter.

CHAPTER TWO

T H E C O M P A R I S O N

(A) Establishing Equivalence

As a starting point for the comparison between English and Arabic tenseemes, the two sets of tenseemes listed in the inventories of Chapters . Six . of Part Two and Part Three are compared respectively. The purpose of this comparison is to establish formal equivalence between English and Arabic tenseemes. Hence the criterion of comparability here is the type(s) and number of temporal markers that formally exist in the tenseemes of the two languages. Two tenseemes will be considered as formally equivalent if they possess the same type and number of temporal markers. In the table below, English tenseemes are listed first since the present study is basically geared towards the discovery and analysis of the learning problems of English as a foreign language in the Arab world. In foreign language learning and teaching, it is the target language system that constitutes the desired linguistic behaviour, and in order to account for all the particulars of tenseemes in English, English tenseemes are taken as the basis for all the aspects of the following comparison.

The following is the table of formal equivalence between pairs of English and Arabic tenseemes. The

descriptive ^{el}label for each formally comparable pair is given in the third column as has been used in the description of the two concerned tenseemes in the earlier parts of the present study. The verbs write and fa9al are used in columns one and two as cover symbols for all English and Arabic verbs respectively:

TABLE 105
FORMAL EQUIVALENCE BETWEEN
ENGLISH AND ARABIC TENSEMES

ENGLISH	ARABIC	DESCRIPTIVE LABEL ^{EL}
1. writes	yaf9al	Basic Present
2. wrote	fa9al	Basic Past
3. has written	yakūnu fa9al	Earlier Present (Non-past)
4. had written	kāna fa9al	Earlier Past
5. will write	sayaf9al	Later Present
6. would write	kāna sayaf9al	Later Past
7. is writing	yakūnu fā9il	Simultaneous Present (Non-past)
8. was writing	kāna fā9il	Simultaneous Past
9. has been writing	-	Simultaneous Earlier-Present
10. had been writing	-	Simultaneous Earlier-Past
11. will be writing	sayakūnu fā9il	Simultaneous Later-Present

Contd...

Table 105 contd.

ENGLISH	ARABIC	DESCRIPTIVE LABEL ^{EE}
12. would be writing	kāna sayakūnu <u>fā9il</u>	Simultaneous Later-Past
13. will have written	sayakūnu fa9al	Pre-Later Present
14. would have written	kāna sayakūnu fa9al	Pre-Later Past
15. will have been writing	-	Simultaneous Pre-Later Present
16. would have been writing	-	Simultaneous Pre-Later Past
17. -	yakūnu yaf9al	Continuous Non-Past
18. -	kāna yaf9al	Continuous Past
19. -	sayakūnu yaf9al	Continuous Later-Present
20. -	kūna sayakūnu yaf9al	Continuous Later-Past

A cursory look at Table 105 above reveals that four English tenseemes, viz. tenseemes number 9, 10, 15 and 16, do not have formal equivalents in Arabic. These tenseemes must now be given special attention since they form potential learning problems for Arab learners of English. Arab students must learn to understand and use these four tenseemes when learning English, and Arabic lacks formally equivalent tenseemes. On the other hand, the four Arabic tenseemes that have no formal equivalents in English, viz. 17,

18, 19, and 20, need not detain us here since our ultimate concern in the present study is with the learning problems of Arabs learning English and not with those of speakers of English learning Arabic.

Useful as it may be, the information provided by Table 105 above is not adequate for the purposes of a detailed comparison. For one thing, it is axiomatic in linguistics that the significance of any form in language is the sum-total of the situations in which it is used. In other words, the functional distribution of a linguistic form determines to a large extent the significance, or meaning, of that form. And since in any discussion on tense, the analysis of temporality, rather than of mere form, should be the ultimate objective it becomes evident that Table 105 above cannot on its own be used as the basis of any sound contrastive analysis of the two tense systems of English and Arabic. Moreover it is revealed by many contrastive analyses that there is rarely a complete one-to-one correspondence between any two systems of any two languages.¹ It has also been pointed out in the previous chapter that comparability cannot be solely established on formal bases; notional criteria have to be included in order to obtain a clearer and a more comprehensive description.²

¹For an example of such studies, see William Bull's Time, Tense, and the Verb.

²See page 755.

The inadequacy of Table 105 to establish temporal and functional equivalence between English and Arabic tenseemes prompts us to explore other avenues of comparison to gain more information that could be used to supplement that already presented by Table 10~~2~~⁵. Translatability, i.e. whether two linguistic forms can be translated into each other in two languages, is often used in contrastive linguistics to establish functional equivalence, as has already been said in the preceding chapter.³ It has therefore been decided here to use the technique of translation to establish functional and temporal equivalence between English and Arabic tenseemes. For this purpose, all English sentences in the general inventory of functions of English tenseemes in Chapter Six of Part Two have been translated into Arabic.⁴ Then for each English tenseme, the Arabic tenseme(s) used in the translation of all its functions given in the inventory is/are listed. It is necessary to point out, however, that it has been found in many cases during the translation process that an English tenseme in a given function can be translated by more than one Arabic tenseme. In all such cases, the most formally similar Arabic tenseme to the English tenseme in that function is selected from among the alternative translation equivalents. Thus the

³See pages 755 - 756.

⁴The Arabic translation is given in Appendix D.

translation carried out in this study to establish equivalence is to a large degree based upon the formal equivalence established throughout the present study and outlined in Table 105 above. Without this proviso of the priority of formal equivalence in the translation, the resulting equivalence of the translation process would be of little value for any meaningful comparison since it would be difficult to define comparable features for any useful contrastive analysis. It is also important to notice that different functions of the same English tenseemes might have to be translated by different tenseemes in Arabic. This will result in many cases of one-many translation equivalence in the table of functional equivalence reported below. Table 106 represents the functional equivalence established by the findings of the translation process described above:

TABLE 106
FUNCTIONAL EQUIVALENCE BETWEEN ENGLISH
AND ARABIC TENSEMES

ENGLISH	ARABIC
1. writes	yaf9al
2. wrote	(a) fa9al, (b) kāna yaf9al
3. has written	(a) yakūnu fa9al, (b) fa9al (c) kāna yaf9al
4. had written	kāna fa9al

contd...

Table 106 contd.

ENGLISH	ARABIC
5. will write	sayaf9al
6. would write	(a) kāna sayaf9al (b) sayaf9al (c) kāna yaf9al
7. is writing	(a) yakūnu yaf9al, (b) yaf9al
8. was writing	kāna yaf9al
9. has been writing	(a) yakūnu fa9al, (b) yaf9al
10. had been writing	kāna yaf9al
11. will be writing	(a) sayakūnu yaf9al (b) sayaf9al
12. would be writing	(a) kāna sayaf9al (b) sayaf9al (c) kāna yaf9al
13. will have written	sayakūnu fa9al
14. would have written	kāna sayakūnu fa9al
15. will have been writing	sayakūnu fa9al
16. would have been writing	(a) kāna sayakūnu fa9al (b) kāna sayakūnu yaf9al

The fallacy of a complete one-to-one correspondence between linguistic systems of two different languages can be clearly seen from the above table. The Arabic basic-present tense yaf9al and the basic-past fa9al, for example, appear in the table as the equivalents of three and two different

English tenseemes respectively. Yet it can also be seen from the above table that formal equivalence is a useful basis for the establishment of functional equivalence since formally-equivalent tenseemes are found in the translation process carried out here to be functionally-equivalent as well. This formally-based translation, however, would not be possible, especially in the case of genetically unrelated languages such as English and Arabic, if it were not based on a thorough description of the linguistic features of the systems being translated.

Before proceeding to the actual comparison as such of the above equivalent tenseemes in Table 106, it is important to point out that some common tenseemes do not appear on the Arabic side in the above-mentioned table. The limited size of the translation data used for establishing equivalence may be responsible for this phenomenon. It is obvious that for any comprehensive comparison we need to account not only for all the tenseemes of the target language but also for those of the native language since both play an important role in the learning process. It thus seems worthwhile to investigate this point further before drawing any final conclusions on equivalence from Table 106 above.

What is needed is obviously some additional translation data. To supplement the translation data, the writer has specifically constructed a number of English sentences whose translations will account for the missing Arabic tenseemes.

A few other sentences have also been set up to illustrate certain functions missing in the general inventories of tenseemes in Parts Two and Three. The following is a list of these sentences with the Arabic translation appearing under each of them:

1. (a) Whenever I visit him, he is sleeping.

(b) /kullama ʔazūruhu yakūnu nāʔim/

2. (a) When I met him last night, he was walking.

(b) /9indamā qābaltuhu fi llayla lmādiya kāna māshiyan/

3. (a) He had been sleeping for some time when I arrived.

(b) /kāna naʔim liba9di lwaqti 9indamā waṣaltu/

4. (a) I will be sleeping late next Sunday morning.

(b) /saʔakūnu nāʔim liwaqtin mutaʔakhkhir sabāḥa yawmi
lʔahadi lqādim/

5. (a) She would be sleeping but for the noise.

(b) /kānat satakūnu nāʔima lawla dḍajja/

6. (a) He said that the train would have gone before she arrived at the station.

(b) /qāla biʔanna lqitār sayakūnu dhahab qabla ʔan
taṣila ʔila lmahatta/

7. (a) He would have been sleeping now but for the noise.

(b) /kāna sayakūnu nāʔim lʔān lawla dḍajja/

The above seven pairs of sentences, few as they may be, are adequate for our purposes to establish translation equivalence between the Arabic tenseemes missing from Table 106 and their English equivalents. A large number of English and Arabic

sentences could be constructed on the pattern of each of the above fourteen sentences. The equivalence established by the above sentences could be outlined in more general terms as follows:

<u>ENGLISH</u>	<u>ARABIC</u>
1. is writing	yakūnu fā9il
2. was writing	kāna fā9il
3. had been writing	kāna fā9il
4. will be writing	sayakūnu fā9il
5. would be writing	kāna sayakūnu fā9il
6. would have written	sayakūnu fa9al
7. would have been writing	kāna sayakūnu fā9il

Incorporating the above newly-established equivalence into Table 106 on the general functional equivalence would give us the following enlarged table:

TABLE 107
EQUIVALENT TENSEMES IN ENGLISH
AND ARABIC

ENGLISH	ARABIC
1. writes	yaf9al
2. wrote	(a) fa9al, (b) kāna yaf9al

contd...

Table 107 contd.

ENGLISH	ARABIC
3. has written	(a) yakūnu fa9al (b) fa9al (c) kāna yaf9al
4. had written	kāna fa9al
5. will write	sayaf9al
6. would write	(a) kāna sayaf9al (b) sayaf9al (c) kāna yaf9al
7. is writing	(a) yakūnu fā9il (b) yakūnu yaf9al (c) yaf9al
8. was writing	(a) kāna fā9il (b) kāna yaf9al
9. has been writing	(a) yakūnu fa9al (b) yaf9al
10. had been writing	(a) kāna fā9il (b) kāna yaf9al
11. will be writing	(a) sayakūnu fā9il (b) sayakūnu yaf9al (c) sayaf9al
12. would be writing	(a) kāna sayakūnu fā9il (b) kāna sayakūnu yaf9al

contd...

Table 107 contd.

ENGLISH	ARABIC
	(c) kāna sayaf9al
	(d) sayaf9al
	(e) kāna yaf9al
13. will have written	sayakūnu fa9al
14. would have written	(a) kāna sayakūnu fa9al
	(b) sayakūnu fa9al
15. will have been writing	sayakūnu fa9al
16. would have been writing	(a) kāna sayakūnu fa9al
	(b) kāna sayakūnu fā9il
	(c) kāna sayakūnu yaf9al

(B) Interference from Arabic

The above table reveals many interesting facts about the type and degree of interference from Arabic that will be faced by learners of English whose native language is Arabic. The direction of interference, it is perhaps necessary to point out, is from the native language to the target language since a learner of a foreign language tends to transfer the linguistic habits of his native language to the language he is learning.⁵

⁵Robert Lado, Linguistics Across Cultures, p.58

A detailed analysis and discussion of problems of interference from Arabic will be the subject of the next chapter; perhaps it suffices here to refer briefly to some of such problems involved in the learning process of English as a foreign language in Arab countries. To take the Arabic tenseme yaf9al, for example, it is shown in Table 107 above that this tenseme may be the equivalent of any of the three formally distinguishable English tenseemes writes, is writing, and has been writing. An Arab could correctly use the same tenseme yaf9al in any of the following three Arabic sentences, for example:

1. /huwa yaktubu shshi9ra/

(he write the poetry)

'He writes poetry.'

2. /huwa yaktubu l?ān/

(he write now)

'He is writing now.'

3. /huwa yaktubu l?uṭrūha mundhu sanatayn/

(he write the thesis for two years)

'He has been writing the thesis for two years.'

The English sentences equivalent to the above three Arabic sentences require, as can be seen from the translations above, three different tenseemes. The problem of an Arab learner of English in this case would therefore be to learn to use a different tenseme in each of the linguistic situations depicted in the above three sentences. Similar learning problems are involved in the case of fa9al, sayaf9al,

kāna yaf9al, sayakūnu fa9al, and kāna sayakūnu fa9al which appear as the equivalents of more than one English equivalent tenseme each.

Conversely, another type of learning problem is involved in cases where it is shown in Table 107 that one English tenseme has more than one Arabic equivalent. This is the case, for example, of will be writing which has three Arabic equivalents: sayaf9al, sayakūnu yaf9al, and sayakūnu fā9il. The problem in such situations is different from those mentioned earlier. Whereas in the cases mentioned earlier an Arab learner of English has to make a choice which he is not used to in his own language, in this case he rather has to discard, or 'unlearn', some of the distinctions made in his own native language. The danger, however, is that such native-language distinctions might be carried over to English where they are not to be made. An Arab may thus be tempted to produce the ungrammatical English tenseme *will be write on the formal analogy of its grammatical Arabic functional equivalent sayakūnu yaf9al. Problems of interference, whether formal or functional, may be identified and explained more specifically by reference to the comparative tables that follow. A detailed interpretation of the comparative tables given in Section (C) is, however, kept to Chapter Three in this Part of the study.

(C) The Contrastive Analysis
of Equivalent Tensemes in English and
Arabic

The information on equivalence between English and Arabic tensemes provided by Table 107 above is taken here as the basis of the following contrastive analysis. Each of the sixteen English tensemes listed in Table 107 is compared with its Arabic translation equivalent(s) in two ways: formally and functionally. The objective of the contrastive analysis is to discover any differences in the formal and functional distribution of equivalent English and Arabic tensemes. It is these differences, as has been said earlier, that constitute potential learning problems and are therefore to be identified.

Equivalent tensemes in English and Arabic are compared in two types of contrastive tables below: formal and functional. This is so since both forms and functions of the native language tend to be transferred to the target language during the learning process, as has been mentioned in Chapter One, in this part of the study. Each of the formal contrastive tables below consists of two columns: one for the English tenseme and one for its Arabic equivalent(s). At the top of the English column on the left, the form of the English tenseme in question is given. Opposite it on the right column the Arabic translation equivalent(s) of that English tenseme is/are listed. The Arabic formal equivalent to the English

tenseme being compared, or its closest formal equivalent when no formal equivalent is available in Arabic,⁶ is listed first followed by the other Arabic functional equivalent(s) when one or more exists. This listing of equivalent tenseemes is then followed by sentences exemplifying both the English tenseme and its Arabic equivalent(s). The English tenseme being compared and its formal Arabic equivalent are each used in one sentence that depicts only one of their systematic functions. There is no need to give a sentence for each function as this has already been done in the general inventory of functions in Parts Two and Three for all English and Arabic tenseemes. When more than one Arabic equivalent exists for any English tenseme, a separate exemplificatory English sentence has to be given to depict the function that would require each of the Arabic translation equivalents. When this has been done, both the English sentence(s) and its/their Arabic translation(s) are then analyzed in their respective columns. The transformation-generative approach has been used in this analysis as it is believed to provide the most satisfactory analytical procedure yet available in linguistics. For the purposes of this analysis, the transformational and generative rules given in Chapters Five of Parts Two and Three are used for English and Arabic respectively. It is necessary to keep in mind, however, that

⁶Formal equivalence is based upon the quality and quantity of temporal markers formally found in tenseemes.

the chief objective of this process is the analysis of the contrastive tenseemes as such. Thus, rather than indulge in unnecessary details, only rules relevant to the structures of the tenseemes in question are included in this analysis. Whenever more than one sentence is found in any contrastive table for any English tenseme, that English tenseme will be transformationally analyzed only in the first sentence, i.e. with its Arabic formal equivalent, or nearest formal equivalent, since there is no need to duplicate the same analysis as far as that tenseme is concerned. Then, finally in each contrastive table, the formal characteristics of the contrastive tenseemes involved are listed opposite each other. The focus here is on the temporal markers, though other characteristic formal features may also be included.

The functional contrastive table for each pair or group of equivalent tenseemes also basically consists of two columns: one for English and the other for Arabic. The Arabic column may, however, be sub-divided into more columns according to the number of Arabic equivalents found for the English tenseme in question. First, in functional contrastive tables which only comprise the English tenseme being compared and its Arabic formal equivalent, as in tables 108B and 111B below, the English tenseme is given on top of the left column and all its functions are listed vertically underneath, each in a square of its own. Then on the Arabic side, the functions of the Arabic formal equivalent are also

listed. Equivalent, or quasi-equivalent, functions of the two formally equivalent tensemes are listed in squares opposite each other. The functions of both English and Arabic tensemes are directly derived from the general inventories of functions in Chapters Six of Parts Two and Three respectively. Functions that are indicated by one tenseme but not by its formal equivalent are also to be listed for both English and Arabic. Opposite each such function, however, ~~a~~ shaded square appears under the other tenseme which lacks that function. These squares are shaded to give them visual prominence since they constitute areas of potential learning problems, as will be detailed in the next chapter.

In contrastive tables with no formal Arabic equivalent to the English tenseme in question, such as tables 116B and 117B below, all the functions of the English tenseme are listed as usual but only those functions that are equivalent or quasi-equivalent to its functional equivalents are listed on the same level. This is to avoid any redundancy of functions since every functional equivalent must appear as the formal equivalent of one of the English tensemes in another contrastive table and it is there that its full list of functions will be listed. Thus, the full inventory of functions of the Arabic tenseme fa9a1, for example, appears in the following contrastive tables only when fa9a1 is compared with its formal equivalent wrote, but not when it

is compared with its functional equivalent has written. In cases where there is more than one functional equivalent, blank unshaded squares appear under those functional equivalents, opposite any function of the English tenseme which they are not used to indicate in Arabic in a given contrastive table. This is so since such functions of the English tenseme will always be indicated by another functional Arabic equivalent in that same table. The only potential problem in such cases would be a formal, rather than a functional one, since in the case of the functions that are similar between an English tenseme and its functional equivalent, the formal features of that Arabic functionalequivalent that are different from those of the English tenseme in question may be transferred to English and may thus result in ungrammatical English sentences, as will be shown in detail in Chapter Three.

There remains a word to say on contrastive tables that contain both a formal equivalent to the English tenseme in question as well as one or more functional equivalents, as in tables 109B and 113B below. Such tables may contain certain functions of the English tenseme being compared that cannot be indicated by its Arabic formal equivalent and are hence translated by some other functional equivalents. In such contrastive tables, the functions of the two formally equivalent tensemes are listed and contrasted first, with shaded squares for missing functions on both sides, as has been explained at the outset of this section. The other

Arabic functional equivalents will each appear opposite the functions(s) of the English tense which it indicates and which is/are missing among the functions of the Arabic formal equivalent of that English tense. Blank unshaded squares are left under these functional equivalents opposite the functions of the English tense which they do not indicate since these do not constitute learning problems, as has been explained in the previous paragraph. Now, it happens in many of the contrastive tables shown below that some functions of functional equivalents are listed despite the fact that those same functions are also indicated in Arabic by the formal equivalents of the English tenses in question. It is necessary to point out that this is mostly done in the tables when there are any ^{ing}conditional factors, other than the function itself, that would require the use of one tense in Arabic but not the other. For example, both kāna sayaf9al and sayaf9al appear as translation equivalents to would write in the indication of later-past in Table 113B below, though only the former of the two Arabic tenses is the formal equivalent of would write. The functional equivalent sayaf9al, however, is used in Arabic to indicate later-past only in subordinate clauses whereas kāna sayaf9al is used in main clauses only.⁷

⁷ kāna sayaf9al may still appear in subordinate clauses in Arabic but only to indicate hypotheticalness at later-past, as explained in more detail on page 560.

In a limited number of other cases, however, two Arabic tenseemes may be shown to indicate the same function simply as a result of redundancy in the Arabic tense system. Likewise, functions of some functional equivalents that are similar to those indicated by the formal equivalent of the English tenseme in question may also be included when those functions are missing on the English side. The squares of such functional equivalents are also shaded, like those of the formal equivalents, when appearing opposite functions of the English tenseme which they do not indicate in Arabic. But again this is usually done only when there are certain linguistic situations in Arabic that would require the use of these functional equivalents, but not of the formal equivalents of the English tenseme in question. Such a distinction which is made in Arabic may be transferred to English and thus cause some learning problems, as will be shown in Chapter Three. It is for this reason that, against the general principle, functions of certain Arabic functional equivalents are listed when those functions are missing in English. This is the case of sayakūnu yaf9al in Table 118 B below, for example, where it appears in Function (5) though it is not the formal equivalent of will be writing. However, the non-earlier aspect of sayakūnu yaf9al makes it suitable for certain situations in Arabic in which the simultaneous aspect of sayakūnu fā9il would not usually be used.⁸

⁸See pp. 529-531 for a discussion of this point.

Though this distinction is neutralized in will be writing, Arab learners may erroneously carry it to English.

No attempt is made at this stage at any interpretation or prediction of potential learning problems for Arab learners of English. However, it is necessary to point out that although the following contrastive tables are so constructed as to yield maximum information specifically relevant to the problems of Arab learners of English, the direction of comparison in these tables could be reversed so as to make the results relevant to the problems of speakers of English when learning Arabic. Thus, the information provided by the following contrastive tables could be used for predicting and explaining the problems of native speakers of English learning Arabic as well as for predicting and explaining the problems of Arabs learning English. It all depends on the direction of the comparison and the interpretation of the transfer.

The following are the thirty-two contrastive tables described above and used here for comparing the forms and functions of English tenseemes with their Arabic equivalents:

TABLE 108A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : writes	<u>Form</u> : yaf9al
(B) <u>Example</u> He <u>speaks</u> Arabic.	<u>Example</u> /huwa <u>yatakallam</u> l9arabiyya/
(C) <u>Analysis</u> S → NP + VP → NP ₁ + at present + V + NP ₂ Taf → NP ₁ + V + at pres- ent + NP ₂ → he + speak + Ø ₁ + Arabic → he speaks Arabic	<u>Analysis</u> S → NP + VP → NP ₁ + fi lhādir + root + NP ₂ Taf → NP ₁ + root + fi lhādir + NP ₂ → huwa + KLM + P ₁ + l9arabiyya → huwa yatakallam l9arabiyya
(D) <u>Formal Features</u> 1. Presence of non-past tense marker 2. Presence of 's' when the subject is a third person singular ⁹	<u>Formal Features</u> 1. Presence of non-past tense marker 2. Presence of a pro- nominal subject prefix ⁹

contd...

⁹These features are common to all English and Arabic non-past (present) tenseemes. Hence they are to be regarded as contrastive features of all non-past English and Arabic tenseemes and will not therefore be repeated in the remaining contrastive tables.

Table 108A contd..

ENGLISH	ARABIC
3. The verb is obligatorily preceded by a subject. ¹⁰	3. Optionally preceded or followed by a subject. ¹⁰

TABLE 108B

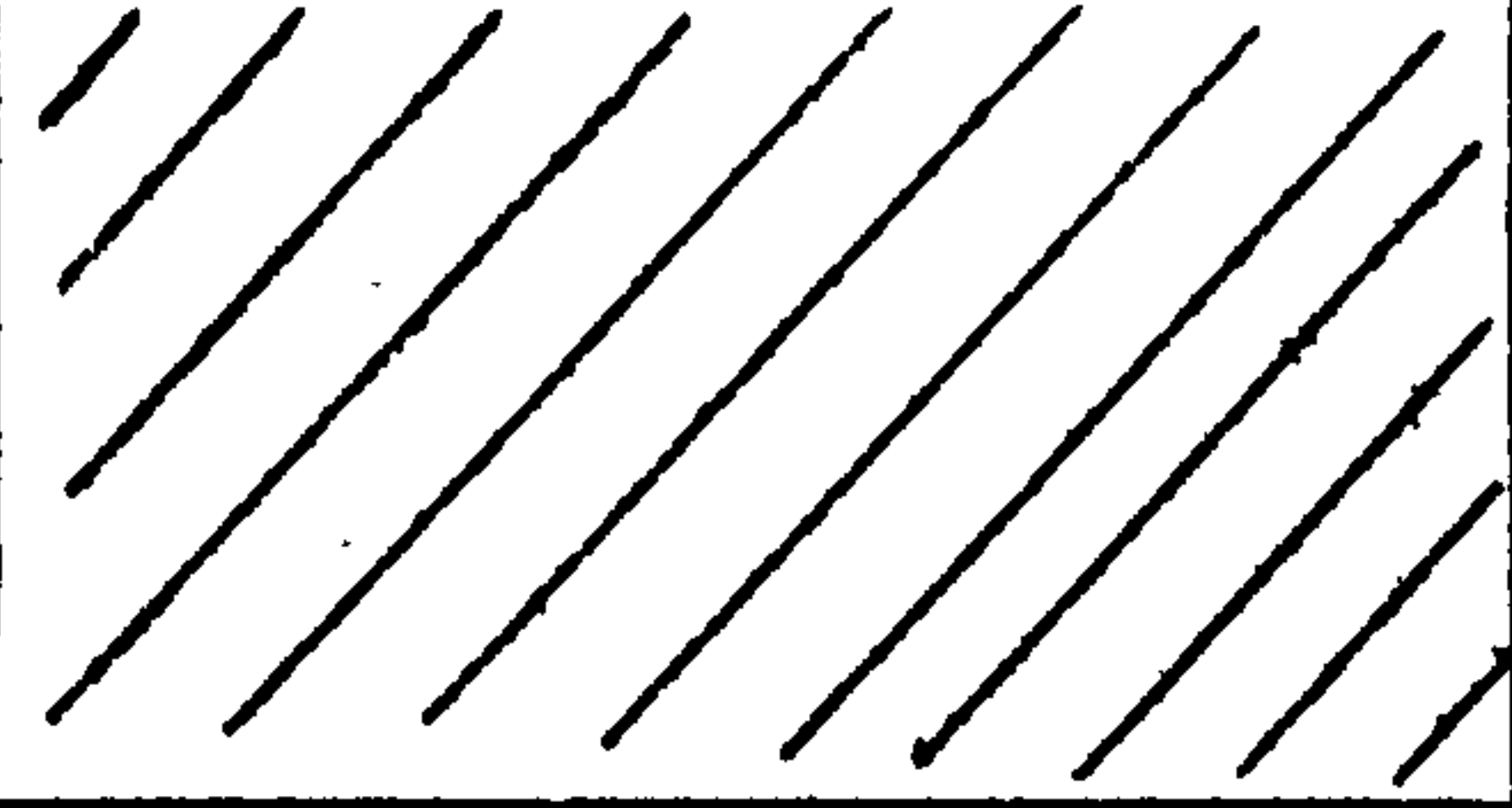
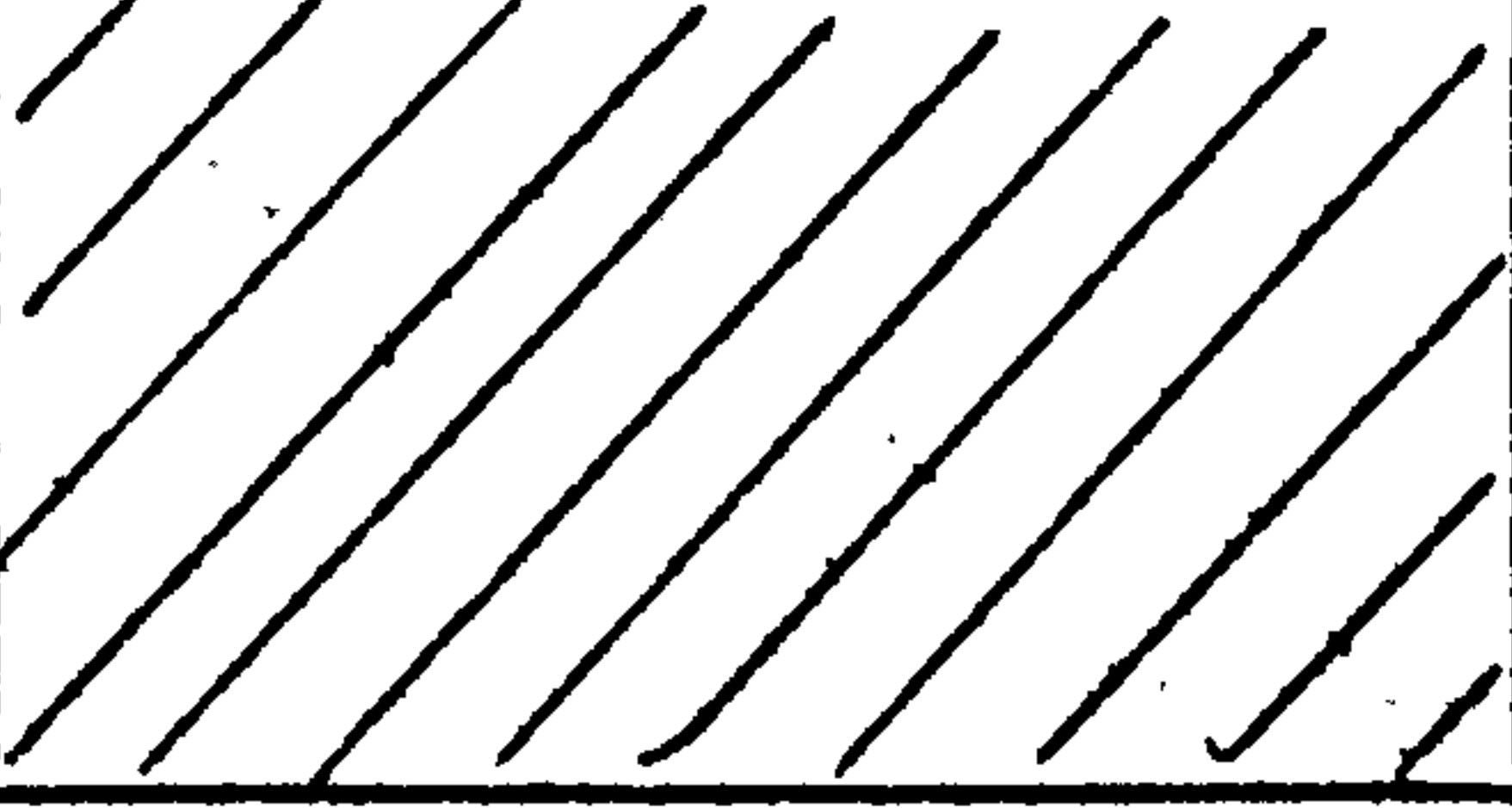
FUNCTIONAL COMPARISON

ENGLISH		ARABIC
writes		yaf9al
1.	<u>To indicate</u> Simultaneous Present	Simultaneous Present
2.	Contemporaneous Present	Contemporaneous Present
3.	Current Habit	Current Habit
4.	General Fact	General Fact
5.	Future Time	Future Time

contd...

¹⁰These contrastive features are found in all English and Arabic tenseemes and are therefore not repeated in the following contrastive tables.

Table 108B contd.

ENGLISH		ARABIC
writes		yaf9al
6.	Pre-Future	Pre-Future
7.	Post-Future	Post-Future
8.	Duration in the Future ¹¹	Duration in the Future
9.		An Activity Continuing up to Simultaneous Present
10.		Past Time (after some Negative Particles)

¹¹This function is not represented in the inventory of functions of writes on pp. 313 - 315. Yet it may be found in such common sentences as:
He works all day tomorrow.

TABLE 109A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : wrote	<u>Form</u> : I. fa9al II. kāna yaf9al
(B) <u>Examples</u> I. He <u>arrived</u> yesterday. II. He <u>went</u> everyday.	<u>Examples</u> I. /huwa <u>waṣal</u> bilʔams/ II. /huwa <u>kāna yadhhab</u> kulla yawm/
(C) <u>Analysis</u> I. S → NP + VP → NP + in the past + V + Advt Taf → NP + V + in the past + Advt → he + arrive + D ₁ + yesterday → he arrived yesterday II.	<u>Analysis</u> I. S → NP + VP → NP + bilmāḍi + root + Advt Taf → NP + root + bilmāḍi + Advt → huwa + WSL + D ₁ + bilʔams → huwa waṣal bilʔams II. S → NP + VP → NP + bilmāḍi + lā sābiqan + root + Advt


contd...

Table 109A contd.

ENGLISH	ARABIC
	<p>Tcar → NP + bilmāḍi + KWN + lā-sābiqan + root + Advt</p> <p>Taf → NP + KWN + bilmāḍi + root + lā sābiqan + Advt</p> <p>→ NP + KWN + D₁ + DHHB + P₂ + Advt</p> <p>→ huwa kāna yadhhab kulla yawm</p>
<p>(D) <u>Formal Features</u></p> <p>I.1. past-tense marker</p> <p>II.1. past-tense marker</p> <p>2. no aspect marker</p> <p>3. no tense carrier</p>	<p><u>Formal Features</u></p> <p>I.1. past-tense marker</p> <p>II.1. past-tense marker</p> <p>2. presence of non- earlier aspect marker</p> <p>3. presence of tense carrier</p>

TABLE 109B

FUNCTIONAL COMPARISON

ENGLISH		ARABIC	
wrote		fa9al	kāna yaf9al
1.	<u>To indicate</u> Specific Past	Specific Past	
2.	General Past	Unspecific Past	
3.	Frequency in the Past		Frequency in the Past
4.	Duration in the Past	Duration in the Past	Duration in the Past
5.	Post-past	Post-past	
6.	Pre-past	Pre-past	Duration at Pre- past

contd...

Table 109B contd.

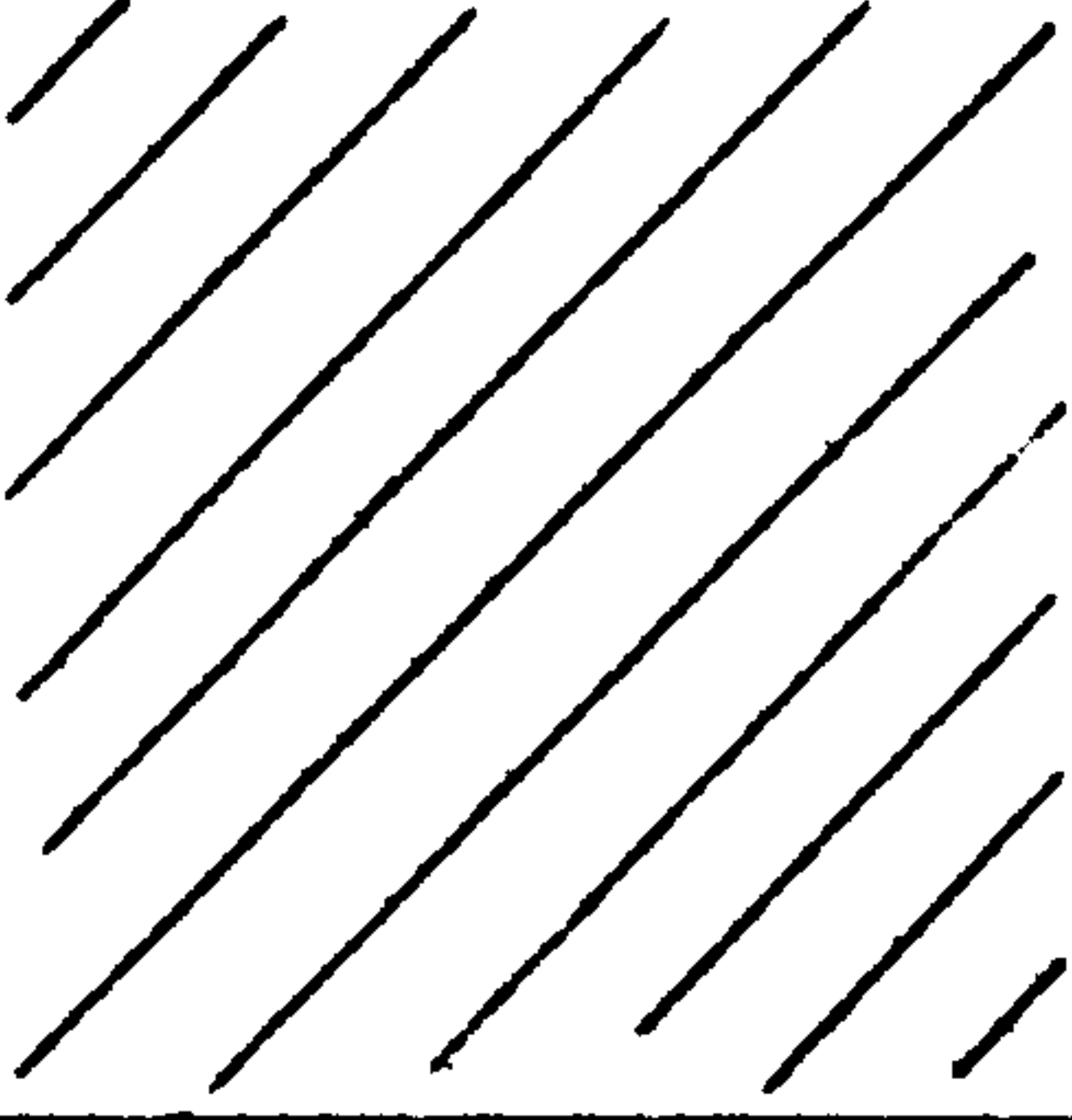
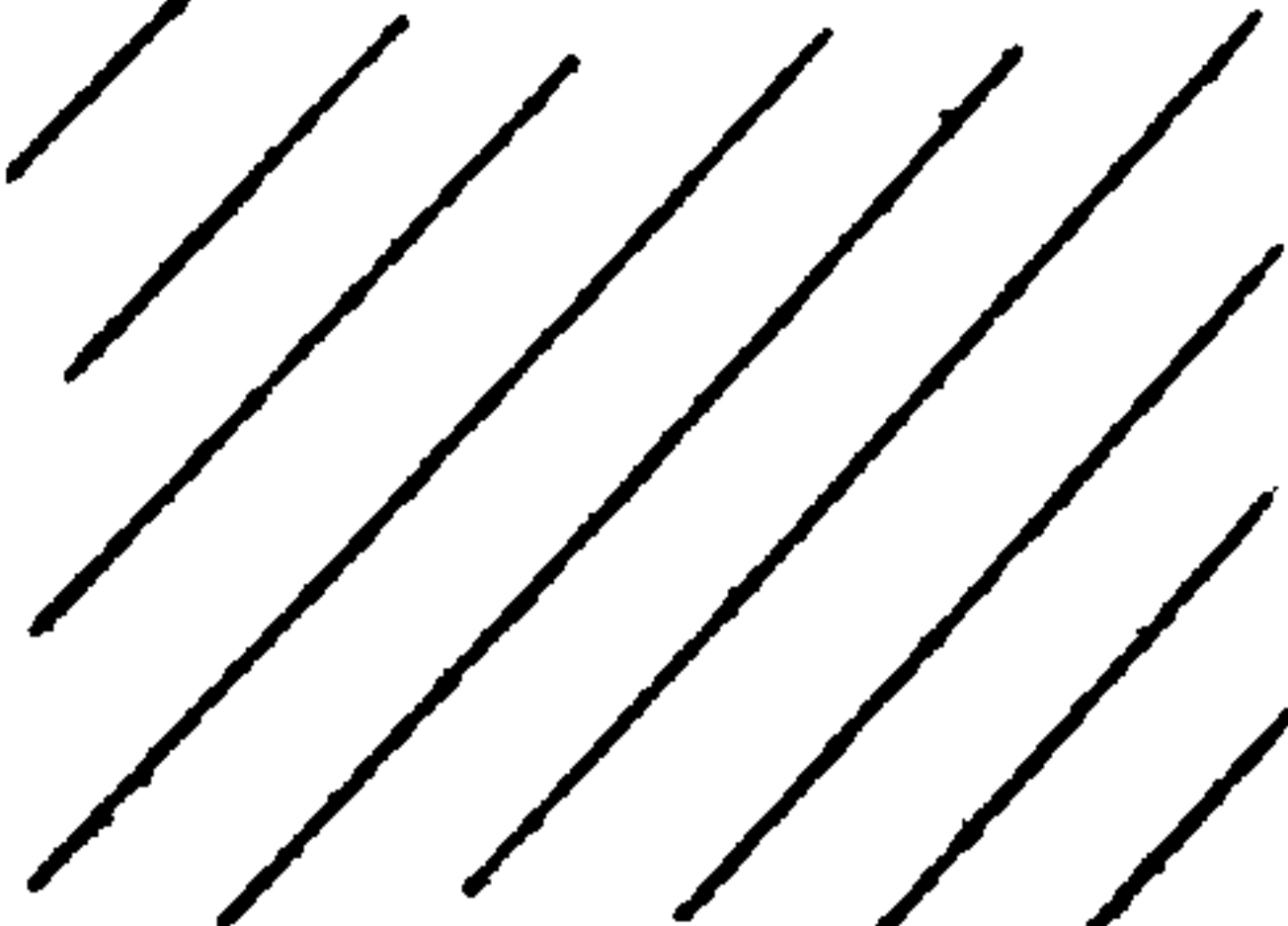
ENGLISH		ARABIC	
wrote		fa9al	kāna yaf9al
7.	Tentative Future (with <u>if</u>)	A Future Time (after <u>ʔidhā</u> 'if')	
8.		Past Activity Continuing up to Simultaneous Present	
9.		Hypothetical Past (with <u>law</u> 'if')	

TABLE 110A

FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : has written	<u>Form</u> : I. yakūnu fa9al II. fa9al III. kāna yaf9al
(B) <u>Examples</u>	<u>Examples</u>

contd...

Table 110A contd.

ENGLISH	ARABIC
I. By nine every morning, I usually <u>have gone</u> to the University. ¹²	I. /fi ttāsi9a kulla ṣabāḥ ?ana ?akūnu dhahabtu ?ila jjāmi9a 9ādatan/ ¹²
II. I <u>have seen</u> this film before.	II. /?ana ra?aytu hādha lfilim min qablu/
III. I <u>have gone</u> regularly.	III. /?ana kuntu ?adhhab bintizām/
(C) <u>Analysis</u>	<u>Analysis</u>
I.S → NP + VP → NP + at present + earlier + V + Advt	I.S → NP + VP → NP + fi lhādir + sābiqan + root + Advt
Tcar → NP + at present + HAVE + earlier + V + Advt	Tcar → NP + fi lhādir + KWN + sābiqan + root + Advt
Taf → NP + HAVE + at present + V + earlier + Advt → NP + HAVE + Ø ₁ + go + D ₂ + Advt	Taf → NP + KWN + fi lhādir + root + sābiqan + Advt → NP + KWN + P ₁ + DHHB + D ₂ + Advt

contd...

¹² Notice that some formal features of these sentences are not accounted for in the transformational analysis here since these features are irrelevant to our purposes in this analysis.

Table 110A contd.

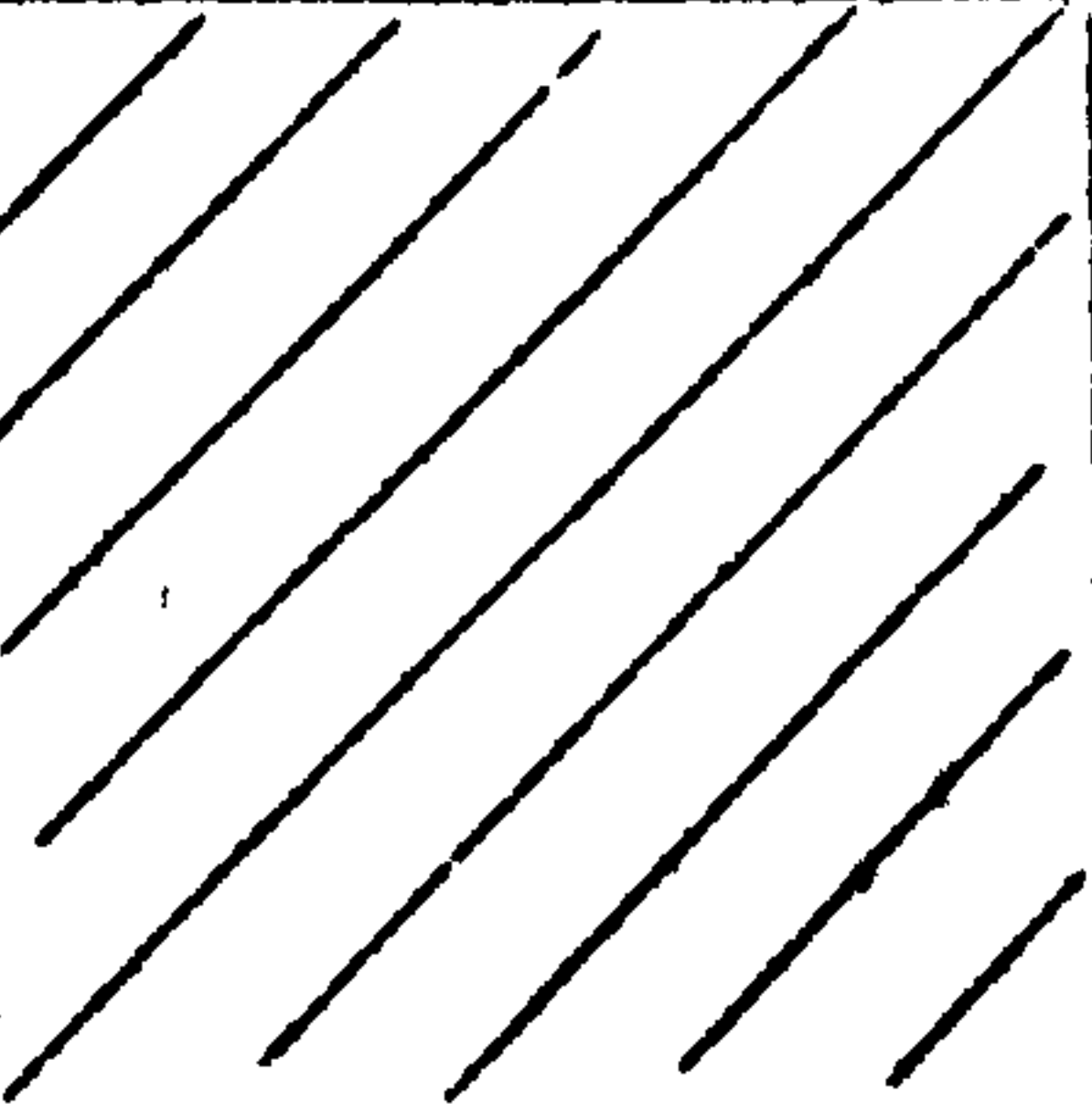
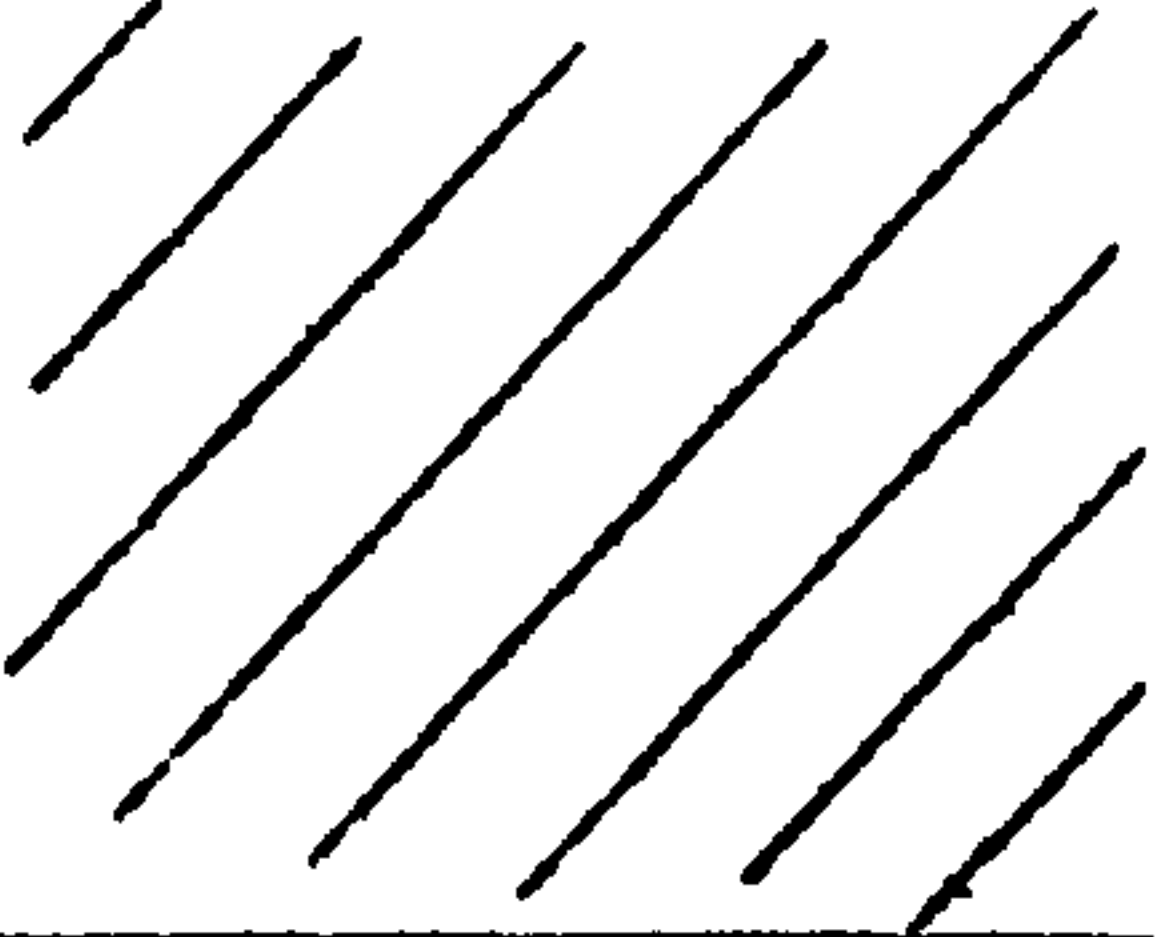
ENGLISH	ARABIC
<p>→ I have gone by nine o'clock every morning</p> <p>II.</p>	<p>→ ?ana ?akūnu dhahabtu fi ttāsi9a kulla ṣabāḥ</p> <p>II.S → NP + VP</p> <p>→ NP₁ + bilmāḍi + root + NP₂ + Advt</p> <p>Taf → NP₁ + root + bilmāḍi + NP₂ + Advt</p> <p>→ NP₁ + R?Y + D₁ + NP₂ + Advt</p> <p>→ ?ana ra?aytu hādha lfilim min qablu</p>
<p>III.</p>	<p>III.S → NP + VP</p> <p>→ NP + bilmāḍi + lā sābiqan + root + Advt</p> <p>Tcar → NP + bilmāḍi + KWN + lā sābiqan + root + Advt</p> <p>Taf → NP + KWN + bilmāḍi + root + lā sābiqan + Advt</p> <p>→ NP + KWN + D₁ + DHHB + P₂ + Advt</p>

contd...

Table 110A contd.

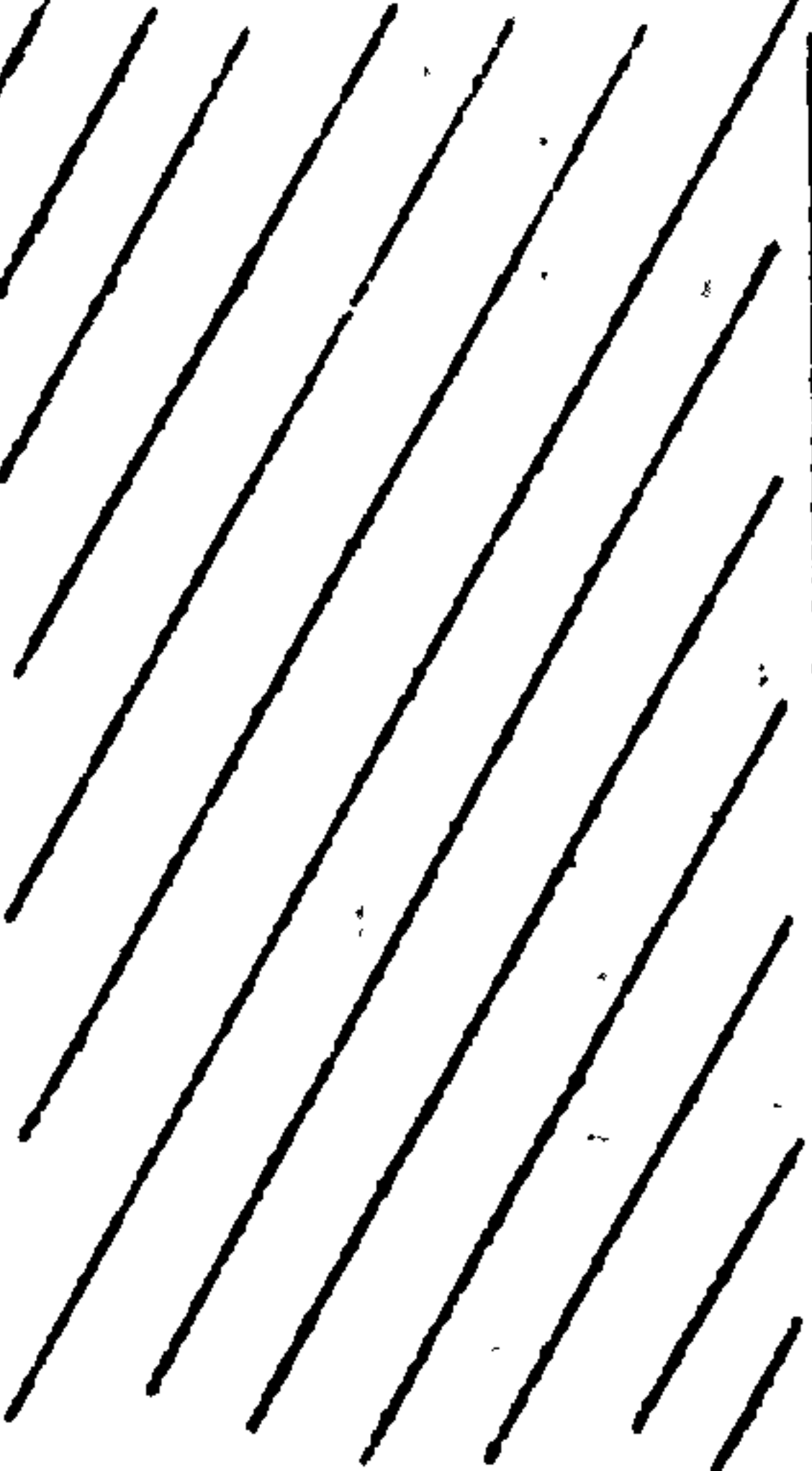

ENGLISH	ARABIC
	→ ?ana kuntu ?adhab bintizām
(D) <u>Formal Features</u>	<u>Formal Features</u>
I.1. Non-past tense- marker	I.1. Non-past tense- marker
2. Earlier-aspect marker	2. Earlier-aspect marker
3. Presence of tense- carrier	3. Presence of tense- carrier
II.1. Non-past tense- marker	II.1. P a s t tense- marker
2. Earlier-aspect marker	2. N o a s p e c t marker
3. Presence of tense- carrier	3. Absence of tense- carrier
III.1. Non-past tense- marker	III.1. Past-tense marker
2. Earlier-aspect marker	2. Non-earlier aspect marker
3. Presence of tense- carrier	3. Presence of tense- carrier

TABLE 110B
FUNCTIONAL COMPARISON

ENGLISH		ARABIC		
has written		yakūnu fa9al	fa9al	kāna fa9al
	<u>To indicate</u>			
1.	Unspecific Earlier Present	Tentative Past	Unspecific Past	
2.	Unspecific Recent Earlier Present	Tentative Recent Past	Recent Past	
3.	Frequency at Earlier Present			Frequency in the Past
4.	Unspecific Post-past		Post-past	
5.	Unspecific Pre- Future (with temporal con- junctions)	Tentative Pre-past		

contd...

Table 110B contd.

ENGLISH		ARABIC		
has written		yakūnu fa9al	fa9al	kāna fa9al
6.	Simultaneous Perceivable Activity		Past Activity Continuing up to Simultaneous Present	
7.	Habitual Action <u>Earlier</u> than a Point at Non-past ¹³	Habitual Action <u>Earlier</u> than an Unspecified Point		
8.		(Tentative) Pre-past		

¹³This function is not represented in the data analyzed in Chapter Six of Part Two. It may be found in sentences such as number I on page 787, however.

TABLE 111.A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : had written	<u>Form</u> : kāna fa9al
(B) <u>Example</u>	<u>Example</u>
She <u>had left</u> before then.	/hiya <u>kānat ghādarat</u> qabla dhālika lwaqti/
(C) <u>Analysis</u>	<u>Analysis</u>
S → NP + VP	S → NP + VP
→ NP + in the past + earlier + V + Adv _t	→ NP + bilmādi + sābiqan + root + Adv _t
Tcar → NP + in the past + HAVE + earlier + V + Adv _t	Tcar → NP + bilmādi + KWN + sābiqan + root + Adv _t
Taf → NP + HAVE + in the past + V + earlier + Adv _t	Taf → NP + KWN + bilmādi + root + sābiqan + Adv _t
→ NP + HAVE + D ₁ + leave + D ₂ + Adv _t	→ NP + KWN + D ₁ + GHDR + D ₂ + Adv _t
→ she had left before then	— hiya kānat ghādarat qabla dhālika lwaqti
(D) <u>Formal Features</u>	<u>Formal Features</u>
1. Past-tense marker	1. Past-tense marker
2. Earlier-aspect marker	2. Earlier-aspect marker
3. Presence of tense carrier	3. Presence of tense carrier

TABLE 111B

FUNCTIONAL COMPARISON

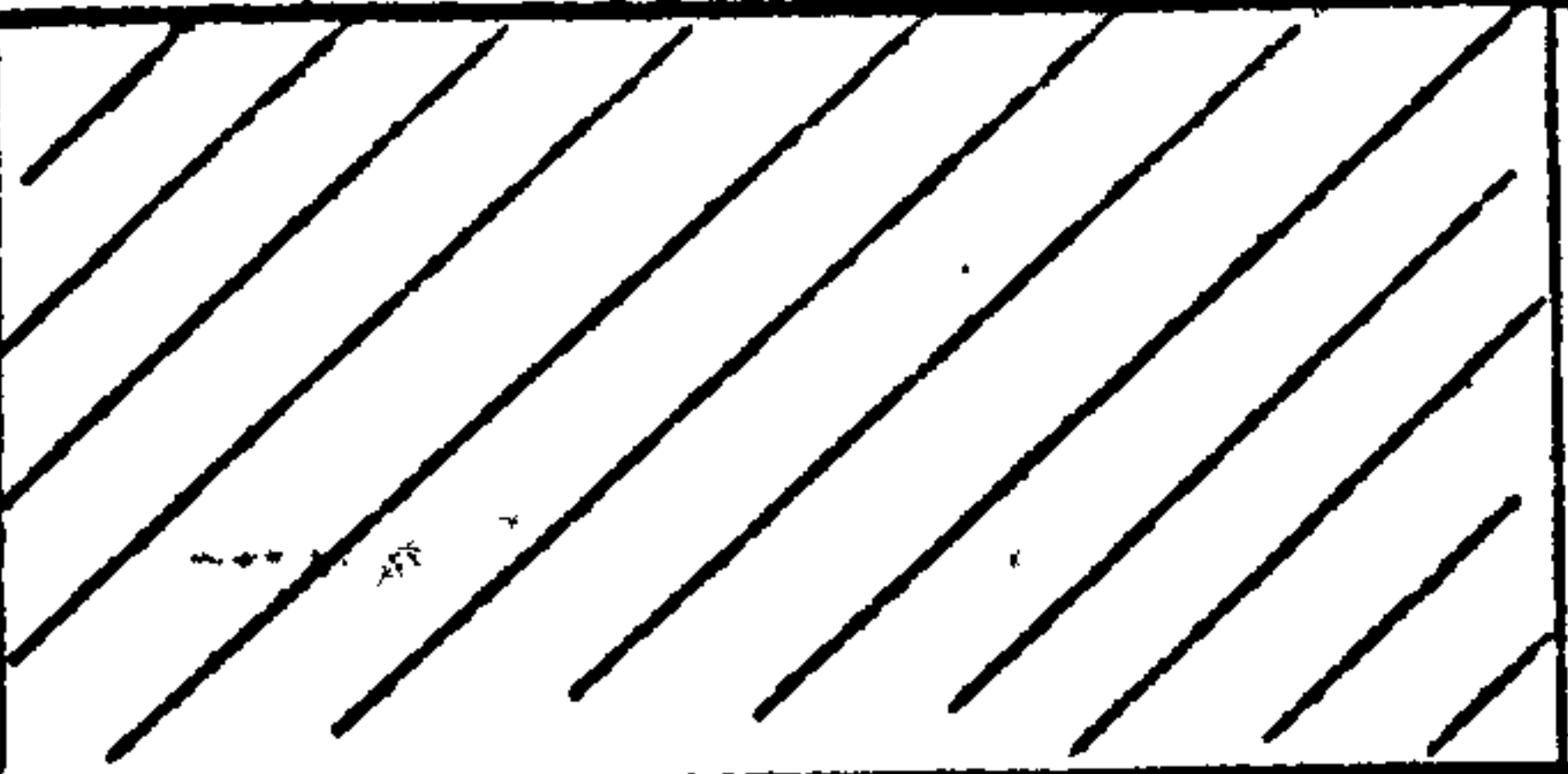
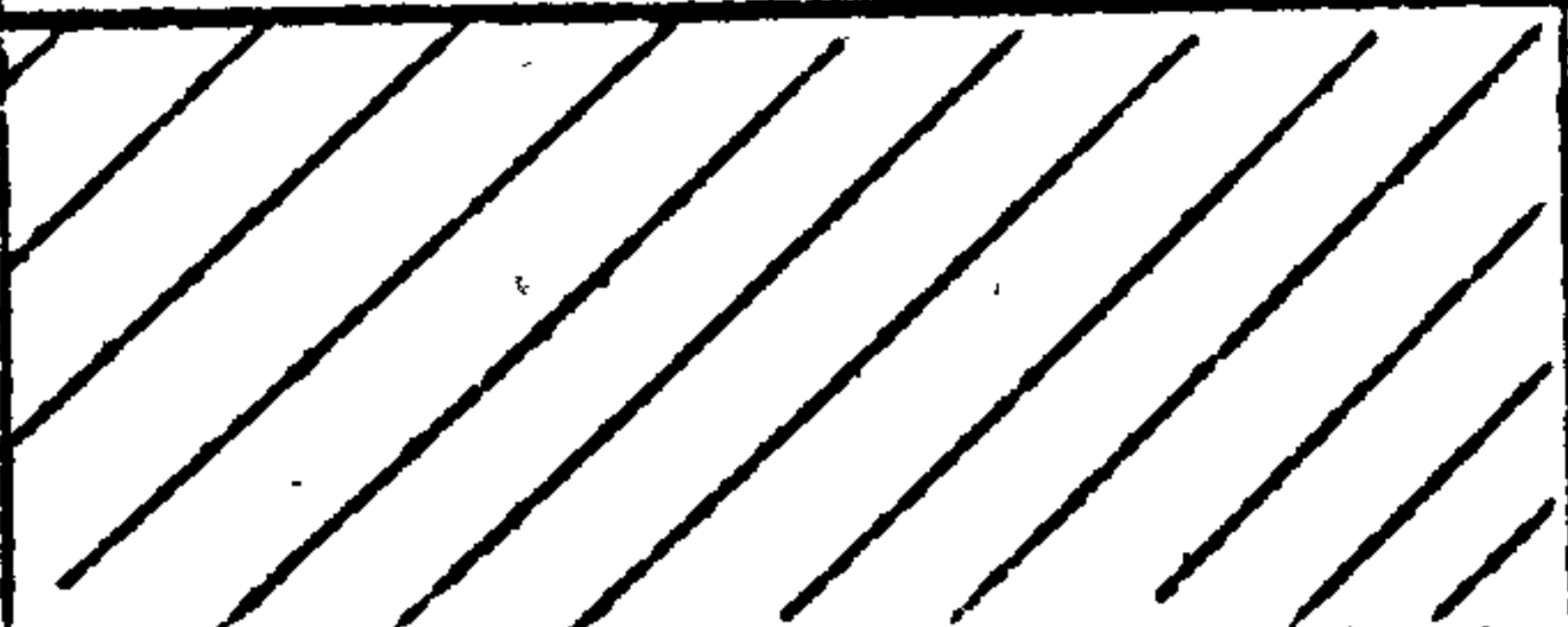
ENGLISH		ARABIC
had written		kāna fa9al
1.	<u>To indicate</u> Pre-past	Pre-past
2.	Hypothetical Past (with <u>if</u>)	Hypothetical Past (with <u>law</u> or <u>lawlā</u>)
3.		General Past
4.		Specific Past
5.		Duration in the Past
6.		Hypothetical Simultaneous Present (with <u>lawlā</u>)

TABLE 112A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : will write	<u>Form</u> : sayaf9al
(B) <u>Example</u> Layla <u>will travel</u> tomorrow.	<u>Example</u> /laylā <u>satusāfir</u> ghadan/
(C) <u>Analysis</u> S → NP + VP → NP + at present+ later + V + Advt Tcar → NP + at present+ WILL + non- earlier + V + Advt Taf → NP + WILL + at present + V + non-earlier + Advt → NP + WILL + \emptyset_1 + travel+ \emptyset_2 + Advt → Layla will travel tomorrow	<u>Analysis</u> S → NP + VP → NP + fi lhādir + lāhiqan + root + Advt Taf → NP + fi lhādir + root + lāhiqan+ Advt Taf → NP + root + fi lhādir + lāhiqan + Advt → NP + SFR + P ₁ + P ₂ + + Advt → laylā satusāfir ghadan
(D) <u>Formal Features</u> 1. Non-past tense marker 2. Later aspect marker 3. Presence of tense- carrier WILL	<u>Formal Features</u> 1. Non-past tense marker 2. Later aspect marker 3. No tense-carrier

TABLE 112B

FUNCTIONAL COMPARISON

ENGLISH		ARABIC
will write		sayaf9a1
1.	<u>To indicate</u> Specific Future	Future Time
2.	Unspecific Future	Future Time
3.	Post-future	Post-future
4.	Pre-future	Pre-future
5.	Duration in the Future ¹⁴	Duration in the Future
6.		Hypothetical Future (with lawlā)
7.		Intended Later-past (in Subordinate Clauses)

¹⁴This function is not represented in the English inventory of will write in Chapter Six of Part Two. Yet it is not uncommon in sentences such as: I will work on the car all day tomorrow.

TABLE 113A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : would write	<u>Form</u> : I. kāna sayaf9al II. sayaf9al III. kāna yaf9al
(B) <u>Examples</u> ¹⁵	<u>Examples</u> ¹⁵
I. He <u>would travel</u> the next morning.	I. /huwa <u>kāna sayusāfir</u> fi šabāhi lyawmi ttāli/
II. He said Layla <u>would travel</u> the next morning.	II. /qāla bi?anna laylā <u>satusāfir</u> fi šabāhi lyawmi ttāli/
III. He <u>would go</u> there every summer.	III. /huwa <u>kāna yadhhab</u> hunāk kulla sayf/
(C) <u>Analysis</u>	<u>Analysis</u>
I. S → NP + VP → NP + in the past + later + V + Advt	I. S → NP + VP → NP + bilmādi + lāhiqan + root + Advt
Tcar → NP + in the past + WILL + non-earlier + V + Advt	Tcar → NP + bilmādi + KWN + lāhiqan + root + Advt

¹⁵ In all cases of complex and compound sentences hereafter, only the clause which contains the tenseme in question is analyzed since the other clause is irrelevant for the purposes of this analysis.

Table 113A contd.

ENGLISH	ARABIC
<p>Taf → NP + WILL + in the past + V + non-earlier + Adv_t</p> <p>→ NP + WILL + D₁ + travel/ + Adv_t</p> <p>→ he would travel the next morning</p> <p>II.</p>	<p>Taf → NP + KWN + bilmādi + root + lāhiqan + Adv_t</p> <p>→ huwa + KWN + D₁ + SFR + P₂ + Adv_t</p> <p>→ huwa kāna sayusāfir fi sabāhi lyawmi ttāli</p> <p>II. S → NP + VP</p> <p>NP + fi lhādir + lāhiqan + root + Adv_t</p> <p>Taf → NP + fi lhādir + root + lāhiqan + Adv_t</p> <p>Taf → NP + root + fi lhādir + lāhiqan + Adv_t</p> <p>→ NP + SFR + P₁ + P₂ + Adv_t</p> <p>→ ... laylā satusāfir fi sabāhi lyawmi ttāli</p>

contd...

Table 113A contd.

ENGLISH	ARABIC
III.	<p>III. $S \rightarrow NP + VP$</p> <p>$\rightarrow NP + \text{bilmādi} +$</p> <p>$\text{lā sābiqan} + \text{root}$</p> <p>$+ \text{Adv}t$</p> <p>$T_{car} \rightarrow NP + \text{bilmādi} +$</p> <p>$KWN + \text{lā sābiqan} +$</p> <p>$\text{root} + \text{Adv}t$</p> <p>$T_{af} \rightarrow NP + KWN + \text{bilmādi}$</p> <p>$+ \text{root} + \text{lā sābiqan}$</p> <p>$+ \text{Adv}t$</p> <p>$\rightarrow NP + KWN + D_1 +$</p> <p>$DHHB + P_2 + \text{Adv}t$</p> <p>$\rightarrow \text{huwa kāna yadhhab}$</p> <p>$\text{kulla sayf}$</p>
(D) <u>Formal Features</u>	<u>Formal Features</u>
I.1. Past-tense marker	I.1. Past-tense marker
2. Later-aspect marker	2. Later-aspect marker
3. Presence of tense-carrier	3. Presence of tense-carrier
II.1. Past-tense marker	II.1. Non-past tense marker
2. Later-aspect marker	2. Later-aspect marker
3. Presence of tense-carrier	3. Absence of tense-carrier
III.1. Past-tense marker	III.1. Past-tense marker
2. Later-aspect marker	2. Non-earlier aspect marker
3. Presence of tense-carrier	3. Presence of tense-carrier

TABLE 113B

FUNCTIONAL COMPARISON

ENGLISH		ARABIC		
would write		kāna sayaf9a1	sayaf9a1	kāna yaf9a1
1.	<u>To indicate</u> Intended Later-past	Intended Later-past	Intended Later-past (Subordi- nate Clauses)	
2.	Tentative Future Time		Future Time	
3.	Hypothetical Future	Hypothetical Future (with <u>lawlā</u>)	Hypothe- tical Fu- ture (with <u>lawlā</u>)	
4.	Past Habit			Frequency in the Past
5.		Hypothetical Post-past (with <u>lawlā</u>)		
6.		Tentative Past		

contd...

Table 113B contd.

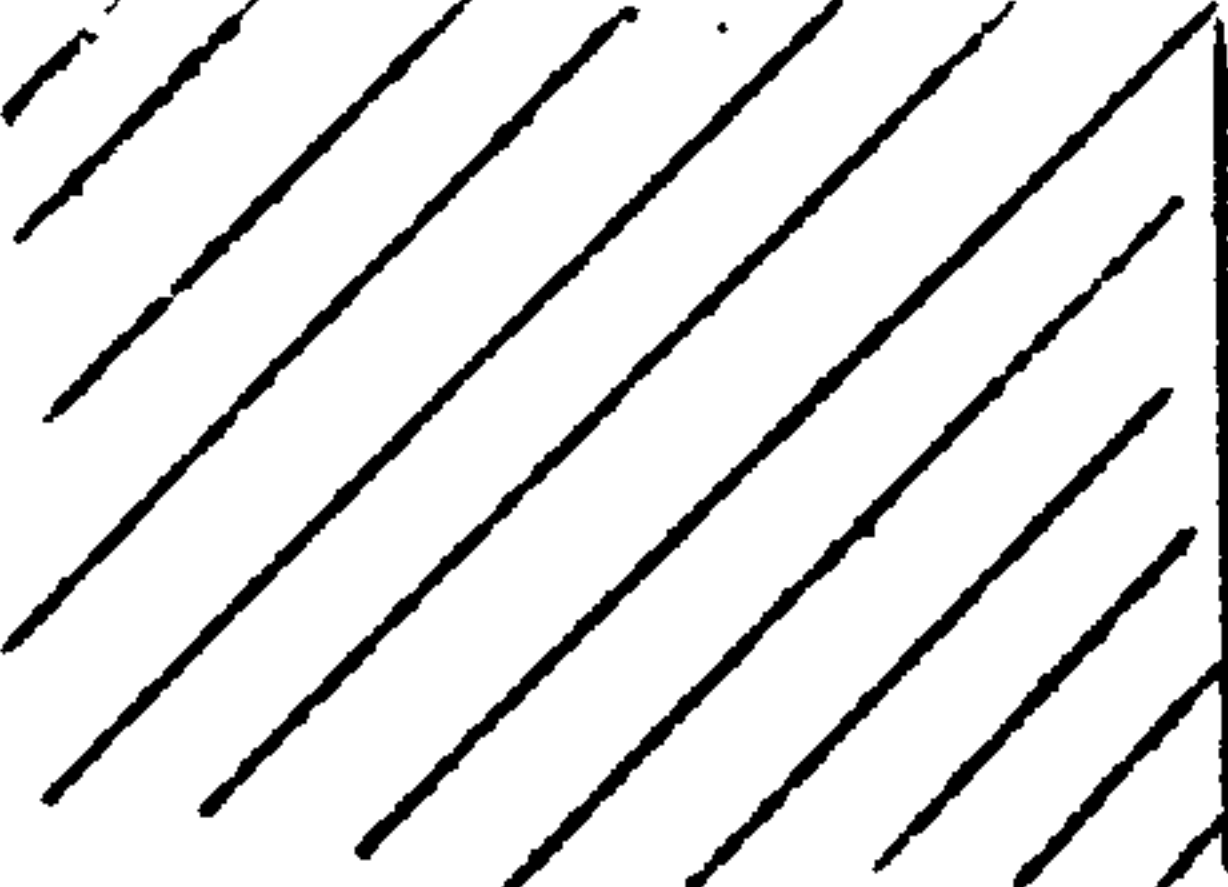
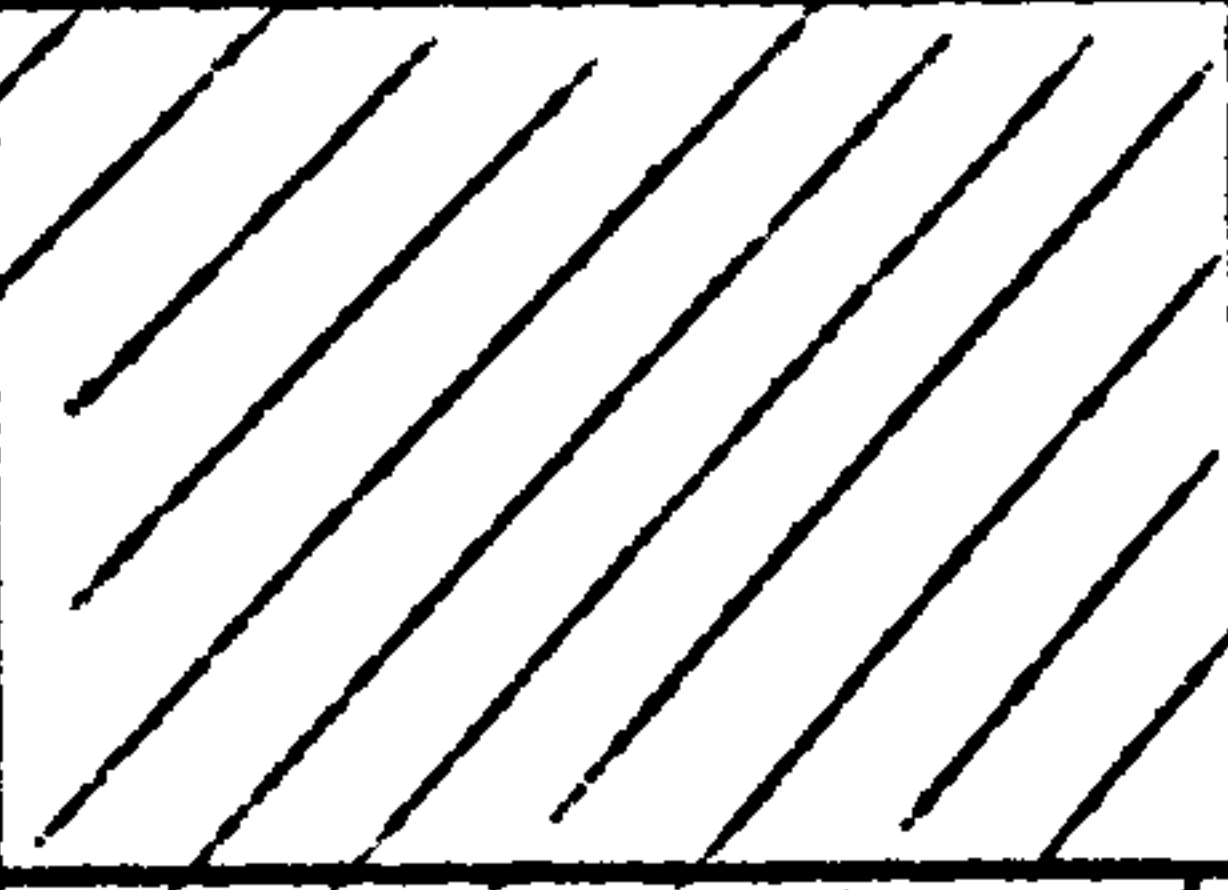
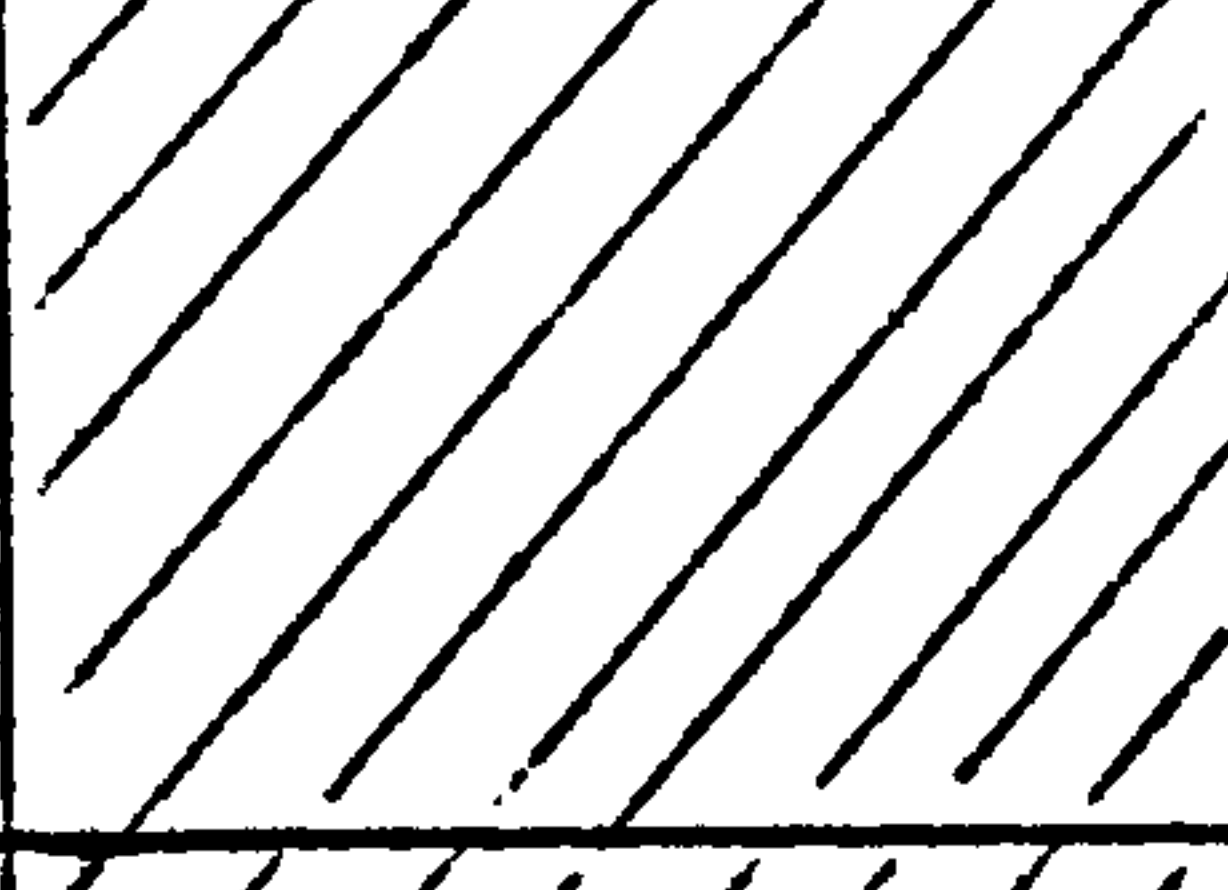
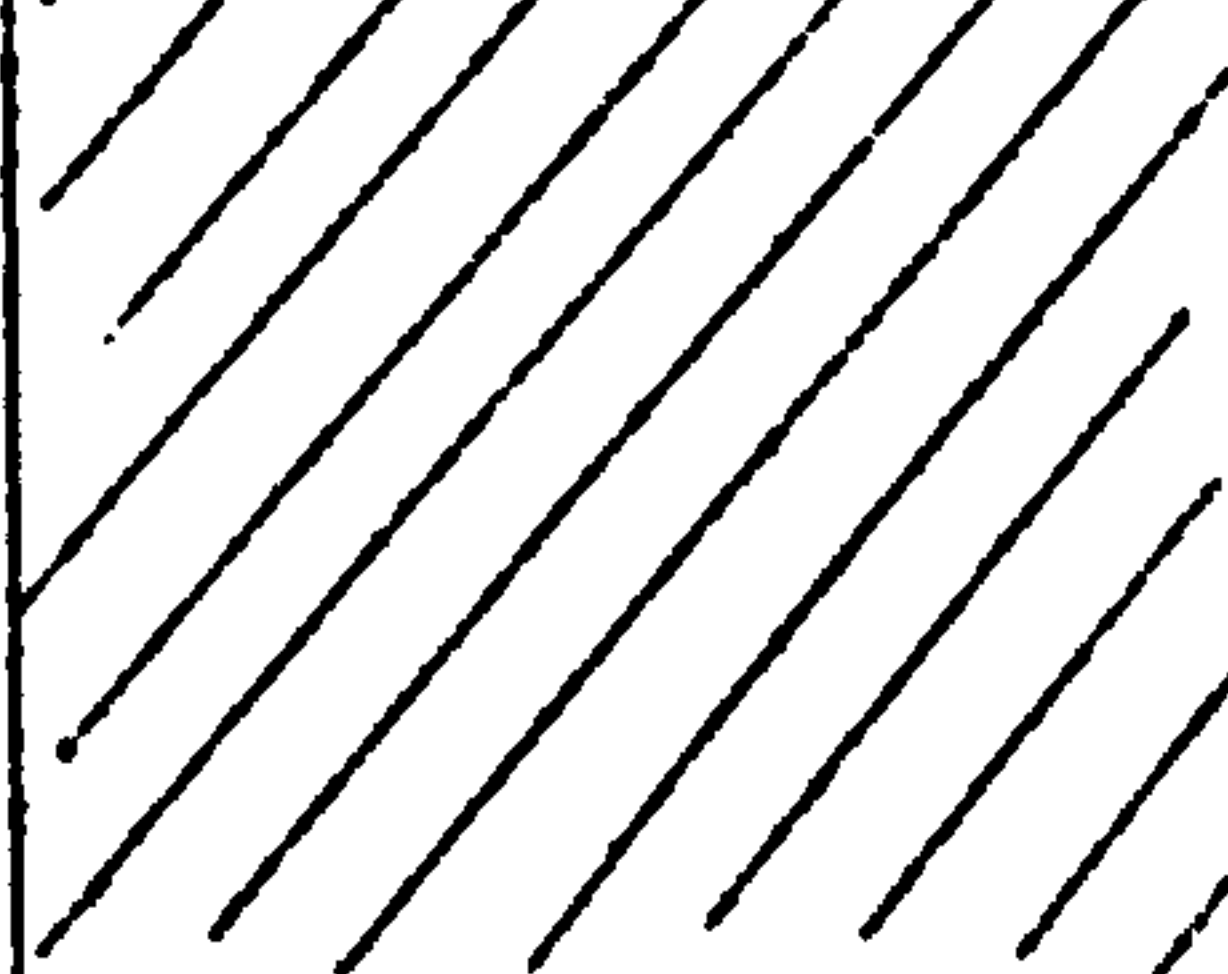
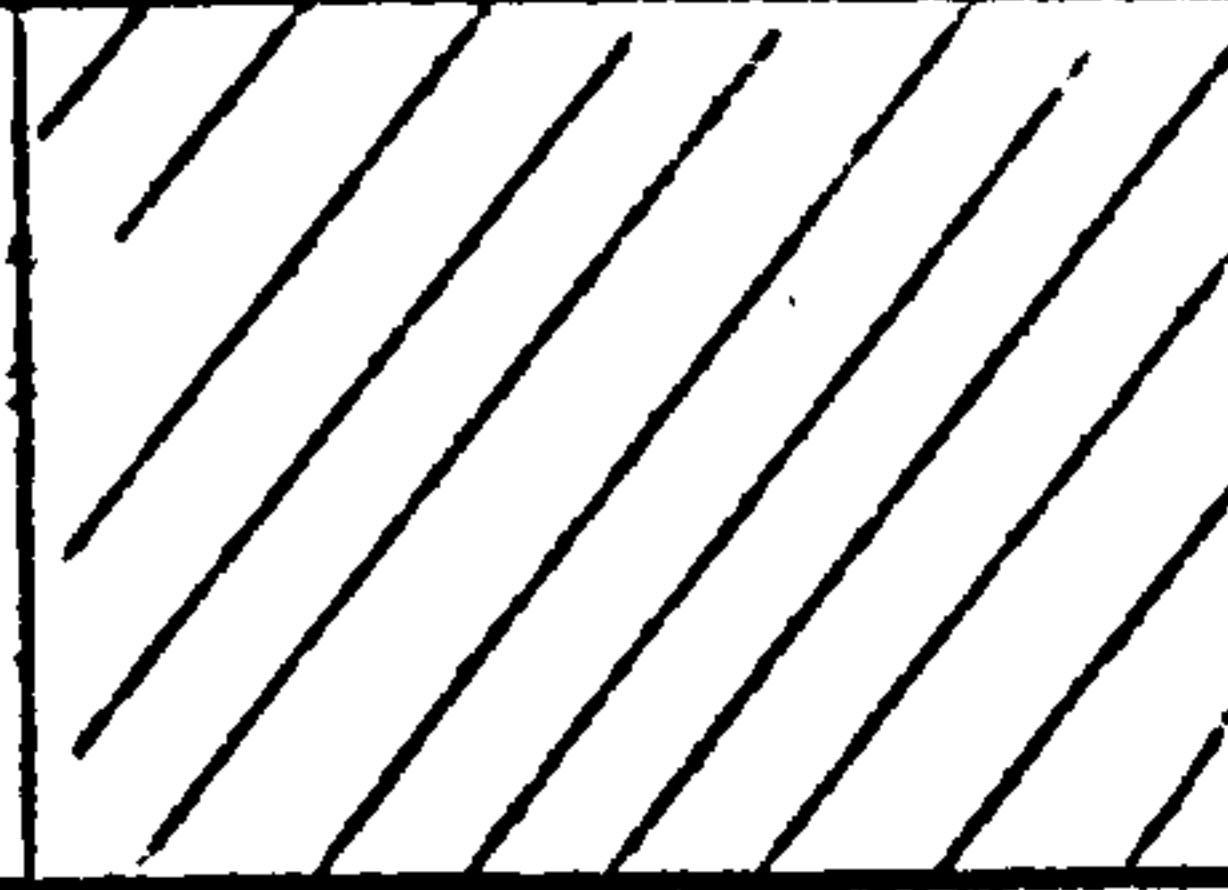
ENGLISH		ARABIC		
would write		kāna sayaf9al	sayaf9al	kāna yaf9al
7.		Hypothetical Past (with lawlā)		
8.		Hypothetical Pre-past		
9.		Hypothetical Pre-future		
10.		Hypothetical Simultaneous or Contemporaneous Present		
11.		Hypothetical Post-future		

TABLE 114A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : is writing	<u>Form</u> : I. yakūnu fā9il II. yakūnu yaf9al III. yaf9al
(B) <u>Examples</u>	<u>Examples</u>
I. He <u>is sleeping</u> when- ever I visit him.	I. /huwa <u>yakūnu nāʔim</u> kullamā ʔazūruhu/
II. She <u>is reading</u> when- ever we see her.	II. /hiya <u>takūnu taqraʔ</u> kullamā narāha/
III. He <u>is reading</u> now.	III. /huwa <u>yaqraʔ</u> lʔān/
(C) <u>Analysis</u>	<u>Analysis</u>
I. S → NP + VP.... → NP + at pres- ent + simulta- neously + V	I. S → NP + VP ... → NP + fi lhādir + ʔāniyyan + root
Tcar → NP + at pres- ent + BE + simultaneously + V	Tcar → NP + fi lhādir + KWN + ʔāniyyan + root
Taf → NP + BE + at present + V + simultaneously	Taf → NP + KWN + fi lhādir + root + ʔāniyyan

contd...

Table 11.4A contd.

ENGLISH	ARABIC
<p>→ NP + BE + \emptyset_1 + sleep + N</p> <p>→ he is sleeping</p> <p>...</p> <p>II.</p>	<p>→ NP + KWN + P_1 + NWM + $P_2\emptyset$</p> <p>→ huwa yakūnu nāʔim ...</p> <p>II. S → NP + VP ...</p> <p>→ NP + fi lhādir + lā sābiqan + root</p> <p>Tcar → NP + fi lhādir + KWN + lā sābiqan + root</p> <p>Taf → NP + KWN + fi lhādir + root + lā sābiqan</p> <p>→ NP + KWN + P_1 + QR? + P_2</p> <p>→ hiya takūnu taqraʔ</p> <p>III. S → NP + VP</p> <p>→ NP + fi lhādir + root + Advt</p> <p>Taf → NP + root + fi lhādir + Advt</p> <p>→ huwa + QR? + P_1 + Advt</p>

contd...

Table 114A contd.

ENGLISH	ARABIC
<p>(D)<u>Formal Features</u></p> <p>I.1. Non-past tense marker</p> <p>2. Simultaneous-aspect marker</p> <p>3. Presence of tense carrier</p> <p>II.1. Non-past tense marker</p> <p>2. Simultaneous-aspect marker</p> <p>3. Presence of tense carrier</p> <p>III.1. Non-past tense marker</p> <p>2. Simultaneous-aspect marker</p> <p>3. Presence of tense carrier</p>	<p>→ huwa yaqra? l?ān</p> <p><u>Formal Features</u></p> <p>I.1. Non-past tense marker</p> <p>2. Simultaneous-aspect marker</p> <p>3. Presence of tense carrier</p> <p>II.1. Non-past tense marker</p> <p>2. Non-earlier aspect marker</p> <p>3. Presence of tense carrier</p> <p>III.1. Non-past tense marker</p> <p>2. No aspect marker</p> <p>3. No tense carrier</p>

TABLE 114B

FUNCTIONAL COMPARISON

ENGLISH		ARABIC		
is writing		yakūnu fā9il	yakūnu yaf9al	yaf9al
1.	<u>To indicate</u> Simultaneous Present	Tentative Simultaneous Present	Tentative Simultaneous Present	Simultaneous Present
2.	Contemporaneous Present			Contemporaneous Present
3.	Current Habit	Tentative Habitual Action (Sim. with Non-past)	Tentative Habitual Action (Unspecified Time)	Current Habit
4.	Planned Future	Tentative Sim. with Future	Tentative Duration in Future	Future Time
5.	Action Continuous up to Future Point	Action Continuous upto Future Point ¹⁶	Tentative Duration in Future	

¹⁶This function is not represented in the data^{contd.} of yakūnu fā9il in the inventory of functions in Part Three. Yet it may be found in such sentences as: /huwa yakūn nā'im ?ilā ?an na9ūd/'He is sleeping until we come back.'

Table 114B contd.

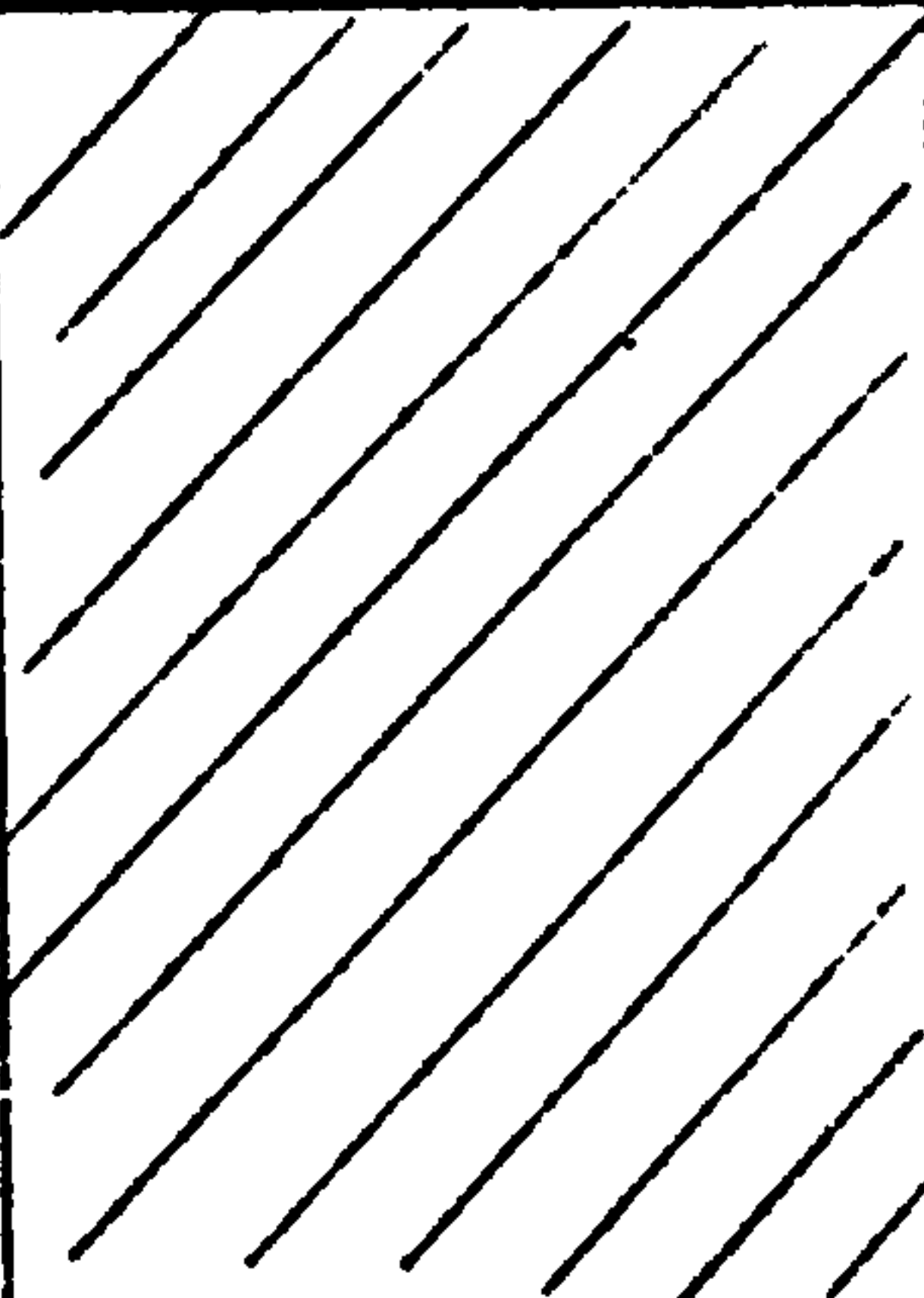
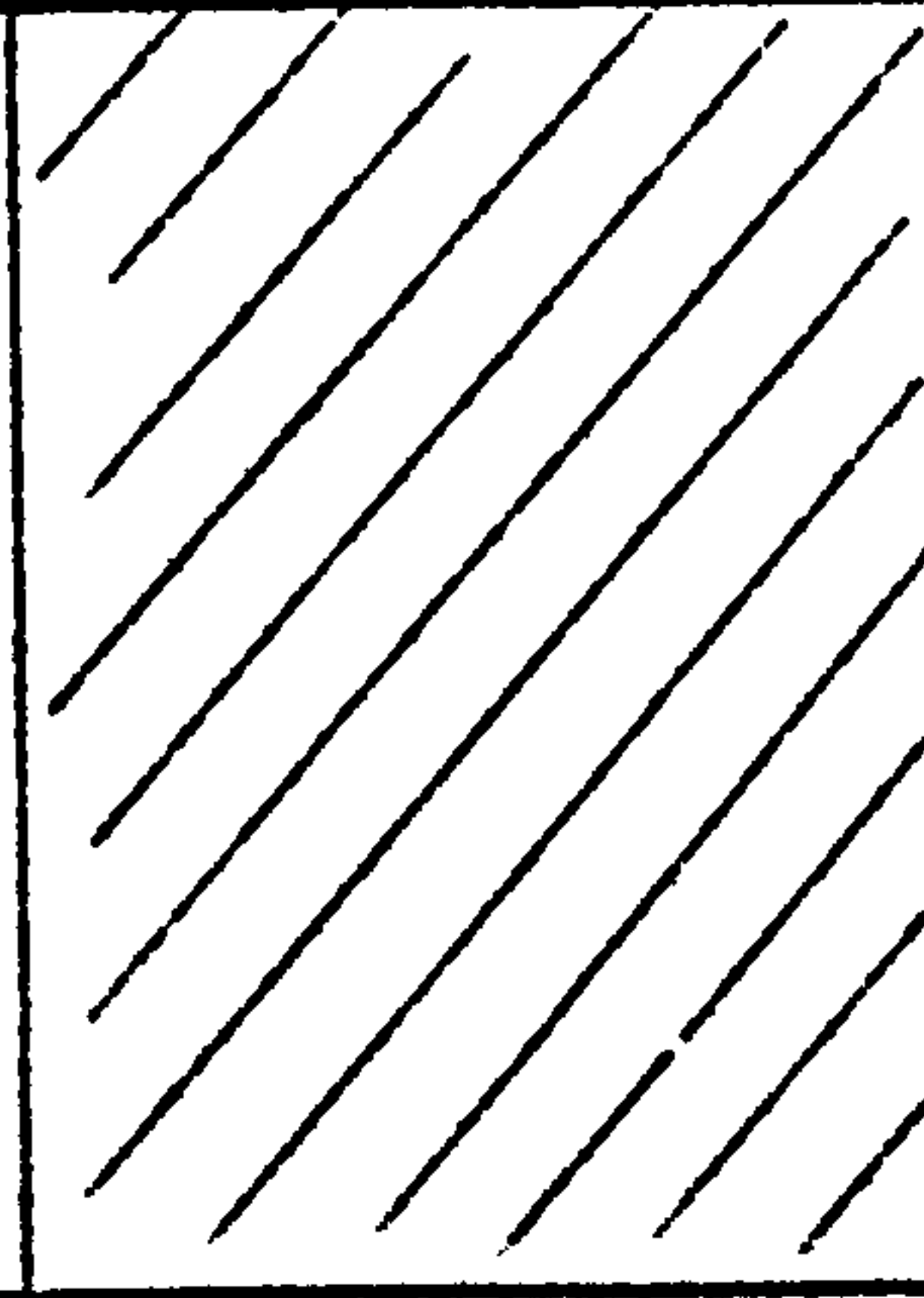
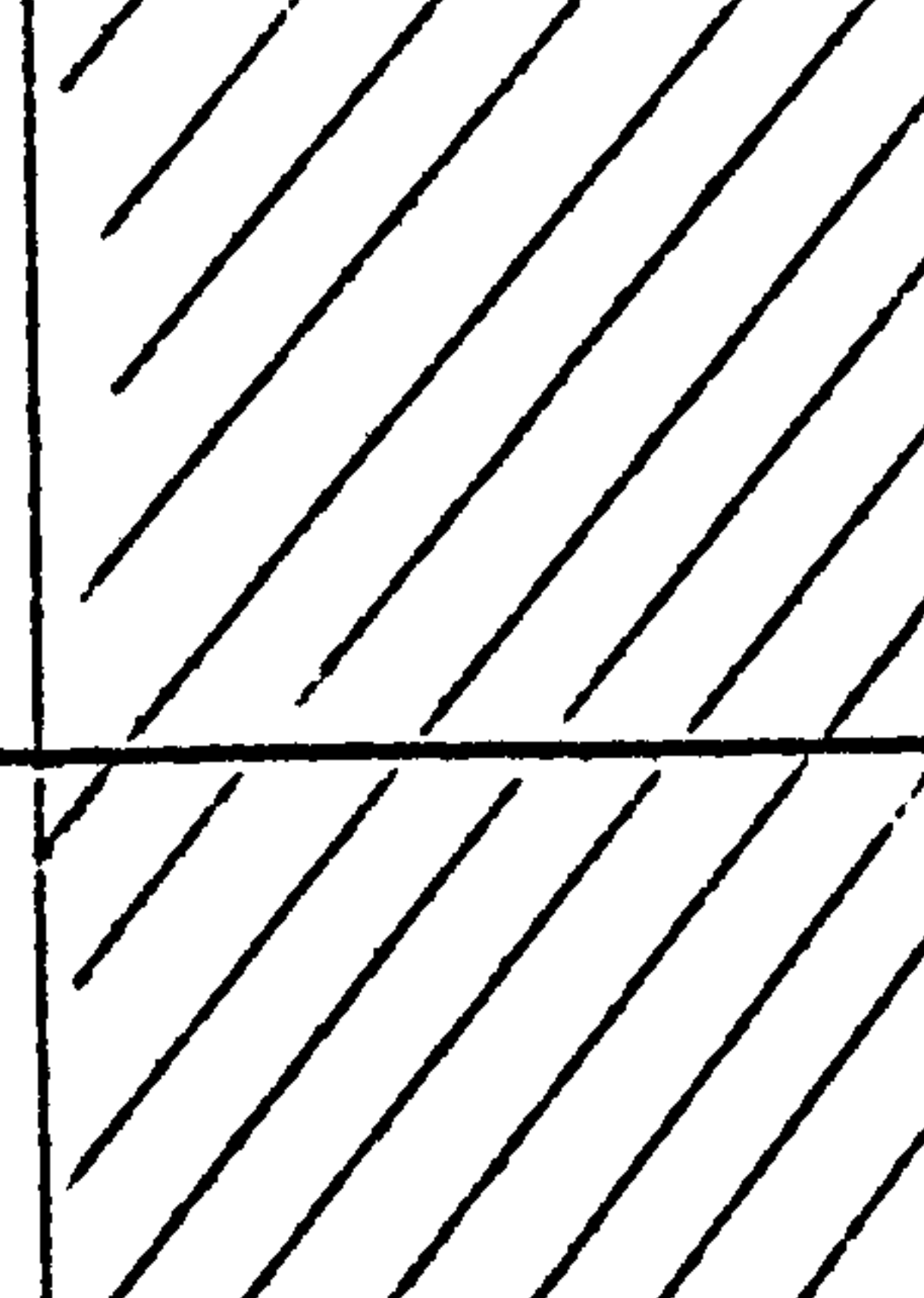
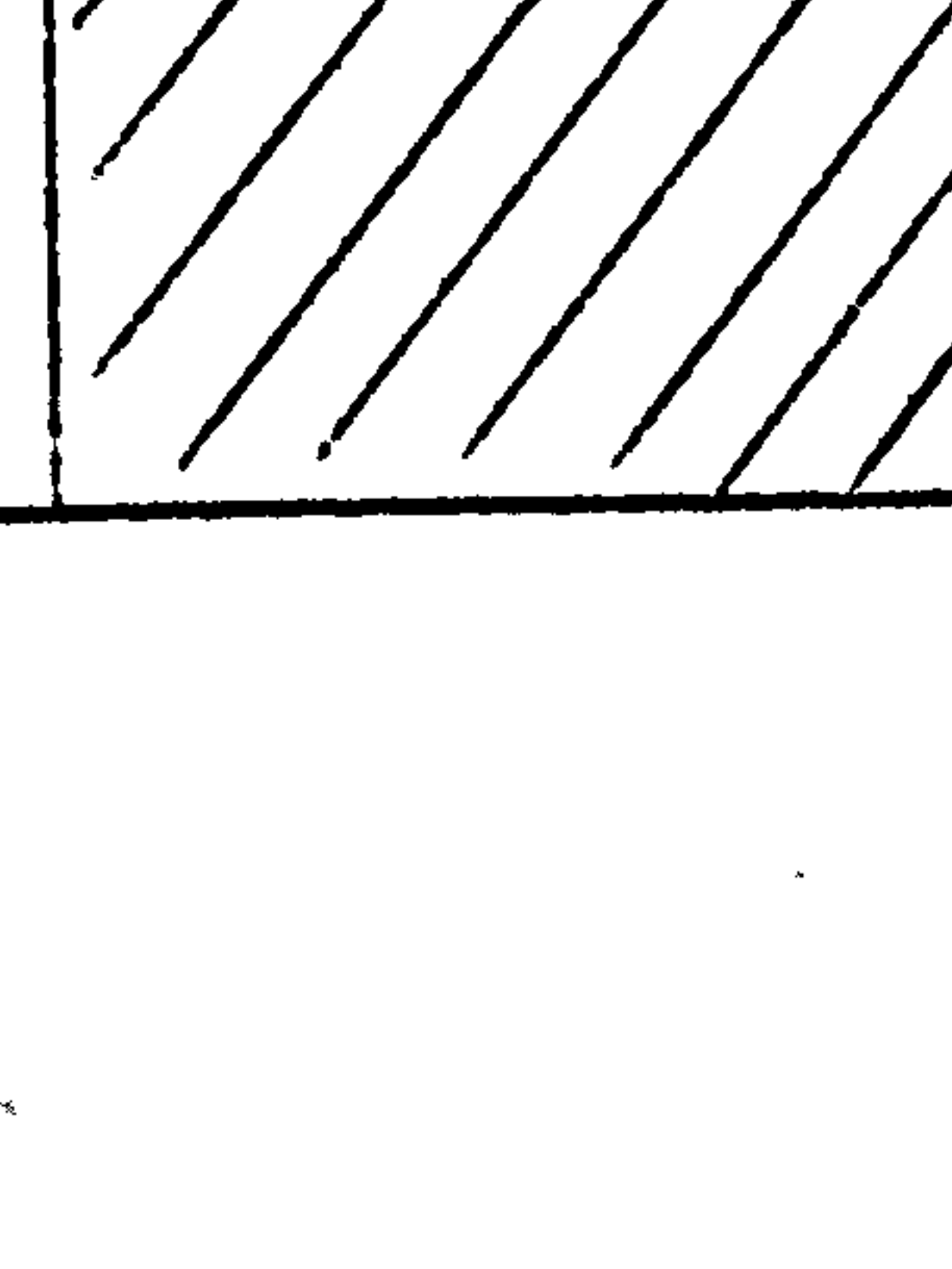
ENGLISH		ARABIC		
	is writing	yākunu fā9il	yakūnu yaf9al	yaf9al
6.		Tentative Habitual Ac- tion Sim. with Time <u>after</u> an Un- specified Point	Tentative Habitual Ac- tion <u>after</u> an Unspeci- fied Point	
7.		Tentative Habitual Ac- tion Sim. with Time <u>before</u> an Unspecified Point	Tentative Action Habitually <u>before</u> an Un- specified Point	
8.		Tentative Action Sim. with Post- future	Tentative Duration at Post-future	
9.		Action Simultaneous with Pre- future	Tentative Duration at Pre-future	

TABLE 115A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : was writing	<u>Form</u> : I. kāna fā9il II. kāna yaf9al
(B) <u>Examples</u>	<u>Examples</u>
I. He <u>was sleeping</u> all last night.	I. /huwa <u>kāna nāʔim</u> tuwāla llayla lmādiya/
II. He <u>was working</u> all last night.	II. /huwa <u>kāna ya9mal</u> tuwāla llayla lmādiya/
(C) <u>Analysis</u>	<u>Analysis</u>
I. S → NP + VP → NP + in the past + Sim. + V + Advt	I. S → NP + VP → NP + bilmādi + ʔāniyyan + root + Advt
Tcar → NP + in the past + BE + Sim. + V + Advt	Tcar → NP + bilmādi + KWN + ʔāniyyan + root + Advt
Taf → NP + BE + in the past + V + Sim. + Advt → NP + BE + D ₁ + sleep + N + Advt → he was sleep- ing all last night	Taf → NP + KWN + bilmādi + root + ʔāniyyan + Advt → NP + KWN + D ₁ + NWM + P ₂ ∅ + Advt → huwa kāna nāʔim tuwāla llayla lmādiya

contd...

Table 115A contd.

ENGLISH	ARABIC
<p>II.</p>	<p>II.S → NP + VP → NP + bilmādi + lā sābiqan + root + Advt</p> <p>Tcar → NP + bilmādi + KWN + lā sābiqan + root + Advt</p> <p>Taf → NP + KWN + bilmādi + root + lā sābiqan + Advt</p> <p>→ NP + KWN + D₁ + 9ML + P₂ + Advt</p> <p>→ huwa kāna ya9mal tuwāla llayla lmādiya</p>
<p>(D) <u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Simultaneous- aspect marker</p> <p>3. Presence of tense carrier</p> <p>II.1. Past-tense marker</p> <p>2. Simultaneous- aspect marker</p> <p>3. Presence of tense carrier</p>	<p><u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Simultaneous-aspect marker</p> <p>3. Presence of tense carrier</p> <p>II.1. Past-tense marker</p> <p>2. Non-earlier aspect marker</p> <p>3. Presence of tense carrier</p>

TABLE 115B
FUNCTIONAL COMPARISON

ENGLISH		ARABIC	
was writing		kāna fā9il	kāna yaf9al
1.	<u>To indicate</u> Action Simultaneous with Past Point/Action/State	Simultaneity in the Past	
2.	Duration Simultaneous with the Past		Duration in the Past
3.	Duration Simultaneous with Pre-past	Simultaneous with Pre-past	Duration at Pre-past
4.	Duration Simultaneous with Post-past	Simultaneous with Post-past	Duration at Post-past ¹⁷
5.			Frequency in the Past

contd...

¹⁷This function is not represented in the Arabic data. Yet it is commonly found in such sentences as:
/kāna yaqra? kitābahu ba9da 9awdatihi mina lmadrasa/
'He was read(ing) his book after his return from school.'

Table 115B contd.

ENGLISH		ARABIC	
was writing		kāna fā9il	kāna yaf9al
6.		Hypothetical Action Simul- taneous with Past (with <u>law</u>)	Hypothetical Duration at Past (with <u>law</u>)
7.		Hypothetical Simultaneous Present (with <u>lawlā</u>)	Hypothetical Duration at Simultaneous Present (with <u>lawlā</u>)
8.		Hypothetical Action at Post-past (with <u>lawlā</u>) (in Subordinate Clauses)	

TABLE 116A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : has been writing	<u>Form</u> : I. yakūnu fa9al II. yaf9al
(B) <u>Examples</u>	<u>Examples</u>
I. When Layla <u>has</u> <u>been working</u> for three hours to- morrow, she will stop.	I. /9indamā <u>takūnu</u> laylā <u>9amilat</u> lithalāthi sā9āt ghadan, satatawaqqaf/
II. He <u>has been read-</u> <u>ing</u> that book for more than a week.	II. /huwa <u>yagra?</u> dhālika lkitāb mundhu ʔakthar min ʔusbū9/
(C) <u>Analysis</u>	<u>Analysis</u>
I.S → ... NP + VP ... → NP + at pres- ent + earlier + sim. + V + Adv t	I.S → ... NP + VP ... → NP + fi lhādir + sābiqan + root + Adv t
Tcar → NP + at pres- ent + HAVE + earlier + BE + sim. + V + Adv t	Tcar → NP + fi lhādir + KWN + sābiqan + root + Adv t

contd...

Table 116A contd.

ENGLISH	ARABIC
<p>Taf → NP + HAVE + at present + BE + earlier + V + sim. + Advt</p> <p>→ NP + HAVE + Ø₁ + BE + D₂ + work + N + Advt</p> <p>→ ... Layla has been working for three hours tomorrow...</p>	<p>Taf → NP + KWN + fi lhādir + root + sābiqan + Advt</p> <p>T- → KWN + fi lhādir + invert NP + root + sābiqan + Advt</p> <p>→ KWN + P₁ + NP + 9ML + D₂ + Advt</p> <p>→ ... takūnu laylā 9amilat lithalāthi sā9āt ghaḍan...</p>
<p>II.</p>	<p>II.S → NP + VP</p> <p>→ NP₁ + fi lhādir + root + NP₂ + Advt</p> <p>Taf → NP₁ + root + fi lhādir + NP₂ + Advt</p> <p>→ NP₁ + QR? + P₁ + NP₂ + Advt</p> <p>→ huwa yaqra? dhālika lkitāb mundhu ?akthar min ?usbū9</p>

contd...

Table 116A contd.

ENGLISH	ARABIC
<p>(D) <u>Formal Features</u></p> <p>I.1. Non-past tense marker</p> <p>2. Earlier-aspect marker</p> <p>3. Presence of simultaneous-aspect marker</p> <p>4. Presence of tense carrier HAVE</p> <p>5. Presence of aspect carrier BE</p> <p>II.1. Non-past tense marker</p> <p>2.. Presence of earlier-aspect marker</p> <p>3. Presence of simultaneous-aspect marker</p> <p>4. Presence of tense carrier HAVE</p> <p>5. Presence of aspect carrier BE</p>	<p><u>Formal Features</u></p> <p>I.1. Non-past tense marker</p> <p>2. Earlier-aspect marker</p> <p>3. Absence of simultaneous-aspect marker</p> <p>4. Presence of tense carrier KWN</p> <p>5. Absence of aspect carrier</p> <p>II.1. Non-past tense marker</p> <p>2.. Absence of earlier-aspect marker</p> <p>3. Absence of simultaneous-aspect marker</p> <p>4. Absence of tense carrier</p> <p>5. Absence of aspect carrier</p>

TABLE 116B

FUNCTIONAL COMPARISON

ENGLISH		ARABIC	
has been writing		yakūnu fa9al	yaf9al
1.	<u>To indicate</u> past Activity Continuing up to Simultaneous Present		Past Activity Continuing up to Simultaneous Present
2.	Activity Continuing at Pre-future	Tentative Pre-future	

TABLE 117A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : had been writing	<u>Form</u> : I. k̄ana fā9il II. k̄ana yaf9al
(B) <u>Examples</u>	<u>Examples</u>
I. He <u>had been sleep-</u> <u>ing</u> when I arrived.	I. /huwa <u>k̄ana nāʔim</u> 9indamā waṣaltu/
II. They <u>had been read-</u> <u>ing</u> when the bell rang.	II. /hum <u>k̄anu yaqraʔūn</u> 9indamā daqqa jjaras/
(C) <u>Analysis</u>	<u>Analysis</u>
I.S → NP + VP ... → NP + in the past + earlier + sim. + V	I.S → NP + VP → NP + bilmādi + ʔāniyyan + root
Tcar → NP + in the past + HAVE + earlier + BE + sim. + V	Tcar → NP + bilmādi + KWN + ʔāniyyan + root
Taf → NP + HAVE + in the past + BE + earlier + V + sim.	Taf → NP + KWN + bilmādi + root + ʔāniyyan

contd...

Table 117A contd.

ENGLISH	ARABIC
<p>→ NP + HAVE + D₁ + BE + D₂ + sleep + N</p> <p>→ he had been sleeping ...</p>	<p>→ NP + KWN + D₁ + NWM + P₂Ø</p> <p>→ huwa kāna nāʔim ...</p>
<p>II.</p>	<p>II.S → NP + VP ...</p> <p>→ NP + bilmādi + lā sābiqan + root</p> <p>Tcar → NP + bilmādi + KWN + lā sābiqan + root</p> <p>Taf → NP + KWN + bilmādi + root + lā sābiqan</p> <p>→ NP + KWN + D₁ + QR? + P₂</p> <p>→ hum kānu yaqraʔūn ...</p>
<p>(D) <u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Presence of earlier-aspect marker</p>	<p><u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Absence of earlier- aspect marker</p>

contd...

Table 117A contd.

ENGLISH	ARABIC
3. Presence of simultaneous-aspect marker	3. Presence of simultaneous-aspect marker
4. Tense carrier HAVE	4. Tense carrier KWN
5. Presence of aspect carrier BE	5. Absence of aspect carrier
II.1. Past-tense marker	II.1. Past-tense marker
2. Earlier-aspect marker	2. Non-earlier aspect marker
3. Presence of simultaneous-aspect marker	3. Absence of simultaneous-aspect marker
4. Presence of tense carrier	4. Presence of tense carrier
5. Presence of aspect carrier	5. Absence of aspect carrier

TABLE 117B
FUNCTIONAL COMPARISON

ENGLISH		ARABIC	
had been writing		kāna fā9il	kāna yaf9al
1.	<u>To indicate</u> An Activity begun at Pre-past and still Simultaneous with a Past Point/ Period	Action Simul- taneous with Point/Period at Pre-past	Duration at Pre-past
2.	Duration at Pre- past	Simultaneity with Pre-past	Duration at Pre-past
3.	Hypothetical Past (in Conditional Sentences)	Hypothetical Past (with <u>law</u>)	Hypothetical Past (with <u>law</u>)

TABLE 118A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : will be writing	<u>Form</u> : I. sayakūnu fā9il II. sayakūnu yaf9al III. sayaf9al
(B) <u>Examples</u>	<u>Examples</u>
I. He <u>will be sleeping</u> all day tomorrow.	I. /huwa <u>sayakūnu nāʔim</u> tuwāla yawmi lghad/
II. She <u>will be read-</u> <u>ing.</u>	II. /hiya <u>satakūnu taqraʔ/</u>
III. They <u>will be arriv-</u> <u>ing</u> next week.	III. /hum <u>sayasilūna</u> fi lʔusbū9i lqādim/
(C) <u>Analysis</u>	<u>Analysis</u>
I. S → NP + VP → NP + at pres- ent + later + sim. + V + Advt	I. S → NP + VP → NP + fi lhādir + lāhiqan + ʔāniyyan + root + Advt
Tcar → NP + at pres- ent + WILL + non-earlier + BE + sim. + V + Advt	Tcar → NP + fi lhādir + lāhiqan + KWN + ʔāniyyan + root + Advt

contd...

Table 118A contd.

ENGLISH	ARABIC
<p>Taf → NP + WILL + at present + BE + non-earlier + V + sim. + Advt → NP + WILL + \emptyset_1 + BE + \emptyset_2 + sleep + N + Advt</p> <p>→ he will be sleeping all day tomorrow</p>	<p>Taf → NP + fi lhādir + KWN + lāhiqan + root + ?āniyyan + Advt</p> <p>Taf → NP + KWN + fi lhādir + lāhiqan + root + ?āniyyan + Advt</p> <p>→ NP + KWN + P₁ + P₂ + NWM + P₂∅ + Advt</p> <p>→ huwa sayakūnu nā?im tuwāla yawmi lghad</p>
<p>II.</p>	<p>II.S → NP + VP</p> <p>→ NP + fi lhādir + lāhiqan + lā sābiqan + root</p> <p>Tcar → NP + fi lhādir + lāhiqan + KWN + lā sābiqan + root</p>

contd....

Table 118A contd.

ENGLISH	ARABIC
III.	<p>Taf → NP + fi lhādir + KWN + lāhiqan + root + lā sābiqan</p> <p>Taf → NP + KWN + fi lhādir + lāhiqan + root + lā sābiqan</p> <p>→ NP + KWN + P₁ + P₂₊ + root + P₂∅</p> <p>→ hiya satakūnu taqra?</p> <p>III.S → NP + VP</p> <p>→ NP + fi lhādir + lāhiqan + root + Advt</p> <p>Taf → NP + fi lhādir + root + lāhiqan + Advt</p> <p>Taf → NP + root + fi lhādir + lāhiqan + Advt</p> <p>→ NP + WSL + P₁ + P₂₊ + Advt</p> <p>→ hum sayasilūna fi lʔusbū9i lqādim</p>

contd...

Table 118A contd.

ENGLISH	ARABIC
<p>(D) <u>Formal Features</u></p> <p>I.1. Non-past tense marker</p> <p>2. Later-aspect marker</p> <p>3. Simultaneous-aspect marker</p> <p>4. Tense carrier WILL</p> <p>5. Presence of aspect carrier BE</p> <p>II.1. Non-past tense marker</p> <p>2. Later-aspect marker</p> <p>3. Simultaneous-aspect marker</p> <p>4. Presence of tense carrier</p> <p>5. Presence of aspect carrier</p> <p>III.1. Non-past tense marker</p> <p>2. Later-aspect marker</p> <p>3. Presence of sim.-aspect marker</p> <p>4. Tense carrier</p> <p>5. Aspect carrier</p>	<p><u>Formal Features</u></p> <p>I.1. Non-past tense marker</p> <p>2. Later-aspect marker</p> <p>3. Simultaneous-aspect marker</p> <p>4. Tense carrier KWN</p> <p>5. Absence of aspect carrier</p> <p>II.1. Non-past tense marker</p> <p>2. Later-aspect marker</p> <p>3. Non-earlier aspect marker</p> <p>4. Presence of tense carrier</p> <p>5. Absence of aspect carrier</p> <p>III.1. Non-past tense marker</p> <p>2. Later-aspect marker</p> <p>3. Absence of sim.-aspect marker</p> <p>4. No tense carrier</p> <p>5. No aspect carrier</p>

TABLE 118B
FUNCTIONAL COMPARISON

ENGLISH		ARABIC		
will be writing		sayakūnu fā9il	sayakūnu yaf9al	sayaf9al
1.	<u>To indicate</u> Simultaneity in the Future	Sim. in the Future	Duration in Future	Future Time (Non- Extendable Actions)
2.	Frequency in the Future	Frequency in Future ¹⁸	Frequency in Future	Future Time (Non- extendable Actions)
3.	Duration at Pre- future	Simulta- neity with Pre-future	Duration at Pre- future	Pre-Future (Non- extendable)
4.	Duration at Post- future	Sim. with Post-future	Duration at Post- future	Post-future (Non- extendable Actions)

contd...

¹⁸This function is not represented in the data of sayakūnu fā9il but it may be found in such Arabic sentences as: /huwa sayakūnu qāriʿan kutubahu kulla yawm fi lmustaqbal/ 'He will be reading his books every day in the future.'

Table 118B contd.

ENGLISH		ARABIC		
will be writing		sayakūnu fā9il	sayakūnu yaf9al	sayaf9al
5.	Tentativeness at Present or in the Future ¹⁹	Tentative- ness at Present or Near Future	Tentative- ness at Simulta- neous or Contempo- raneous Present	

TABLE 119A

FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : would be writ- ing	<u>Form</u> : I. kāna sayakūnu fā9il II. kāna sayakūnu yaf9al III. kāna sayaf9al IV. sayaf9al V. kāna yaf9al

contd...

¹⁹. This function is not represented in the data of will be writing reported in Chapter Six of Part Two. It may, however, be found in such sentences as: He will be sleeping now.

Table 119A contd.

ENGLISH	ARABIC
(B) <u>Examples</u>	<u>Examples</u>
I. She <u>would be sleep-</u> <u>ing</u> for some time after I left her yesterday.	I. /hiya <u>kānat satakūnu</u> <u>nāʔima liba9di</u> lwaqti ba9da ʔan taraktuhā bilʔams/
II. She <u>would be writ-</u> <u>ing</u> a letter after I left her yester- day.	II. /hiya <u>kānat satakūnu</u> <u>taktub</u> risāla ba9da ʔan taraktuhā bilʔams/
III. Layla <u>would be</u> <u>leaving</u> after I left her yesterday.	III. /layla <u>kānat satusāfir</u> ba9da ʔan taraktuhā bilʔams/
IV. He told me that Zeki <u>would be</u> <u>leaving</u> soon.	IV. /ʔakhbarani biʔanna zaki <u>sayusāfir</u> qarīban/
V. He <u>would be going</u> every Sunday.	V. /huwa <u>kāna yadhhab</u> kulla yawmi ʔahad/
(C) <u>Analysis</u>	<u>Analysis</u>
I.S → NP + VP...	I.S → NP + VP ...
→ NP + in the	→ NP + bilmādi +
past + later +	lāhiqan + ʔāniyyan
sim. + V + Advt	+ root + Advt

contd...

Table 119A contd..

ENGLISH	ARABIC
<p>Tcar → NP + in the past + WILL + non-earlier + BE + sim. + V + Advt</p> <p>Taf → NP + WILL + in the past + BE + non-earlier + V +sim: +Advt</p> <p>→ NP + WILL + D₁ + BE + Ø₂ + sleep + N + Advt</p> <p>→ she would be sleeping for some time...</p> <p>II.</p>	<p>Tcar → NP + bilmādi + KWN + lāhiqan + KWN + ?āniyyan + root + Advt</p> <p>Taf → NP + KWN + bilmādi + KWN + lāhiqan + root + ?āniyyan + Advt</p> <p>→ NP + KWN + D₁ + KWN + P₂₊ + NWM + P₂Ø + Advt</p> <p>→ hiya kānat satakūnu nā?ima liba9di lwaqti ...</p> <p>II.S → NP + VP</p> <p>→ NP₁ + bilmādi + lāhiqan + lā sābiqan + root + NP₂</p>

contd...

Table 119A contd..

ENGLISH	ARABIC
III.	<p>Tcar → NP₁ + bilmādi + KWN + lāhiqan + KWN + lā sābiqan root + NP₂</p>
	<p>Taf → NP₁ + KWN + bilmādi + KWN + lāhiqan + root + lā sābiqan + NP₂</p>
	<p>→ NP₁ + KWN + D₁ + KWN + P₂₊ + KTB + P₂ + NP₂</p>
	<p>→ hiya kānat satakūnu taktub risāla...</p>
	<p>III.S → NP + VP</p>
	<p>→ NP + bilmādi + lāhiqan + root + Advt</p>
	<p>Tcar → NP + bilmādi + KWN + lāhiqan + root + Advt</p>
	<p>Taf → NP + KWN + bilmādi + root + lāhiqan + Advt</p>

contd...

Table 119A contd.

ENGLISH	ARABIC
IV.	<p>→ NP + KWN + D₁ + SFR + P₂₊ + Advt</p> <p>→ laylā kānat satusāfir ...</p> <p>IV.S → ... NP + VP</p> <p>→ NP + fi lhādir + lāhiqan + root + Advt</p> <p>Taf → NP + fi lhādir + root + lāhiqan + Advt</p> <p>Taf → NP + root + fi lhādir + lāhiqan + Advt</p> <p>→ NP + SFR + P₁ + P₂₊ + Advt</p> <p>→ ... zaki sayusāfir qarīban</p>
	<p>V.</p> <p>V.S → NP + VP</p> <p>→ NP + bilmādi + lā sābiqan + root + Advt</p>

contd...

Table 119A contd.

ENGLISH	ARABIC
	<p>Tcar → NP + bilmādi + KWN + lā sābiqan + root + Advt</p> <p>Taf → NP + KWN + bilmādi + root + lā sābiqan + Advt</p> <p>→ NP + KWN + D₁ + DHHB + P₂ + Advt</p> <p>→ huwa kāna yadhhab kulla yawmi ʔahad</p>
<p>(D) <u>Formal Features</u></p> <p>I.1. Past-tense marker. 2. Later-aspect marker 3. Simultaneous- aspect marker 4. Tense carrier, WILL 5. Aspect carrier, BE</p> <p>II.1. Past-tense marker 2. Later-aspect marker 3. Simultaneous- aspect marker 4. Tense carrier 5. Aspect carrier</p>	<p><u>Formal Features</u></p> <p>I.1. Past-tense marker 2. Later-aspect marker 3. Simultaneous-aspect marker 4. Tense carrier, KWN 5. Aspect carrier, KWN</p> <p>II.1. Past-tense marker 2. Later-aspect marker 3. Non-earlier aspect marker 4. Tense carrier 5. Aspect carrier</p>

contd...

Table 119A contd.

ENGLISH	ARABIC
III.1.Past-tense marker	III.1.Past-tense marker
2.Later-aspect marker	2.Later-aspect marker
3.Presence of sim.- aspect marker	3.Absence of sim.- aspect marker
4.Tense carrier	4.Tense carrier
5.Presence of aspect carrier	5.Absence of aspect carrier
IV.1.Past-tense marker	IV.1.Non-past tense marker
2.Later-aspect marker	2.Later-aspect marker
3.Presence of sim.- aspect marker	3.Absence of sim.- aspect marker
4.Tense carrier	4.No tense carrier
5.Aspect carrier	5.No aspect carrier
V.1.Past-tense marker	V.1.Past-tense marker
2.Later-aspect marker	2.Non-earlier aspect marker
3.Presence of sim.- aspect marker	3.Absence of sim.- aspect marker
4.Tense carrier	4.Tense carrier
5.Aspect carrier	5.No aspect carrier

TABLE 119B
FUNCTIONAL COMPARISON

ENGLISH		A R A B I C				
would be writing		kāna saya-kūn fā9il	kāna saya-kūn yaf9al	kāna sayaf9al	sayaf9al	kāna yaf9al
1	<u>To indicate</u> Sim. at Later-past	Sim. at Later-past (Extendable Actions)	Duration at Later-past (Extended)	Intended Later-past (Non-extended)	Intended Later-past (Subordinate Clauses)	
2	Hypothetical Future (with <u>if</u> <u>not</u>)	Hypothetical Future (Extended)	Hypothetical Future (Extended)	Hypothetical Future (Non-extended)		
3	Tentative Future				Future Time	
4	Hypothetical Present or Near Future (<u>if</u> or <u>but</u>)	Hypothetical Sim. Present	Hypothetical Sim. Present	Hypothetical Present (Subordinate Clauses)		

contd...

Table 119B contd.

ENGLISH		A R A B I C				
would be writing		kāna saya-kūn fā9il	kāna saya-kūn yaf9al	kāna sayaf9al	sayaf9al	kāna yaf9al
5	Tentative Post-future				Post-future	
6	Tentative Pre-future				Pre-Future	
7	Hypothetical Pre-future (<u>if</u> or <u>but</u>)		Hypothetical Pre-future (Extended)	Hypothetical Pre-future (Non-extended)		
8	Past Habit					Past Frequency
9		Hypothetical Post-past	Hypothetical Duration at Post-past			

contd...

Table 119B contd.

ENGLISH		A R A B I C				
would be writing		kāna saya-kūn fā9il	kāna saya-kūn yaf9al	kana sayaf9al	sayaf9al	kāna yaf9al
10	Hypo- thetical Post- future ²⁰		Hypo- thetical Post- future (Extended)	Hypo- thetical Post- future (Non- extended)		

TABLE 120A

FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : will have written	<u>Form</u> : sayakūnu fa9al
(B) <u>Example</u> Zeki <u>will have written</u> the essay by next week.	<u>Example</u> /zaki <u>sayakūnu kataba</u> lmaqāla fi lʔusbū9i lqādim/
(C) <u>Analysis</u> S → NP + VP	<u>Analysis</u> S → NP + VP

contd...

²⁰ This function is not represented in the English inventory of functions in Part Two. On the analogy of functions 2 and 8 above, it may be found in such sentences as: I would be leaving after lunch tomorrow but for the rail strike.

Table 120A contd.

ENGLISH	ARABIC
<p>→ NP₁ + at present + later + earlier + V + NP₂ + Advt</p>	<p>→ NP₁ + fi lhādir + lāhiqan + sābiqan + root + NP₂ + Advt</p>
<p>Tcar → NP₁ + at present + WILL + non-earlier + HAVE + earlier + V + NP₂ + Advt</p>	<p>Tcar → NP₁ + fi lhādir + lāhiqan + KWN + sabiqan + root + NP₂ + Advt</p>
<p>Taf → NP₁ + WILL + at present + HAVE + non-earlier + V + earlier + NP₂ + Advt</p>	<p>Taf → NP₁ + fi lhādir + KWN + lāhiqan + root + sābiqan + NP₂ + Advt</p>
<p>→ NP₁ + WILL + Ø₁ + HAVE + Ø₂ + write + D₂ + NP₂ + Advt</p>	<p>Taf → NP₁ + KWN + fi lhādir + lāhiqan + root + sābiqan + NP₂ + Advt</p>
<p>→ Zeki will have written the essay by next week</p>	<p>→ NP₁ + KWN + P₁ + P₂ + KTB + D₂ + NP₂ + Advt</p> <p>→ zaki sayakūnu kataba lmaqāla fi lʔusbū9i lqādim</p>

contd...

Table 120A contd.

.ENGLISH	ARABIC
(D) <u>Formal Features</u>	<u>Formal Features</u>
1.Non-past tense marker	1.Non-past tense marker
2.Later-aspect marker	2.Later-aspect marker
3.Earlier-aspect marker	3.Earlier-aspect marker
4.Tense carrier, WILL	4.Tense carrier, KWN
5.Presence of aspect carrier, HAVE	5.Absence of aspect carrier

TABLE 120B

FUNCTIONAL COMPARISON

ENGLISH		ARABIC
will have written		sayakūnu fa9al
1.	<u>To indicate</u> Pre-future	Pre-future
2.	Time Earlier than a Post-future Point	Time Earlier than a Post- future Point ²¹

contd...

²¹This function is not represented in the test data of Arabic tenseemes. Yet, the tenseme will have written may be translated by the Arabic tenseme sayakūnu fa9al in all three sentences given for this function on page 339.

Table 120B contd.

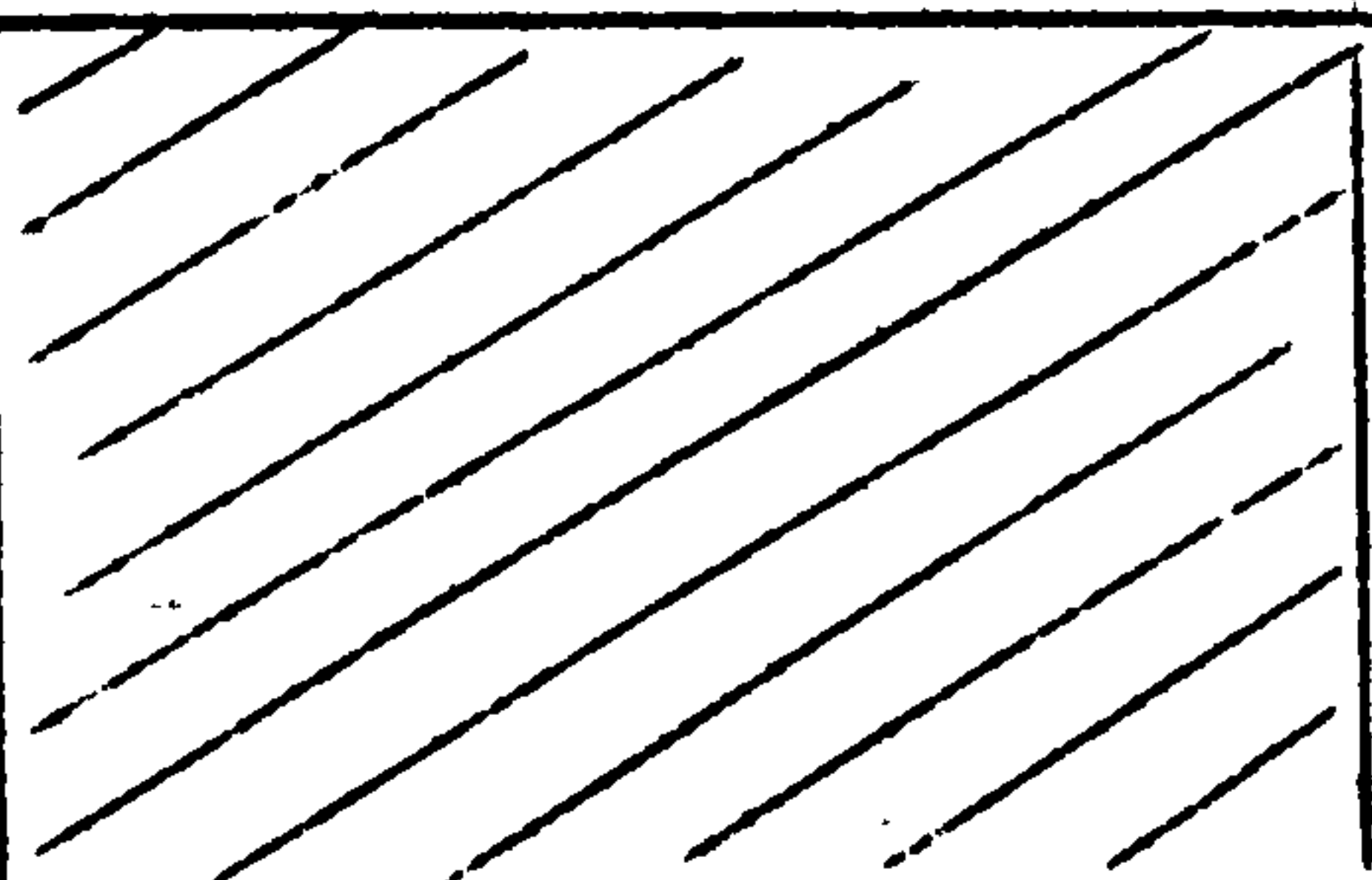
ENGLISH		ARABIC
will have written		sayakūnu fa9al
3.	Tentativeness at Recent Past ²²	Tentativeness at Recent Past
4.		Hypothetical Action Simultaneous with Present or Recent Past

TABLE 121A

FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : would have written	<u>Form</u> : I. kāna sayakūnu fa9al II. sayakūnu fa9al
(B) <u>Examples</u> I. By the time they reached the station, the train <u>would have gone</u> .	<u>Examples</u> I. /qabla ?an yasilu ?ila lmahatta <u>kāna</u> lqitār <u>sayakūnu</u> <u>dhahab</u> /

²²This function is not represented in the ^{contd} data of will have written given in Chapter Six of Part Two. It may, however, be found in such sentences as: I think he will have slept by now.

Table 121A contd.

ENGLISH	ARABIC
<p>II. He said that the train <u>would have gone</u> before she reached the station.</p>	<p>II. /qāla biʔanna lqitār sayakūnu dhahab qabla ʔan taṣila ʔila lmaḥatta/</p>
<p>(C) <u>Analysis</u></p> <p>I.S → ... NP + VP → NP + in the past + later + earlier + V</p> <p>Tcar → NP + in the past + WILL + non-earlier + HAVE + earlier + V</p> <p>Taf → NP + WILL + in the past + HAVE + non-earlier + V + earlier → NP + WILL + D₁ + HAVE + Ø₂ + V + D₂ → ... the train would have gone</p>	<p><u>Analysis</u></p> <p>I.S → ... NP + VP → NP + bilmādi + lāhiqan + sābiqan + root</p> <p>Tcar → NP + bilmādi + KWN + lāhiqan + KWN + sābiqan + root</p> <p>Taf → NP + KWN + bilmādi + KWN + lāhiqan + root + sābiqan</p> <p>T_{invert} → KWN + bilmādi + NP + KWN + lāhiqan + root + sābiqan → KWN + D₁ + NP + KWN + P₂₊ + DHHB + D₂</p>

contd...

Table 121A contd.

ENGLISH	ARABIC
<p>II.</p>	<p>→ ... kāna lqitār sayakūnu dhahab</p> <p>II.S → ... NP + VP ...</p> <p>→ NP + fi lhādir + lāhiqan + sābiqan + root</p> <p>Tcar → NP + fi lhādir + lāhiqan + KWN + sābiqan + root</p> <p>Taf → NP + fi lhādir + KWN + lāhiqan + root + sābiqan</p> <p>Taf → NP + KWN + fi lhādir + lāhiqan + root + sābiqan</p> <p>→ NP + KWN + P₁ + P₂ + + DHHB + D₂</p> <p>→ ... lqitār sayakūnu dhahab...</p>
<p>(D) <u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Later-aspect marker</p>	<p><u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Later-aspect marker</p>

contd...

Table 121A contd.

ENGLISH	ARABIC
<p>3.Earlier-aspect marker</p> <p>4.Tense carrier, WILL</p> <p>5.Aspect carrier, HAVE</p>	<p>3.Earlier-aspect marker</p> <p>4.Tense carrier, KWN</p> <p>5.Aspect carrier, KWN</p>
<p>II.1.Past-tense marker</p> <p>2.Later-aspect marker</p> <p>3.Earlier-aspect marker</p> <p>4.Tense carrier, WILL</p> <p>5.Aspect carrier, HAVE</p>	<p>II.1.Non-past tense marker</p> <p>2.Later-aspect marker</p> <p>3.Earlier-aspect marker</p> <p>4.Tense carrier, KWN</p> <p>5.No aspect carrier</p>

TABLE 121B
FUNCTIONAL COMPARISON

ENGLISH		ARABIC	
would have written		kāna sayakūnu fa9al	sayakūnu fa9al
	<u>To indicate</u>		
1.	Time earlier than a Point at Later-past	Tentative Action earlier than a Later-past Point (Main Clauses)	Tentative Action earlier than a Later-past (Subordinate Clauses) ²³
2.	Hypothetical Past	Hypothetical Past	
3.	Hypothetical Future (<u>if</u>)	Hypothetical Future	
4.	Hypothetical Post-past	Hypothetical Post-past	
5.	Hypothetical Simultaneous Present	Hypothetical Simultaneous Present ²⁴	

²³This function is not represented in the datum of sayakūnu fa9al in the functions inventory of Part Three. Yet it may be found in sentences like number II in Table 121A above.

²⁴This function is not represented in the functions of kāna sayakūnu fa9al in Part Three. It may however be found in the Arabic translation, reported in Appendix D, of sentence number (1.50) of would have written:

We would have left just now but it is raining.
/kunna sanakunu ghadarnā lʔān lawla lmatār/

TABLE 122A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : will have been writing	<u>Form</u> : sayakūnu fa9al
(B) <u>Example</u> By midnight, he <u>will have been writing</u> for ten hours.	<u>Example</u> /fi muntasafi llayl, huwa <u>sayakūnu katab</u> li9ashr ⁱ at sā9āt/
(C) <u>Analysis</u> S → NP + VP → NP + at present + later + earlier + sim. + V + Advt	<u>Analysis</u> S → NP + VP → NP + fi lhādir + lāhiqan + sābiqan + root + Advt
Tcar → NP + at present + WILL + non-earlier + HAVE + earlier + BE + sim. + V + Advt	Tcar → NP + fi lhādir + lāhiqan + KWN + sābiqan + root + Advt
Taf → NP + WILL + at present ^{HAVE} + earlier + BE + earlier + V + sim. + Advt	Taf → NP + fi lhādir + KWN + lāhiqan + root + sābiqan + Advt

contd...

Table 122A contd.

ENGLISH	ARABIC
<p>→ NP + WILL + \emptyset_1 + HAVE + \emptyset_2 + BE + D₂ + write + N + Advt</p> <p>→ he will have been writing for ten hours by midnight</p>	<p>Taf → NP + KVN + fi lhādir + lāhiqan + root + sābiqan + Advt</p> <p>→ NP + KVN + P₁ + P₂ + + KTB + D₂ + Advt</p> <p>→ huwa sayakūnu katab li9ashr^īī sā9āt fi muntasafi llayl</p>
<p>(D) <u>Formal Features</u></p> <ol style="list-style-type: none"> 1. Non-past tense marker 2. Later-aspect marker 3. Earlier-aspect marker 4. Simultaneous aspect marker 5. Tense carrier, WILL 6. Later-aspect carrier, HAVE 7. Earlier-aspect carrier, BE 	<p><u>Formal Features</u></p> <ol style="list-style-type: none"> 1. Non-past tense marker 2. Later-aspect marker 3. Earlier-aspect marker 4. No simultaneous aspect marker 5. Tense carrier, KVN 6. No later-aspect carrier 7. No earlier-aspect carrier

TABLE 122B
FUNCTIONAL COMPARISON

ENGLISH		ARABIC
will have been writing		sayakūnu fa9al
1.	<u>To indicate</u> Simultaneity with Pre-future	Pre-future
2.	Past Activity Continuing up to Simultaneous Present	Past Activity Continuing up to Simultaneous Present ²⁵

²⁵This function is not represented in the datum of sayakūnu fa9al in the General Inventory of Functions of Arabic tenseemes in Part Three. Yet it may be seen in the Arabic translation of English sentence number (1.22) of will have been writing, which is:

He will have been working on that building site for five months now.

/sayakūnu shtaghla fi hādhihi lbināya likhamsati
ʔashhura lʔan/

TABLE 123A
FORMAL COMPARISON

ENGLISH	ARABIC
(A) <u>Form</u> : would have been writing	<u>Form</u> : I. kāna sayakūnu fa9al II. kāna sayakūnu fā9il III. kāna sayakūnu yaf9al
(B) <u>Examples</u>	<u>Examples</u>
I. She <u>would have been going</u> but for the rain.	I. /hiya <u>kānat satakūnu dhahabat</u> lawla lmaṭar/
II. She <u>would have been sleeping</u> but for the noise.	II. /hiya <u>kānat satakūnu nāʔima</u> lawla ḍḍajja/
III. She <u>would have been writing</u> but for the power-cut.	III. /hiya <u>kānat satakūnu taktub</u> lawla nqitā9i ttayār/
(C) <u>Analysis</u>	<u>Analysis</u>
I.S → NP + VP → NP + in the past + later + earlier + sim. + V + X	I.S → NP + VP → NP + bilmādi + lāhiqan + sābiqan + root + X

contd...

Table 123A contd.

ENGLISH	ARABIC
<p>Tcar → NP + in the past + WILL + non-earlier + HAVE + earlier + BE + sim. + V + X</p> <p>Taf → NP + WILL + in the past + HAVE + non-earlier + + BE + earlier + V + sim. + X</p> <p>→ NP + WILL + D₁ + HAVE + Ø₂ + BE + D₂ + go + N + X</p> <p>→ she would have been going but for the rain</p> <p>II.</p>	<p>Tcar → NP + bilmādi + KWN + lāhiqan + KWN + sābiqan + root + X</p> <p>Taf → NP + KWN + bilmādi + KWN + lāhiqan + root + sābiqan + X</p> <p>→ NP + KWN + D₁ + KWN + P₂ + DHHB + D₂ + X</p> <p>→ hiya kānat satakūnu dhahabat lawla lmaṭar</p> <p>II.S → NP + VP</p> <p>→ NP + bilmādi + lāhiqan + ?āniyyan + root + X</p>

contd...

Table 123A contd.

ENGLISH	ARABIC
III.	<p>Tcar → NP + bilmādi + KWN + lāhiqan + KWN + ?āniyyan + root + X</p> <p>Taf → NP + KWN + bilmādi + KWN + lāhiqan + root + ?āniyyan + X</p> <p>→ NP + KWN + D₁ + KWN + P₂₊ + NWM + P₂∅ + X</p> <p>→ hiya kānat satakūnu nā?ima lawla ddaajja</p> <p>III.S → NP + VP</p> <p>→ NP + bilmādi + lāhiqan + lā sābiqan + root + X</p> <p>Tcar → NP + bilmādi + KWN + lāhiqan + KWN + lā sābiqan + root + X</p>

contd...

Table 123A contd.

ENGLISH	ARABIC
	<p>Taf → NP + KWN + bilmādi + KWN + lāhiqan + root + lā sābiqan + X</p> <p>→ NF + KWN + D₁ + KWN + P₂₊ + KTB + P₂ + X</p> <p>→ hiya kānat satakūnu taktub lawla nqitā9i ttayyār</p>
<p>(D) <u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Later-aspect marker</p> <p>3. Earlier-aspect marker</p> <p>4. Simultaneous- aspect marker</p> <p>5. Tense carrier</p> <p>6. Later-aspect carrier, HAVE</p>	<p><u>Formal Features</u></p> <p>I.1. Past-tense marker</p> <p>2. Later-aspect marker</p> <p>3. Earlier-aspect marker</p> <p>4. No Simultaneous- aspect marker</p> <p>5. Tense carrier</p> <p>6. Later-aspect carrier, KWN</p>

contd...

Table 123A contd.

ENGLISH	ARABIC
7.Earlier-aspect carrier, BE	7.No earlier-aspect carrier
II.1.Past-tense marker	II.1.Past-tense marker
2.Later-aspect marker	2.Later-aspect marker
3.Earlier-aspect marker	3.No earlier-aspect marker
4.Simultaneous-aspect marker	4.Simultaneous-aspect marker
5.Tense carrier	5.Tense carrier
6.Later-aspect carrier, HAVE	6.Later-aspect carrier, KWN
7.Earlier-aspect carrier, BE	7.No earlier-aspect carrier
III.1.Past-tense marker	III.1.Past-tense marker
2.Later-aspect marker	2.Later-aspect marker
3.Earlier-aspect marker	3.Non-earlier aspect marker
4.Simultaneous-aspect marker	4.No simultaneous-aspect marker
5.Tense carrier	5.Tense carrier
6.Later-aspect carrier, HAVE	6.Later-aspect carrier, KWN
7.Earlier-aspect carrier, BE	7.No earlier-aspect carrier

TABLE 123B

FUNCTIONAL COMPARISON

ENGLISH		A R A B I C			
would have been writing		kāna sayakūnu fa9a1	kāna saya- kūnu fā9i1	kāna saya- kūnu yaf9a1	
1.	<u>To indicate</u> Hypothetical Action Sim. with a Time Earlier than Later-past	Hypothetical Action Earlier than Later-past (with <u>lawlā</u>) (Non- extendable Actions)	Hypothet- ical Sim. with Later- past	Hypothet- ical Duration at Later- past	
2.	Hypothetical Future	Hypothetical Future (Non- extendable Actions)	Hypothet- ical Future	Hypothet- ical Future	
3.	Hypothetical Past	Hypothetical Recent Past (Non- extendable Actions)		Hypothet- ical Past	
4.	Hypothetical Present		Hypothet- ical Sim. Present	Hypothet- ical Sim. Present	

CHAPTER THREE

PEDAGOGICAL IMPLICATIONS

(A) Introduction

The purpose of this chapter is to relate the findings of the descriptive and contrastive analyses carried out thus far in the present study to the problems of learning and teaching English as a foreign language in the Arab world. This is primarily done here by the identification, interpretation, and analysis of potential problematic areas in the learning of English. These problematic areas are believed to consist of the differences and contrasts between the native language of the learners, Arabic in this case, and the target-language system, English in this case. It has in fact been contended that it is the degree of control of these differences that is the real index of how much of a foreign language a learner has really acquired.¹ The basic tenet on which the identification of problematic areas in this chapter is founded is that interference from Arabic is the prime source of learning problems of English; learning problems vary according to the type and degree of this interference. Consequently, two major types of learning problems are identified here: (a) positive-interference

¹Lado, Linguistics Across Cultures, p 59.

problems and (b) negative-interference problems.² However, the identification of potential learning problems is not the sole, nor is it the chief, objective of this chapter. The chief objective is rather the explanation of why certain structures are liable to be problematic and specifically what features in those structures in fact cause the learning problem in question.

(B) The Method of Interpreting

The Contrastive Tables

For the purpose of the interpretation of the thirty-two contrastive tables shown in Chapter Two above, each pair of formal and functional tables for the equivalent English-Arabic tenseemes is taken separately. By examining each formal-functional pair of tables for the contrastive tenseemes involved, a list of potential learning problems involved in the tenseemes of those two tables is arrived at and analyzed. The process of interpretation used for the discovery of learning problems is based on the tenet, already mentioned in Section (A) of this chapter above, that in foreign-language learning the prime source of learning problems is interference from the native language of the learners. The direction of the interference here is thus

²The difference between these two types of interference is explained in section (B) below.

from Arabic to English since Arab students start learning English with their already-acquired background of the linguistic behaviour of Arabic.

To systematize the interpretation process, two types of interference from Arabic are identified here: positive interference and negative interference. Generally speaking, positive-interference problems consist of those formal features and functions that exist in Arabic but are missing in English. The transfer of such formal features and functions from Arabic to English usually results in learning problems, as will be explained in more detail below. Negative-interference problems, on the other hand, comprise formal features and functions that exist in English tenseemes but are lacking in their Arabic equivalents. The absence of these formal features and functions in Arabic would make them especially difficult for Arab learners of English to understand and to use.

As seen from sections (B) and (C) of the preceding chapter, contrastive tables can be of three types: (1) tables that only consist of the English tenseme being compared and its formal Arabic equivalent tenseme, (2) tables that have one or more Arabic functional equivalents to the English tenseme besides the formal Arabic equivalent tenseme, and (3) tables that only have Arabic functional equivalents to the English tenseme in question, i.e. where no formal equivalent is available in Arabic to the English

tenseme in question. It might make the explanation of the interpretative method of the contrastive tables easier if we took each of the above three types of tables separately and saw how positive and negative interference from Arabic could be identified in each case.

The first of the three types of contrastive tables mentioned above is in fact the easiest to interpret. In such tables, problematic functions are clearly indicated in the contrastive tables by shaded squares on either the English or the Arabic side of the functional contrastive tables of the tenseemes involved. All functions that are indicated by the Arabic tenseme but are missing in the functions of its English equivalent will represent potential positive-interference learning problems. It must be emphasized that this does not mean that such functions cannot be indicated in English, but rather that these functions are distributed differently in English, i.e., that they are indicated by tenseemes other than by the one formally equivalent to the Arabic tenseme in question. The hazard in these cases is that Arab learners will be tempted to transfer to English formal features of the ^{formal}~~functional~~ equivalent that indicate such functions in Arabic. A transfer of this sort would often result in ungrammatical English sentences, as will be seen from the examples given in the inventory of learning problems later in this chapter. Conversely, functions indicated by an English tenseme but not represented

among the functions of its Arabic formal equivalent would constitute negative-interference learning problems since in Arabic these functions would be indicated by tenseemes other than the one formally equivalent to the English tenseme in question. Since these functions are distributed differently in Arabic, they would be difficult for Arab learners of English. As far as formal features are concerned, there can be little interference either positive or negative in this type of contrastive tables since the two tenseemes being compared are formally equivalent. There could, however, still be some occasional problems here both ways as may be seen from the inventory of learning problems inferred from contrastive tables of formally equivalent tenseemes in Section 1(C) below.

Contrastive tables that contain one or more Arabic functional equivalents alongside the Arabic formal equivalent are a little more difficult to interpret. Primarily, the deduction of both formal and functional learning problems is based on the English tenseme in question and on its Arabic formal equivalent along the same principles outlined in the above paragraph. Other Arabic equivalents, viz. the functional equivalents, have only been included in the translation, and hence appear in such contrastive tables, to account for functions that are indicated by an English tenseme but not by its Arabic formal equivalent. Thus in this type of contrastive tables, as well as in others, there could be no function of

an English tenseme that is not indicated by at least one Arabic equivalent, whether formal or functional. This would rule out any cases of negative interference in functions between the English tenseme in question and its Arabic functional equivalent(s). This would not, however, rule out negative-interference learning problems in functions between the two formally equivalent tensemes in such tables. This is because negative- and positive-interference problems are, as has just been said above, basically defined in relation to the two formal equivalent tensemes in such tables. Thus a function indicated by an English tenseme but not by its formal equivalent in a given contrastive table would be problematic, though it is shown to be indicated by another Arabic tenseme in the same table. These negative-interference problematic functions could give rise to positive-interference formal learning problems since in such functions Arab learners of English will tend to transfer the formal features of the equivalent functional Arabic tenseme in the specific function(s) w h i c h is/are not indicated by the Arabic formal equivalent of a given English tenseme. It is necessary to keep in mind, however, that such a transfer of formal features from functional equivalents does not necessarily always result in ungrammatical English sentences. Owing to redundancy in the English tense system, i.e. that the same function could be indicated by more than one tenseme, the formal features of some functional Arabic tensemes could

still be correctly used in English to indicate the function which is shown in a given contrastive table to be indicated by a formally different English tense. Thus in Table 114B above, the transfer of yaf9al (=writes) to English to indicate contemporaneous present would not result in a learning problem since in English both:

1. He is working hard these days, and

2. He works hard these days,

are possible. Such cases of positive formal interference are consequently not included in the following inventory of learning problems since they do not produce any linguistic errors in English.

It finally remains to say a word on the method of interpretation of the third type of contrastive tables, viz. those with no Arabic formal equivalents to the English tenseemes being compared. In such tables, there can be no positive interference as far as functions are concerned since only the functions of the English tenseemes are listed in full while each Arabic functional equivalent appears opposite the function or functions it indicates. In contrastive tables of this type, there can be no negative functional interference either since there can be no function of any compared English tenseeme that has no Arabic functional equivalent. Thus the only kind of interference left possible is the formal one. Formal positive-interference problems result when Arab learners of English transfer the

formal features of the Arabic functional equivalents and use them in English for the indication of the function(s) they indicate in Arabic. As has been said in the previous paragraph, this kind of transfer does not necessarily always lead to learning problems for the reasons given above. This third type of contrastive tables would, however, show the major learning problems of formal negative interference since English tenseemes with no Arabic formal equivalents are difficult both to comprehend and to produce by Arab learners. The specific formal features that cause problems in such English tenseemes are those that are missing or are distributed differently in their Arabic functional equivalent tenseme(s), especially those formally closest to these English tenseemes.

(C) A Detailed Inventory of Potential
Learning Problems for Arab Learners
of English

I. Learning Problems
Inferred from Contrastive Tables

108A & B

(A) Positive-Interference Problems

- (1) The obligatory presence of a pronominal subject prefix with yaf9al may be transferred to English to take the form of a subject pronoun preceding

writes even in cases where another subject is present.³ This will result in such erroneous sentences as:

*My friends they speak English very well.

- (2) The Arabic tenseme yaf9al may be either preceded or followed by its subject whereas the English tenseme writes may only be preceded by its subject.⁴ On the analogy of subjects following yaf9al in Arabic,⁵ Arab learners of English may produce ungrammatical sentences like:

*Live my friends in Baghdad.

- (3) Arabic uses yaf9al to indicate in Function (1) all sorts of actions going on at simultaneous present whereas English uses writes to indicate simultaneous present in limited situations only, such as demonstrations and reporting games on the radio.⁶ Arab learners of English will be tempted to

³This feature exists in all Arabic non-past tenseemes and may thus be transferred to their formally equivalent English tenseemes. Though the problem will not be stated again in the inventories of learning problems of other non-past English tenseemes, it must be understood to exist in all of them.

⁴Except in very few cases, like: 'Here comes the train', which cannot be generalized upon.

⁵This characteristic is found in all Arabic tenseemes. It is thus to be understood as a potential learning problem with all equivalent English tenseemes.

⁶See pp.197-199 for a discussion on this.

generalize and to use writes to indicate all cases of simultaneous present in English. This will lead to such English sentences as:

*They study in their room now,

*I learn French these days,

instead of:

They are studying in their room now.

I am learning French these days.

- (4) In the indication of past activity continuing up to simultaneous present in Function (9), Arab learners of English may transfer the formal features of their tenseme yaf9a1 to English and thus produce such sentences as:

*They read for half an hour now.

*I live in Basrah since 1967.

- (5) On the analogy of Function (10) of yaf9a1 in Arabic, viz. indicating past time, Arab learners of English may use writes to indicate past time after negative particles. This will lead to such errors as:

*We not go to school yesterday.

(B) Negative-Interference Problems

- (1) Arabic tenseemes have no formal feature equivalent to the third person singular 's' in English. Arab learners of English will find this formal feature difficult and will tend to drop it when producing

English sentences that require it. Thus, they will often produce sentences like:

*Layla speak English.

*He write with his left hand.

II. Learning Problems

Inferred from Contrastive Tables

109A & B

(A) Positive-Interference Problems

- (1) Arab learners are liable to transfer function (8) of fa9al, i.e. past activity continuing up simultaneous present, to wrote in English and may thus produce such sentences as:

*He wrote poetry since 1940.

*I did not see him for two weeks now.

- (2) Arab learners may similarly use wrote to indicate hypothetical past, i.e.. Function (9) of fa9al, and thus produce conditional sentences like:

*If he came yesterday,...

- (3) Arab learners may use the nearest English formal equivalent to kāna yaf9al, i.e. was writing, to indicate past frequency of Function (3). Thus they may produce such sentences like:

*When he was young, he was having a bath every day.
instead of:

When he was young, he had a bath every day.

- (4) In Function (3) of past frequency, as well as in Functions(4) and (6), Arab learners may transfer to English the formal features of kāna yaf9al, i.e. a past-tense marker plus a non-earlier aspect marker. This will yield such ungrammatical sentences as:

*When I was at school, I was go to bed early.

(B) Negative-Interference Problems

- (1) Arab learners will find Function (3) of wrote, viz. frequency in the past, difficult to recognize since Arabic uses the tenseme kāna yaf9al rather than the formal equivalent of wrote, i.e. fa9al, in such situations.
- (2) Due to the absence of the sense of tentativeness from the use of fa9al in Arabic when used in Function (7) to indicate past time in conditional sentences, Arab students would be liable to fail to recognize the tentative nature, or the implied improbability, in such English conditional sentences as:

If he came tomorrow, I would go with him.

III. Learning Problems

Inferred from Contrastive Tables

110A & B

(A) Positive-Interference Problems

- (1) Arab learners may transfer the indication of Pre-past

of yakūnu fa9al in Function (8) to English and thus produce sentences like:

*She has gone there before I telephoned.

- (2) To indicate Function (1) of has written, viz unspecific earlier-present, Arab learners may use wrote since in Arabic they would use fa9al in this function. This transference from Arabic will result in erroneous English sentences like:

*I did not see him yet.

- (3) Arab learners may use the nearest formal equivalent to kāna yaf9al in English, viz was writing, when indicating past frequency in Function (3) of has written. They may thus produce:

*I was often going there,
instead of:

I have often gone there.

- (4) Arab learners may transfer the sense of tentativeness of yakūnu fa9al in Functions (1), (2), and (5) to the corresponding functions of has written. They may thus erroneously take:

He has gone,
to mean:

He may have gone.

- (5) The formal features of fa9al in Function (6), i.e. when used to indicate perceivable simultaneous activity, may be transferred to English to produce:

*He almost finished right now.

(B) Negative-Interference Problems

- (1) The use of has written in Function (3) to indicate past frequency will be difficult since Arabic uses a formally different tense to indicate this function.
- (2) The use of has written to indicate Function (4), viz. post-past, will be difficult for Arab students of English for the same reason just given in point (1) above.
- (3) The use of has written to indicate perceivable simultaneous activity in Function (6) will be difficult for the same reason given in point (1) above.
- (4) Arab learners will find it difficult to distinguish temporally between earlier-present and past since Arabic only has past in its corresponding functions. (See Functions (1), (2), and (3) in this respect).
- (5) The distinction between has and have of has written will be difficult for Arab learners to make correctly since there is no corresponding formal distinction to this in Arabic.

... of ...
... of ...
... of English ...

IV. Learning ProblemsInferred from Contrastive Tables111A & B(A) Positive-Interference Problems

- (1) Arab learners of English may use had written for the indication of Function (3), viz. general past, on the analogy of kāna fa9al in Arabic. They may thus produce sentences like:

*I had seen this film in the past,
instead of:

I saw this film in the past.

- (2) Arab learners of English may use had written to indicate a specific past on the analogy of the use of kāna fa9al in Function (4). This will lead to such erroneous sentences as:

*He had written the letter an hour ago,

*I had seen her last week,

instead of:

He wrote the letter an hour ago, and

I saw her last week.

- (3) Arab learners of English may erroneously use had written to indicate duration in the past on the analogy of Function (5) of kāna fa9al, e.g.:

*He had studied all last week.

- (4) Arab learners of English may transfer the use of

(B) : kāna fa9al for hypothetical simultaneous present in Function (6) from Arabic to English, thus producing such erroneous sentences as:

*I had left now if it were not for the rain,
instead of:

I would have left now if it were not for the rain.

(B) Negative-Interference Problems

None

(A) : V. Learning Problems

Inferred from Contrastive Tables

1i2A & B

(A) Positive-Interference Problems

(1) Arab students of English may transfer the Arabic use of sayaf9al to indicate hypothetical future in Function (6) to the English tense will write and thus produce erroneous English sentences like:

*I will go next week but for some previous commitments.

(2) Arab learners of English will tend to transfer the use of sayaf9al in Function (7) to its English formal equivalent will write to indicate intended later-past in subordinate clauses. This will result in such erroneous sentences as:

*He said he will come.

(B) Negative-Interference Problems

- (1) The modal will of will write may cause problems to beginners since Arabic most frequently uses the prefix /sa-/, rather than an independent word, to indicate later-aspect.⁷

VI. Learning ProblemsInferred from Contrastive Tables113A & B(A) Positive-Interference Problems

- (1) Function (5) of kāna sayaf9al, viz. hypothetical post-past, may be transferred to would write, thus producing something like:

*Yesterday, she would travel after lunch but for the breakdown in her car.

- (2) Function (6) of kāna sayaf9al, i.e. tentative past, maybe transferred to would write; thus Arab learners may produce:

*She would travel at ten last night.

- (3) Function (7) of kāna sayaf9al in Arabic, i.e. hypothetical past, may be transferred to would write, thus producing erroneous English sentences like:

*The man would leave last week but for the loss of his money

⁷Arabic does also have the independent word sawfa for such purposes. Sawfa, however, is far less used than /sa-/ as a later-aspect marker in Arabic.

- (4) Function (8) of kāna sayaf9al in Arabic, viz. hypothetical pre-past, may be transferred to English to be indicated by would write, thus producing:

*He would travel before I arrived but he had no Money.

- (5) Function (9) of kāna sayaf9al, viz. hypothetical pre-future, may be transferred to English to be indicated by would write. Arab learners may thus produce:

*He would travel before the exams next month but for his illness.

- (6) Function (10) of kāna sayaf9al, ie. hypothetical simultaneous or contemporaneous present, may be transferred to English would write. This will give rise to such inappropriate sentences as:

*They would travel now but for the thick fog.

- (7) Function (11) of kāna sayaf9al, viz. hypothetical post-future, may be transferred to would write in English. This would lead to such sentences as:

*Layla would travel after her graduation next month but for her other commitments.

- (8) In Function (1), Arab learners of English may transfer to English the Arabic use of sayaf9al for later-past in subordinate clauses and thus produce sentences like:

* He said he will come.

*He stayed up late last Friday because he will have exams the next morning.

(B) Negative-Interference Problems

- (1) The use of would write to indicate later-past in subordinate clauses, in reported speech in particular, will be problematic. Arabic uses sayaf9al (=will write) in such cases.
- (2) The use of would write to indicate futurity in Function (2) would not be easy to recognize or to produce for Arab learners of English since Arabic would never use its formal equivalent, i.e. kāna sayaf9al, in such cases but rather sayaf9al, (=will write).
- (3) The use of would write to indicate a past habit in Function (4) will be problematic both to comprehend and to produce. Arabic uses kāna yaf9al or fa9al in such cases.

VII. Learning Problems

Inferred from Contrastive Tables

114A & B

(A) Positive-Interference Problems

- (1) Arabic uses yakūnu fā9il to indicate tentativeness at simultaneous present in Function (1). For reference to ordinary simultaneous present, Arabic

uses yaf9al. Arab learners of English may thus transfer the formal features of yaf9al to indicate Function (1) in English. They may thus produce sentences like:

*He studies in his room now,
instead of:

He is studying in his room now.

- (2) In Function (1), (3), (5), (6), (7), (8) and (9), Arab learners of English may transfer the non-earlier aspectual marker of yakūnu yaf9al to English and thus produce the ungrammatical sequence:

*is write
to indicate all the above-mentioned functions in English.

- (3) Arab learners of English may use writes to indicate Function (2), i.e. contemporaneous present, in English on the analogy with the Arabic yaf9al. This will result in such inappropriate sentences as:

*He learns French these days.

- (4) Function (6) of yakūnu fā9il, i.e. habitual action later than an unspecified point, may be transferred to is writing in English and thus Arab learners of English may produce sentences like:

*He is sleeping everyday after he takes a bath.

- (5) Function (8) of yakūnu fā9il, i.e. action simultaneous with post-future, may be transferred to is writing in

English and thus Arab pupils may produce English sentences like the following:

*The baby is playing after he gets his food in ten minutes,

instead of:

The baby will be playing after he gets his food in ten minutes.

(6) Function (9) of yakūnu fā9il, i.e. action simultaneous with pre-future, may be transferred to is writing in English and thus Arabs may produce erroneous English sentences like:

*He is saying goodbye tomorrow before he leaves, instead of:

He will be saying goodbye tomorrow before he leaves.

(B) Negative-Interference Problems

(1) The use of is writing to indicate simultaneous present in Function (1) will be problematic for Arab learners of English since its Arabic formal equivalent yakūnu fā9il is only used to indicate tentativeness in simultaneous present. Ordinary simultaneous present is indicated in Arabic by yaf9al (=writes).

(2) The use of is writing in Function (2) to indicate contemporaneous present will also prove problematic

for Arab learners of English since they use yaf9al (=writes) in such situations in Arabic.

- (3) The sense of planning in Function (4) of planned futurity will be difficult to comprehend by Arab learners of English since Arabic does not make a distinction in verbs between a planned future and just an expected one. This will make it difficult for Arabs to recognize the difference between:

I am leaving tomorrow (planned future), and

He will pass the next examination. (expectation)

This lack of distinction may give rise to such erroneous English sentences as:

*It is raining tomorrow.

*He is passing the next examination.

- (4) The distribution of is and are in the initial component of is writing may be difficult for beginning Arab learners of English since Arabic has no similar formal phenomenon.

VIII. Learning Problems

Inferred from Contrastive Tables

115A & B

(A) Positive-Interference Problems

- (1) Function (6) of kāna fā9il, viz. hypothetical past, may be carried over to English to produce errors like:

*If he was studying well last year, he...

- (2) Function (7) of kāna fā9il, viz. hypothetical simultaneous present, may also be transferred to English from Arabic by some Arab learners of English. This will result in such sentences as:

*She was reading now but for the power-cut.

- (3) Function (8) of kāna fā9il, i.e. hypothetical post-past, may be transferred to English. This will give rise to such erroneous English sentences as:

*He said he was leaving after his graduation... instead of:

He said he would have left after his graduation if it had not been for the accident.

- (4) In all functions (2), (3), (4), (5), (6), and (7), the non-earlier aspect of yaf9al in kāna yaf9al may be transferred to English to replace the simultaneous aspect of was writing. Thus, in all the above-mentioned sentences beginning Arab learners of English may produce the ungrammatical sequence :

*was write

(B) Negative-Interference Problems

- (1) Beginners will find it difficult to make the correct choice between was and were in the initial component of was writing. This is because Arabic has no corresponding formal distribution in its

verb 'to be', kāna.⁸

IX. Learning Problems

Inferred from Contrastive Tables

116A & B

(A) Positive-Interference Problems

- (1) For the indication of Function (1), viz. past activity continuing up to simultaneous present, Arab learners of English may transfer the formal features of their Arabic tense yaf9al, to English. This will result in sentences like the following:

*He waits since 12 o'clock.

*She writes that essay for ages.

- (2) The tentativeness of yakūnu fa9al in Function (2), i.e. activity continuing at pre-future, may be erroneously transferred to the use of has been writing in the same function. This will lead to a partial misunderstanding of the use of has been writing in Function (2).

(B) Negative-Interference Problems

- (1) The English tense has been writing will be difficult both to produce and to understand for

⁸However, when kāna follows, rather than precedes, its subject it is inflected for number in Arabic. In this post-subject position, Arabic distinguishes between singular kāna, dual kānā, and plural kānu (masc.) or kunna (fem.).

Arab learners of English. This is because Arabic has no formal equivalent to it since in Arabic earlier and simultaneous aspectual markers are never found together in any one tense.

- (2) Arab learners of English will also find it difficult to use correctly has, as opposed to have, when has been writing is preceded by a subject in the third person singular case. This is because Arabic makes no special arrangements for third person singular subjects in this way.⁹

X. Learning Problems

Inferred from Contrastive Tables

117A & B

(A) Positive-Interference Problems

- (1) The terminal non-earlier aspect in kāna yaf9al may be transferred to English to replace the terminal aspect of had been writing in all the three functions mentioned in Table 117B. This transfer will result in the ungrammatical sequence:

*had been write

- (2) Alternatively, Arab learners of English may transfer the simultaneous aspect of kāna fā9il to replace the earlier aspect of had been writing. This will yield

⁹See previous footnote.

the ungrammatical sequence of:

*had being writing

in all three functions of Table 117B.

- (3) It has already been indicated that both Arabic tenseemes kāna fā9il and kāmyaf9al are used to indicate simultaneity and duration in the past,¹⁰ as the formal and functional equivalents of the English tenseme was writing, respectively. They are also shown in Table 117B to indicate simultaneity and duration at pre-past. This will make it difficult for Arab learners both at the recognition and at the production levels to distinguish between:

- (a) I was reading when he arrived, and
- (b) I had been reading when he arrived.

(B) Negative-Interference Problems

- (1) The English tenseme had been writing will present problems to Arab learners of English. It has no formal equivalent in Arabic as Arabic does not tolerate the co-occurrence of earlier and simultaneous aspectual markers in any one of its tenseemes.

¹⁰ See Table 115B on page 808.

XI. Learning Problems

Inferred from Contrastive Tables

118A & B

(A) Positive-Interference Problems

- (1) In Function (1), viz. simultaneity in the future, Arab learners of English may transfer the formal features of sayakūnu yaf9al to English. By doing so, they will produce such sentences as the following:

*He will be travel tomorrow.

- (2) In Function (2), viz. frequency in the past, Arab learners of English may transfer the non-earlier aspect of sayakūnu yaf9al to the English tense will be writing and by doing so transform the latter to the ungrammatical sequence *will be write, as in the following:

*I shall be study my books every day next month.

- (3) In Function (3), viz. duration at pre-future, Arab learners of English may produce *will be write on false analogy with sayakūnu yaf9al and for the same reason just given in (1) above:

*I shall be write before you come tomorrow.

- (4) In Function (4), viz. duration at post-future, an Arab learner may produce *will be write on false analogy with sayakūnu yaf9al, and for the reason given in point (1) above, as in:

*We will be sing even after all the guests leave tomorrow.

- (5) On the analogy of sayakūnu yaf9al, *will be write may be used by Arab pupils of English to indicate the tentativeness of simultaneous present in Function (5). Thus they will produce:

*He will be study at this time.

(B) Negative-Interference Problems

- (1) The use of the word will in will be writing may present problems to beginners since English uses the word will to go with later aspect whereas Arabic usually uses the prefix /sa-/ as an indicator of later aspect.
- (2) Because non-extendable actions in Function (1), viz. simultaneous futurity, can only be indicated by sayaf9al (=will write) in Arabic, Arab learners of English will find it difficult to produce and to understand will be writing when used to indicate non-extendable actions as in the sentence:

I will be leaving tomorrow when the postman comes.

It will also be difficult for Arab students to distinguish temporally between the above sentence and:

I will leave tomorrow when the postman comes.

XII. Learning ProblemsInferred from Contrastive Tables119A & B(A) Positive-Interference Problems

(1) In Functions (1), (2), (4), (7), (9) and (10), Arab learners of English may transfer the non-earlier aspect of kāna sayakūnu yaf9al to English and use it instead of the simultaneous aspect of would be writing. This will produce the ungrammatical sequence:

*would be write

in all the above-mentioned functions in English.

(2) The use of kāna sayaf9al (=would write) in Functions (1), (2), (7), and (10) of specifically indicating non-extendable actions in Arabic would make it difficult for Arab learners of English both to use and to understand the tense would be writing when used for the indication of non-extendable actions in all the above-mentioned functions in English, as in:

He would be leaving tomorrow but for the strike.

If it had not been for her exams, she would be arriving next week.

(3) Arab learners of English may transfer the use of sayaf9al to indicate later-past in Function (1) to English. This will result in such erroneous sentences as:

*He said he will leave the next morning.

(4) Function (9) of kāna sayakūnu fā9il, viz.

hypothetical post-past, may be transferred to would be writing in English. This will result in the production of such erroneous English sentences as:

*He would be sleeping yesterday after his arrival but for the noise outside.

*She would be studying after supper last night but for her friend's unexpected visit.

(5) Function (10) of kāna sayakūnu fā9il and kāna sayakūnu yaf9al may be transferred to would be writing in English. This will lead to such ungrammatical sentences as:

*Layla would be working on her paper last week but for her illness.

(B) Negative-Learning Problems

(1) Function (3) of would be writing, viz. tentative future, may be problematic since it is missing among the functions of kāna sayakūnu fā9il and since Arabic uses different tenseemes for the indication of this function. The tentativeness of would be writing may also be missed by Arab learners of English when compared to the ambivalence of the Arabic sayaf9al. Arabs thus would be hard put to it to appreciate the subtle difference between:

I will go next week, and

I would be going next week (if I got a letter tomorrow).

- (2) Function (5) of would be writing, viz. tentative post-future, will also be difficult for the reason just given in (1) above. The sense of tentativeness will also be hard to grasp since it is missing in the Arabic functional equivalent sayaf9al.
- (3) Function (6) of would be writing, i.e. tentative pre-future, will also be difficult for the reason given in (1) above.
- (4) Function (8) of would be writing, i.e. past habit, will also be problematic for the reason given in (1) above.

XIII. Learning Problems

Inferred from Contrastive Tables

120A & B

(A) Positive-Interference Problems

- (1) The indication of hypothetical simultaneous present or recent past in Function (4) by sayakūnu fa9al may be carried over to its English formal equivalent will have written. This will result in such ungrammatical English sentences as:

*He will have left by now but for his sudden illness.

(B) Negative-Interference Problems

- (1) The modal will that co-occurs with later aspect in will have written may cause a learning problem for Arab beginners because Arabic mostly uses the prefix /sa-/, rather than a separate word; with later aspect.

XIV. Learning ProblemsInferred from Contrastive Tables121A & B(A) Positive-Interference Problems

- (1) When indicating Function (1), viz: time earlier than a point at later-past, Arab learners of English will tend to replace would have written by will have written when the former is used in subordinate clauses. This is because Arabic uses sayakūnu fa9al (=will have written) in this situation. Thus Arabs may produce such sentences in English as:

*He said that the train will have gone before she arrived at the station.

(B) Negative-Interference Problems

- (1) The use of would have written for the indication of Function (1) in subordinate clauses would be difficult for Arab learners of English since Arabic would not use kāna sayakūnu fa9al in such situations, as was shown in section (A) above.

XV. Learning ProblemsInferred from Contrastive Tables122A & B(A) Positive-Interference Problems

- (1) An Arab learner of English may transfer the terminal earlier aspect of sayakūnu fa9a1 to replace the terminal simultaneous aspect of will have been writing in English. This will give rise to such ungrammatical sentences as:

*He will have been written for three hours by six o'clock.

(B) Negative-Interference Problems

- (1) Arabic has no formal equivalent for the English tense will have been writing as no one tense is simultaneously marked both for earlier and for simultaneous aspects in Arabic. This makes it difficult for Arab learners of English both to produce correctly and to understand the English tense will have been writing.

- (2) The use of the modal will, which goes with later aspect in English, may prove difficult for beginning learners of English since Arabic usually uses a prefix, /sa-/, as a later-aspect marker.

XVI. Learning ProblemsInferred from Contrastive Tables123A & B(A) Positive-Interference Problems

- (1) In the indication of Functions (1), (3) and (4) of would have been writing, Arab learners of English may transfer the formal features of their Arabic functional equivalents kāna sayakūnu fā9il and kāna sayakūnu yaf9al to English. They may thus produce the following two ungrammatical sequences in English respectively:

*would have writing

*would have write

- (2) In the indication of Function (3), i.e. hypothetical past, Arab learners may erroneously produce:

*would have write

on the formal analogy with kāna sayakūnu yaf9al.

(B) Negative-Interference Problems

- (1) The English tenseme would have been writing will be problematic for Arab learners of English both to produce and to comprehend since it has no Arabic formal equivalent tenseme. Arabic tensemes do not combine three aspects in any of them. Moreover, Arabic does not combine earlier aspect with simultaneous aspect in any of its tensemes.

CHAPTER FOUR

SUMMARY AND CONCLUSIONS

(A) An Inventory of

General Potential Learning Problems

By comparing equivalent English and Arabic tenseemes separately, the detailed inventory of learning problems on pp. 856 - 882 has revealed a large number of potential learning problems in the English tense system for Arab learners of English. However, it may be noticed that throughout the detailed inventory the problems involved in the learning of one tenseme in English are similar to, or even the same, as the problems encountered in the learning of other English tenseemes. Useful generalizations are also lost in the detailed inventory as a result of narrowly concentrating on too specific and individual problems. Redundancy of problems could be removed and broader patterns of difficulty could be set up by regrouping the problems listed in the above-mentioned detailed inventory into larger and more comprehensive patterns. Consequently, the eighty-nine learning problems of the detailed inventory have been combined into twenty general problems in the following summary inventory of learning problems. No full explanation of the sources of problems is included in the general inventory since this has already been done in the detailed inventory. The focus here is on

the general problems themselves rather than on any specific details. Finally, no systematic attempt is made here to grade the hierarchy of difficulty of learning problems since it is felt that this would involve many pedagogical and psychological factors that are beyond the scope of contrastive linguistics as such. Roughly, however, it is towards the end of the following inventory that the more complicated problems appear:

1. Problem (I.A.1)¹ shows that Arab beginners of English may erroneously insert subject pronouns between noun subjects and their verbs in English sentences.
2. Problem (I.A.2) indicates that Arab learners may erroneously produce English sentences in which the finite verbs precede rather than follow their subjects.
3. From Problem (I.A.5) it is shown that Arab beginners in English may erroneously negate past tenseemes in English by only inserting not before the non-past forms of these tenseemes.

¹The Roman numerals in the parentheses that indicate a given problem refer to the section of the detailed inventory in which that problem occurs. The letter A or B indicates whether the problem is in sub-section A or B of that section, respectively. The terminal digit refers to the sequence of the problem among those of sub-section A or B in that section of the detailed inventory.

4. From Problems (V.B.1), (XIII.B.3) and (XV.B.3), it appears that the use of the modal will or shall of will write and will have written may present problems to beginners as, more often than not, they will tend to omit them and may thus produce such sentences in English as:

* If he comes tomorrow, I meet him.

* By next week, I have finished my work.

5. From Problems (III.B.5), (VII.B.4), (VIII.B.1) and (IX.B.2), it can be seen that beginners may find it difficult to use correctly has, is, am, and was, as opposed to, have, are, and were when used both as auxiliary and as full verbs.

6. The use of the third-person singular's' in English is shown by Problem (I.B.1) to be problematic. Arab learners will tend to miss it when it is required in English sentences.

7. Parallel to (6) above it may be deduced that Arab beginners will tend to miss the present-tense form of verb to be when used as a copula in English sentences and may thus produce such sentences as:

* He big.

* My name Nagham.

8. From Problems (I.A.3), (VII.A.1, 3, 4, 5, 6), and (VII.B.1, 2, 3), it can be seen that the use of the English tense is writing will be difficult for Arab

learners of English especially when used to indicate actions/states at simultaneous and contemporaneous present or to refer to a planned future activity.

19. From Problems (II.A.2), (IV.A.1, 2, 3, 4), (VIII.A.2, 3, 4), (X.A.1, 2) and (X.B.1), it can be said that Arab learners of English may find it difficult to use the earlier-past tense had written and the simultaneous earlier-past had been writing. This is especially so when these tenseemes are used to refer to past hypothetical actions/states in conditional clauses.
10. Problems (I.A.3, 4, 5), (VII.A.1, 3) and (IX.A.1) show that Arab learners of English are liable to find some difficulty in using the English basic-present tense writes correctly. They will especially tend to use this tenseeme erroneously to indicate an activity at simultaneous present or past activity still going on at simultaneous present.
11. From Problems (X.A.3) and (X.B.1), on the one hand, and all problems of sub-section (XV), on the other hand, it may be deduced that Arab learners of English will find it difficult to distinguish both at the receptive and at the productive levels between was writing and had been writing as well as between will have written and will have been writing, respectively.
12. Problems (II.A.4) and (VIII.A.1, 2, 3) all show that Arab learners of English may find some difficulty in

- correctly using the simultaneous-past tense was writing in English. (For specific difficulties see the above-mentioned problems in the detailed inventory).
13. From all the problems listed in sub-section (VI) in the detailed inventory, it becomes clear that Arab learners of English will tend to misuse the English later-past tense would write. The use of would write to indicate tentative futurity and past habits will be particularly difficult both to understand and to produce.
 14. From problems of sub-sections (XI) and (XII) of the detailed inventory of learning problems, it can be seen that the two English tenses will be writing and would be writing will be difficult for Arab learners both to produce and to comprehend when used to indicate simultaneous futurity for non-extendable actions (see Problems (XI.B.2) and (XII.A.2) in particular).
 15. From Problems (II.A.3) and (II.B.1), it may be seen that the use of the basic-past tense wrote to indicate a habit or a frequent action in the past will be problematic for Arab learners of English.
 16. From Problems (I.A.4), (II.A.1), (IX.A.1) and (IX.B.1), it can be seen that the use of the two English tenses has been writing and has written will be problematic, especially when these tenses are used to indicate an action/state which started in the past and has continued up to simultaneous present.

17. Problem (II.B.2) suggests that Arab learners of English will find it difficult to grasp the semantic difference between pairs of English conditional clauses like:
- (a) If he comes tomorrow, ...
 - (b) If he came tomorrow, ...
18. From Problems (III.A.1, 2, 3) and (III.B.1, 2, 3, 4), it may be said that the correct use of the earlier-present tense has written will be difficult for Arab learners of English, especially when used to indicate an unspecific past time or past frequency.
19. From Problems (VI.A.1, 3, 4, 6, 7), (XII.A.4, 5), and all the problems of sub-section (XVI), it may be seen that both English tense would have written and would have been writing will be difficult for Arab learners of English, especially when used to indicate hypothetical actions/states at present or at recent past.
20. From Problems (V.A.2), (VI.A.8), (VI.B.1), (VII.A.3), (XIV.A.1) and (XIV.B.1), it may be generalized that Arab learners of English will find difficult most cases of back-shifting in English tenses, especially those that occur in subordinate clauses. Reported speech in English will consequently present problems to Arab learners. The following underlined tenses are examples of such difficult back-shiftings:
- (a) He said he would come.
 - (b) I didn't know you were here.

(c) He left early as he wanted to travel the next morning.

(d) You didn't tell me what your name was.

(e) I wish I was going there now.

(f) I asked him how the present situation was.

B. Conclusions

1. The foregoing analysis and comparison of tenseemes in English and Arabic reveal various important aspects of the tense system of both languages. A basic phenomenon is the intricate and complex interrelationships between the formal and the temporal in the two systems. Two tenseemes may be formally similar, yet they are used in the two languages to cover different ranges of temporal scopes and indicate different functions. Conversely, it has been seen that formally different tenseemes may temporally correspond at various points in their functional distribution in the two languages. It may thus be concluded that, like lexical items, the grammatical features of tenseemes can have more than one meaning each. It is therefore important to remember when teaching the tense system of English to Arab students that all senses and connotations of a certain tenseeme have ultimately to be taught. No one function of a given tenseeme can be said to have been learned until its

relations with other functions within the same tense have been defined. Language is not a collection of separate and independent forms and functions; it is rather a unitary whole of mutually interdependent parts.

- 2..The contrastive analysis conducted in this chapter has revealed specific differences in the tense systems of English and Arabic against a broad background of similarity. It is worthwhile to notice the considerable structural similarities between the two tense systems. These similarities may in fact be used as starting points for the teaching of English as a foreign language in the Arab world. This will be in line with the principles of educational psychology which underline the necessity of starting with the familiar when teaching a new linguistic item, concept or function.
3. Since, as has been argued earlier, the degree of difficulty of learning a foreign language depends on the amount and type of differences between the structures of that language and that of the native language of the learners, it may be concluded that some languages will be harder to learn than others by the speakers of a given native language. The findings of contrastive linguistics may thus be made use of to help towards selecting what foreign languages(s) is/are to be taught to certain people.
- 4.. The findings of any contrastive analysis are not self-applying. It must be realized that the relationship

between linguistic theory and language teaching is far from being a direct one. Moreover, it should never be claimed that contrastive linguistics can play more than a partial, though certainly a basic and crucial, role in language-teaching. Contrastivists, psychologists, textbook writers, teachers, and students all play complementary roles in solving the problems of the language-learning process.

5. The list of learning problems arrived at by contrastive linguistics must not be taken to represent anything more than a list of potential problems that are likely to appear in the majority of cases with a number of learners larger than what could have been brought about by mere chance. It is however important to remember in this respect that it is not ^{the} prediction, but rather the explanation, of the existence of certain problems, that is the main objective and value of contrastive linguistics.
6. Similarly, not all learners of a given target language will find the same amount of difficulty in learning a particular structure of that language. Individual differences as well as various other pedagogical and psychological factors all contribute towards varying degrees of difficulty among the learners of a foreign language.

(C) Suggestions

1. An interesting and relevant question that may be asked in relation to the foregoing contrastive analysis is: At what level will Arab learners face the above-mentioned potential learning problems? The answer to this question is simply: at all levels. This is so since the learning problems likely to occur are of different levels of complexity themselves. Consequently some problems of the English tense system will be overcome after a short period of learning the language whereas, on the other hand, other problems may linger on up to a fairly advanced stage of learning English.

A question somewhat related to the above may be: Is the system of Modern Literary Arabic of primary- and intermediate-school pupils of English developed and established enough to exercise influence on the learning of English? It is important to remember here that linguistic diglossia is characteristic all over the Arab world. The teaching of English as a foreign language usually begins in Iraq, for example, at the age of eleven when pupils will have been learning Modern Literary Arabic systematically, i.e. at schools, for four years only and will not yet have attained sufficient control of the language system at the production level. The above question becomes even more relevant when we remember that

the data on which the description of the Arabic tense system and its comparison with the English are based are drawn from Arab students at the University level.

In reply to the above queries, however, it is necessary to explain that university students, rather than less advanced subjects, have been chosen since at the university level students will have a better performance control on the tense system of Literary Arabic. In other words, such subjects are better able to produce grammatically correct Arabic sentences. As far as competence is concerned, and this is what basically matters in the native language, it is assumed here that competence in Literary Arabic is established at a much earlier stage. Children become subjected to Modern Literary Arabic long before the school-age through various media, such as radio, television, etc. Moreover, it is believed that there is enough similarity between the tense systems of Modern Literary Arabic and present-day Spoken Arabic to make them give rise to generally similar problems of interference when learning English.² It must be conceded however that an analysis of Spoken

²For an example in this respect, see the contrastive study of Spoken Iraqi Arabic and Modern Literary Arabic carried out by Salih J. Altoma in his book The Problem of Diglossia in Arabic (Cambridge, Mass.: Harvard University Press, 1969).

Arabic would be necessary to obtain a more perceptive and comprehensive contrastive analysis. It is therefore suggested here that dialectal contrastive studies be carried out between varieties of Arabic spoken in different Arab countries. Both bilateral comparisons, viz. between a given dialect of Spoken Arabic and English, as well as trilateral comparisons, viz. comparing a given dialect of Spoken Arabic with the tense systems of both English and Modern Literary Arabic, will be valuable. Interdialectal contrastive analyses, i.e. within the dialects of Spoken Arabic themselves, will also be useful to reveal what is common among them. It should be remembered that whereas Arabic dialects are diverse and numerous, Modern Literary Arabic is standard and uniform throughout the Arab world, especially in structural aspects. It is thus practically useful to capitalize on this uniformity of Modern Literary Arabic since by contrasting it with English it becomes possible to produce textbooks and suggest teaching methods that could be usefully applicable in all Arab countries. It is hoped that this role of Modern Literary Arabic as a unifying factor in the Arab world will urge linguists, Arabs and non-Arabs alike, to pay more attention to its description. It is necessary to fill the present gap in Arabic linguistics which has resulted from the scarcity of modern linguistic analyses of the structure of Modern Literary Arabic, both

written and spoken, in contrast to the relatively large number of studies on various Arabic colloquials.³

2. The list of learning problems deduced from the contrastive analysis carried out in the present study is certainly significant for teaching, testing, and further research. Yet, as has already been said above, these problems are only to be considered as likely areas of potential trouble. What is needed is further validation by carefully constructed tests and by comparison with actual errors of learners. It is therefore suggested that further tests centred around both the detailed and the general lists of potential problems arrived at above be conducted to complement the results of the present study.

It is expected that the results of such tests as are recommended above would show that certain potential problems are in reality less problematic than has been suggested here. This may be the case, for example, of the problematic use of is writing for the indication of simultaneous present. The ability to demonstrate this function of is writing situationally in the classroom makes both the teaching and learning of is writing in

³As an example, it may be enough to mention that the Richard Slade Harrel Arabic Series of Georgetown University in Washington has thus far published studies on Iraqi, Moroccan, Egyptian, and Syrian varieties of Spoken Arabic but none on Modern Literary Arabic.

this function fairly simple and straight-forward. This helps to minimize the degree of the learning problem involved in this case. The results of the validation tests suggested above may reveal, on the other hand, that some other features of the English tense system which are not mentioned in the two lists of learning problems will in fact prove to be problematic for a large number of Arab learners of English. This phenomenon may be attributed to limitations of data used in the present study or to the possibility that some problems may not have been adequately analyzed here.

3. No teaching materials have been suggested in the present study to remedy the errors that may arise out of the interference of Arabic in the learning of English. This is left for textbook writers since many non-linguistic factors, such as psychological and cultural, have to be taken into consideration in the process. It is believed, however, that the identification and interpretation of errors carried out in this study is a fundamental and crucial step towards a remedy. Nevertheless, it might be useful to try to outline some general guiding principles of a teaching strategy that can make use of the findings of contrastive analyses in language teaching. The following are consequently suggested:
 - (a) For teaching purposes, it has been pointed out

that it would be useful to draw a distinction between contrast and difference.⁴ In contrastive features, interference from Arabic has to be combatted when learning English tenseemes that have formal equivalents in Arabic but are distributed differently at certain points. On the other hand, tenseemes that are formally different in English, i.e. those that have no formal equivalents in Arabic, have to be taught as new items of knowledge since native language interference would be little or nil in such cases. Features of English and Arabic contrastive tenseemes may therefore prove more difficult to teach and learn since they would involve both learning new linguistic habits and checking interference from habits of the native language. It is thus necessary in teaching to emphasize points of contrast as well as to give due attention to points of difference between the tense systems of English and Arabic.

- (b) As far as the teaching technique is concerned, it generally depends on the level one is teaching at. At an advanced level, say with university students, it might be worthwhile to point out the fundamental

⁴See Wilga M. Rivers, "Contrastive Linguistics in Textbook and Classroom," 19th Annual Round Table, p.151

similarity of the deep structures of contrastive tenseemes in English and Arabic and then proceed to show the different transformational rules that produce the two contrastive surface structures of those tenseemes. At an elementary level of learning, on the other hand, one could justifiably make use of translation to hold comparisons between a given tenseemes or a given function in English and its formal or functional equivalent in Arabic. This use of translation could serve as a valuable contrastive drill for teaching points of difference and contrast between the two tense systems. This use of contrastive translation drills may be followed by contrastive drills entirely within the tenseemes of English. Memorization and dramatization of dialogues in English that contain some learning problems for Arab students are also recommended to follow translation drills. Ultimately, slightly-controlled conversation sessions, skilfully directed by the teacher towards practising problematic English tenseemes and functions are of great value at later stages.

- (c) With its emphasis on the major role played by interference from the native language in learning a foreign language, contrastive linguistics is not incompatible with the basic tenet of the direct method for teaching..

foreign languages. The most efficient approach to combatting interference from the native languages is to give learners as much opportunity to practise the target language as possible. It is still to be remembered, however, that a hundred-per-cent use of the target language, especially at early and intermediate stages, is neither advisable nor is it in fact practically feasible in all teaching situations.

- (d) In general, it is felt here that language teaching should not be exclusively bound to any linguistic theory. An eclectic approach to the various types of grammatical analyses is therefore suggested. Different learning problems and different situations may require different teaching approaches. Consequently, it is believed that the translation approach, the structural approach, and the transformational approach may all be fruitfully made use of in different learning situations.

APPENDIX B

THE WRITTEN RESPONSES TO TEST ONE

(ARABIC)¹

I. يكتب²

- ١- . . . الطالب الدرس الان .
- ٢- . . . الطالب الدرس عند رجوعه من المدرسة .
- ٣- . . . التلميذ الرسالة قبل ان يسافر الى اهله .
- ٤- . . . محمد درسه الان .
- ٥- زيد . . . الان .
- ٦- . . . محمد الدرس في الصباح .
- ٧- هو . . . الان .
- ٨- . . . محمد الدرس الان .
- ٩- . . . اخي ليلا .
- ١٠- . . . حسين الرسالة صباحا .
- ١١- علي . . . الدرس الان .

¹Sentences which do not have temporal adverbials or which use tenseemes other than the one asked for in the Test, are not reported in this Appendix and their numbers are consequently omitted above.

²Instead of rewriting the same tenseeme in every sentence above, three subsequent dots are used to represent the tenseeme in question. When a part of a sentence is interposed after the initial component of a verbal phrase, the initial component of that broken verbal phrase is represented by three dots first and the other component(s) of the verbal phrase tenseeme in question is/are then represented by other three dots after the intervening sentence part.

- ١٧- . . . الطالب درسه الان .
- ١٨- . . . علي الدرس الان .
- ٢١- . . . الطالب الان .
- ٢٣- . . . علي في هذه اللحظة .
- ٢٤- . . . الشمر منذ سنين .
- ٢٥- . . . زيد الرسالة مباحا .
- ٢٦- . . . الطالب الموضع عمرا .
- ٢٧- . . . الناص اربع قصص سنويا .
- ٢٨- . . . الاديب قصة الان .
- ٢٩- . . . محمد الدرس مباحا .
- ٣٠- . . . الولد الدرس مباحا .
- ٣١- . . . محمد الدرس الان .
- ٣٢- . . . زيد رسالة مساء .
- ٣٤- . . . الشاعر قصيدته مباحا .
- ٣٦- . . . الدرس غدا .
- ٣٨- . . . الطالب الدرس الان .
- ٣٩- . . . احمد دروسه في السباح .
- ٤٠- . . . احمد الدرس الان .
- ٤١- . . . علي درسه الان .
- ٤٢- . . . المدرس الحاضرة الان .
- ٤٣- . . . احمد التقارير مباحا .
- ٤٤- . . . ابي الرسالة غدا .
- ٤٦- . . . الطالب التמידة الان .
- ٤٨- . . . محمد دروسه مباحا .

- ٤٩- . . . زيد الدرس في المباح .
- ٥٠- . . . المجتهد درسه الان .
- ٥١- . . . الطالب الدرس الان .
- ٥٢- . . . علي جيداً وقت الراحة .
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١٢- . . . علي . . . قبل ان يسافر *

١٥- . . . حسين . . . الدرس عندما رايته بالامس *

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٤٨- . . . الطالب . . . الرسالة قبل ان يسافر *

٥٥- . . . خالد . . . في الصباح لولا سيرة امس *

٥٨- زكي . . . الان لولا مرور صديقه عليه *

٥٩- . . . دريد . . . شعرا " الان لولا مرغه المفاجي *

٦٠- . . . صباحا " لولا دخول سيده مبكرا *

٦١- . . . الان لولا استلامه تلك المخابرة في الصباح *

٦٢- . . . امس لولا زعله مع صديقه *

٦٣- بعد ان تركناه . . . رسالة الى والده *

٦٤- . . . الكتاب قبل سفره لولم تحل به نوبة قلبية *

٦٥- . . . طريف . . . رسالته بعد زهاب صاحبه *

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- ٦٧- اطروحته بعد التخرج لولا الاضطراب المحي الذي امامه .
- ٦٨- فرضه في المساء لولم يغالبه النعاس .
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- ٢- في الصباح .
- ٣- الطالب قبل ان اذهب لتوديعه .
- ٥- الليلة الى القاهرة .
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- ١٢- محمد الان .
- ١٣- عندما ازوره في العاشرة صباحا
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- ٢٥- عمرو قد بالقطار صباحا .
- ٢٧- الان علي قد الى بغداد .
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- ٣١- في المساء . . . زيد قد . . .
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- ٣٩- صباحاً . . . احمد قد . . . الى بغداد .
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- ٤٩- . . . خالد بعد التخرج . . . الى لندن .
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- ٣٦- في الصباح . . .
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- ٤٦- ماجدة . . . حتى الساعة العاشرة .
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- ٥٢- الفتاة . . . ليلاً .
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- ٥٧- . . . الطفلة . . . الان فلا توقظها .
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- ٥٩- . . . هند . . . الى الساعة العاشرة بعد عمل مرهق طوال النهار .
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- ٦٣- من الأفضل ألا تذهب لزيارتها بعد الظهر لأنها . . .
- ٦٥- طفلي . . . عند وصولي .
- ٦٦- من الأفضل عدم الاتصال بها ظهراً لأنها . . .
- ٦٨- . . . في الصباح لذا فلن أزورها .
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- ١٥- . . . زيد . . . صباحا .
- ١٧- . . . بعد وصوله لولا تأخره .
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- ٣٧- . . . الولد . . . مساء .
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- ٥٥- . . . طفلها . . . الان لولا صوت احدثه والده .
- ٥٨- اخي . . . الان لولا الضجة التي ايقظته .
- ٥٩- . . . فريد . . . الان لولا زيارة صديقه المفاجئة .
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- ٦٢- . . . ليلة امس لولا الحفل المصاحب الذي كان يجوار منزله .
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- ٦٤- . . . الان لولا انفجار القنبلة في الحي المجاور .

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- ٦٩- . . . الطفل . . . الان لولا النجدة التي أحدثتها بوق السيارة .

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- ٥- الدرس . . . الان .
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- ٨- الدرس بعد قراءته . . .
- ٩- . . . بعد الشرح .
- ١٠- الدرس . . . غدا .
- ١١- الدرس . . . بعد قليل .
- ١٢- . . . الدرس . . . الان .
- ١٣- عندما تعيد قراءة الدرس . . .
- ١٤- شرح الدرس . . . في الصباح .
- ١٥- . . . الدرس . . . في الصباح .
- ١٦- الدرس . . . بعد قليل .
- ١٧- . . . الدرس . . . في الصباح .
- ١٨- . . . سفرك في الصباح . . .
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- ٢٨- الدرس . . . الان .
- ٢٩- . . . الدرس . . . في الساعة العاشرة .
- ٣٠- . . . الدرس . . . في الصباح .
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- ٣٩- . . . بعد التخرج .
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- ٤١- . . . الدرس . . . بعد قراءته في الصباح .
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- ٤٥- . . . الدرس . . . في الصباح .
- ٤٦- . . . الدرس . . . عندما تكون الدراسة في الصباح الباكر .
- ٤٧- . . . الدرس . . . في الصباح .
- ٤٨- . . . الدرس . . . في الصباح .
- ٤٩- . . . الدرس . . . الان .
- ٥٠- . . . الدرس . . . في الصباح .
- ٥٢- الاعلان . . . لى الجميع حين يقرأ .

- ٥٣- . . . الدرس . . . بعد المناقشة .
- ٥٤- . . . الموضوع . . . الان .
- ٥٥- . . . الامر . . . بعد كشف خفاياه صباحا .
- ٥٦- . . . الدرس . . . اذا شرحه الاستاذ غدا .
- ٥٧- . . . الدرس . . . بعد ان يشرحه الاستاذ عند الظهر .
- ٥٨- الدرس . . . عندما يشرحه المدرس غدا .
- ٥٩- . . . موضوع المناقشة . . . عند الجميع بعد غد .
- ٦٠- . . . الدرس . . . غدا .
- ٦١- . . . الدرس . . . بعد ان يشرحه الاستاذ .
- ٦٢- . . . الدرس . . . بعد شرح المدرس .
- ٦٣- . . . الدرس . . . غدا بعد شرح المعلم .
- ٦٤- . . . الدرس . . . بعد درسه مع الاستاذ مرارا .
- ٦٧- هل . . . الدرس . . . بعد شرحه مرة ثانية ؟
- ٦٨- . . . الدرس . . . عندما يفسره الاستاذ .
- ٦٩- . . . الدرس . . . عندما اقرأه مرة ثانية .
- ٧٠- بعد ان يشرح الاستاذ الدرس . . .

XX. كان سيكون من زوم

- ١- . . . المجرم . . . سابقا .
- ٢- . . . سابقا .
- ٨- . . . في المعركة الان لولا خداعه .
- ٩- . . . عند المعركة .
- ١٠- . . . سابقا .

- ١٥- . . . الجيش . . . في الصباح .
- ١٧- . . . العدو . . . سابقا .
- ٢٢- لولا زيادة قوة العدو . . . في المعركة الان .
- ٢٧- لولا عزمه . . . البطل عندنا . . . في جولته الاخيرة بالاس .
- ٣٢- . . . الولد الجبان . . . وقت الحرب .
- ٣٣- العدو . . . منذ زمن بعيد لولا منعنا المعنوي .
- ٣٧- . . . القائد . . . مساهمة .
- ٣٨- . . . الطالب . . . بعد التخرج .
- ٤٣- . . . بعد التخرج لولا شجاعته .
- ٤٨- . . . البطل . . . سابقا .
- ٥٥- . . . لولا مساعدة اخوانه له حينذاك .
- ٥٦- كانت فرنسا ستكون مهزومة لولا تدخل امريكا في الحرب العالمية الثانية .
- ٥٨- . . . الطفل . . . لولا نصرة اخيه له بالاس .
- ٦٠- . . . لولا تدخل الشرطة البارحة .
- ٦١- . . . لولا تدخل اخيه بال اللحظة الاخيرة .
- ٦٢- . . . لولا تدخل اصحابه في آخر لحظة .
- ٦٣- . . . الان لولا مساعدة صديقه .
- ٦٤- . . . بالاس لولا مساعدة الحظ له .
- ٦٥- لولا المساعدة الخارجية . . . هذا المساء .
- ٦٧- لولا مساعدتي اياه . . . الان .
- ٦٨- . . . بعد المعركة لولا مناصرة زملائه له .
- ٦٩- لولا لعبة الحظ . . . زيد . . . الان .
- ٧٠- . . . في الاس عندما اصيب في رجله .

APPENDIX C

FORMATS OF THE TWO ARABIC EXPERIMENTAL TESTS

Test. One

استعمل كلاً من الصيغ الفعلية التالية في جملة من عندك على شرط أن تحوى كل جملة من جملة على واحد من الظروف الزمنية على الأقل . لاحظ أنه في حالة الصيغ الفعلية المركبة ادناه ، أي التي تحوى أكثر من فعل واحد ، يمكنك أن تفعل بين أجزاء الصيغة المركبة في جملة . فمثلاً تستطيع أن تضع الفاعل بعد سيكون وذلك تفصلها عن قرأ في سيكون يقرأ ادناه ، وهكذا مع بقية الصيغ المركبة الأخرى . (الظروف الزمنية مثل : في الصباح ، عندما رايته بالأمس ، قبل أن يسافر ، بعد التخرج ، الآن ، صباحاً ، في الساعة العاشرة ، سابقاً ، الخ . . .)

- | | |
|--------------------|--------------------|
| ١- كتب | ١١- كان يكتب |
| ٢- سيكون يقرأ | ١٢- تكون ذهبت |
| ٣- ستسافر | ١٣- كانت ستسافر |
| ٤- كان سيكون سافر | ١٤- سيكون سافر |
| ٥- يكتب | ١٥- كان (قد) كتب |
| ٦- كان ماشياً | ١٦- كانت مكسورة |
| ٧- ستكون نائمة | ١٧- سيكون مغفوم |
| ٨- يكون يكتب | ١٨- كان سيكون نائم |
| ٩- كان سيكون مغفوم | ١٩- كان سيكون يكتب |
| ١٠- يكون نائم | ٢٠- تكون مهجورة |

Test Two

ضع الافعال داخل الاقواس في الصيغ التي تجعلها تعبر عن الزمن الذي تشير اليه الظروف الزمنية التي تحتها خط في كل جملة من الجمل التالية :

(قبل الاجابة لاحظ ما يلي بكل عناية رجا " :

١- الافعال داخل الاقواس في كل جملة من الجمل ادناه موجودة في صيغة الماضي للشخص الثالث المفرد المذكور . وعند تصحيح الافعال بامكانك ان تحول الفعل حسب متطلبات كل جملة الى اية صيغة فعلية اخرى ، مثل : يكتب ، كان يكتب ، كان (قد) كتب ، سيكون سافر ، سوف يسافر ، كان مسافر - كان سيكون (قد) سافر ، يكون مفتوح ، . . . الخ . وكذلك بامكانك ان تضع الفعل في حالة المخاطب او المتكلم ، وفي المفرد او المثنى او الجمع ، وكذلك في المؤنث او المذكور .

ب- تستطيع ان تقدم او تؤخر في تسلسل الكلمات في كل من الجمل ادناه اذا ما دعت الحاجة لذلك .

- ١- انا (قرأ) هذا الكتاب في الماضي .
- ٢- ابي (ذهب) الى السينما كل اسبوع عندما كان شابا .
- ٣- انه (جلس) بالحديقة عندما مررت على داره بالامس .
- ٤- قال بانه (سافر) بعد تخرجه لولا وفاة والده .
- ٥- نحن (سمع) هذه الاغنية كثيرا هذه الايام .
- ٦- انا (شاهد) هذا الفيلم مرتين قبل الان .
- ٧- الاطفال (كبر) بسرعة عادة .
- ٨- اذا (سافر) سليم الى بغداد بالمستقبل ، فانه سيزور المتحف البغدادي حتما .
- ٩- (سافر) سليم الى بغداد فدا .
- ١٠- لو (درس) جيدا في العام الماضي لما رسب .

١١- عندما تركته بالامس، (كتب) رسالة الى والده بعد قليل . ولكن يبدو انه قد غير رأيه بعد مغادرتي .

١٢- انا (كتب) رسالة عندما انقطع التيار الكهربائي في الليلة الماضية .

١٣- لم (سافر) سليم الى بغداد سابقاً .

١٤- هو لا يزال (ذهب) الى السينما مرة واحدة كل شهر .

١٥- اعتقد اننا لن نجد بالبيت عند زهابنا غداً لانه (قرأ) في المكتبة حينذاك .

١٦- انا (سمع) هذه الاغنية عدة مرات من قبل .

١٧- (درس) سليم في المكتبة طوال يوم امس .

١٨- هو (سافر) في اية لحظة بعد الان .

١٩- (سافر) اخي الى بغداد قبل سفرى اليها في الاسبوع الماضي .

٢٠- قال بان المحاضرة (انتهى) الان لولا اسئلة الحاضرين الكثيرة .

٢١- زكي (ذهب) الى السينما معى بعد نهاية الامتحان غداً .

٢٢- انا (زار) المعرض يوماً ما بالاسبوع القادم .

٢٣- (انهى) سليم الكتاب قبل الساعة الخامسة غداً .

٢٤- سليم (قرأ) بالمكتبة طوال يوم الغد .

٢٥- هي (كتب) رسالة الى امها الان .

٢٦- (كبر) هذه الشجرة كثيراً في السنة الماضية .

٢٧- (مرض) سليم طوال الاسبوع الماضي .

٢٨- سليم (قرأ) كثيراً هذه الايام .

٢٩- (سافر) نهيل الى لندن يوم امس .

٣٠- ان الباب (كسر) قبل وصولى الى الدار بالامس .

APPENDIX D

ARABIC TRANSLATION OF ENGLISH SENTENCES

IN THE GENERAL INVENTORY OF TENSEMES*

I. BASIC PRESENT : WRITES

(A) Systematic Functions

- (1.1) تشغل الساعة بانتظاما الآن .
- (1.2) إنها تشغل الآن .
- (1.3) إنه يكاد ينتهي الآن .
- (2.1) إنه يعمل بجد هذه الأيام .
- (2.2) إنه لا يعمل بجد هذه الأيام .
- (3.1) يذهب إلى عمله بالقطار كل صباح .
- (3.2) في عطلة نهاية الأسبوع يذهب مع الكلب إلى كل مكان .
- (3.3) هي تذهب للرقص كل سبت .
- (3.4) هو يذهب إلى الاتحاد كل يوم .
- (3.5) هو يأتي إلى هنا دائما .
- (4.1) تشغل الساعة طول النهار إذا ما ملتها بالصباح .
- (4.2) يسير النور أسرع من الصوت .

(B) Non-Systematic Functions

- (1.1) هو يذهب إلى البيت غدا .

*The sentences are given here under the different headings of the English tenseemes in the General Inventory of Chapter Six in Part Two. The number opposite each Arabic translation consists of two parts: the first represents the number of the function under which the sentence appears in the English General Inventory, whereas the second represents the sequence of that sentence among other sentences of a given function in the General Inventory.

- (1.2) هو بذ هـ ب الى لندن عدا "ملا".
- (1.3) أنا در في الساعة الثانية .
- (1.4) أنا در عدا " .
- (2.1) إن بذ هـ ب قبل أن أذ هـ ب سيكون الأول .
- (2.2) جون بنتهي ب قبل حزيران .
- (3.1) إن بذ هـ ب بعد أن أنا ب عندئذ سنبقى حتى الصباح .
- (3.2) هو بذ هـ ب الى هناك دائماً بعد أن أنا ب .

II. BASIC PAST : WROTE

(A) Systematic Functions

- (1.1) عندما عدت من المكتبة في الليلة الماضية تشتيت مع روفر .
- (1.2) بالأمس ذهبت الى المدينة .
- (1.3) عندما وصل ، خرجنا .
- (1.4) ذهبت اليوم .
- (1.5) سأدر منذ ساعة بالضبط .
- (2.1) شاهدت هذا الفيلم من قبل .
- (2.2) شاهدت هذا الفيلم يوماً ما .
- (3.1) كلما وملنا كننا نذ هـ ب الى السينما .
- (3.2) قالها ما كانت نذ هـ ب الى العيادة في الساعة .
- (3.3) كننا عادة نذ هـ ب بالباص .
- (3.4) كننا دائماً نذ هـ ب بالباص .
- (4.1) قيراً طوال ذلك الوقت .
- (4.2) قيراً طوال النهار .
- (4.3) قيراً لفترة طويلة .
- (4.4) قيراً طوال يوم أمس .

(B) Non-Systematic Functions

- (1.1) • ذهبت الى البيت بعد ان اخذت سيارتي من الكراج .
- (1.2) • فرهد رجع الى الحانة بعد ان وصلنا الى البيت .
- (1.3) • بعد ان تركت الناضرة ذهبت لتناول الغداء .
- (1.4) • لاقيته ثانية بعد ساعتين .
- (1.5) • لاقيته بعد ان افترقنا بساعتين .
- (2.1) • عادوا قبل ان تهب العاصفة .
- (2.2) • ذهبت للتسوق قبل أن يصل .
- (2.3) • هي صادرت قبل أن يصل جون .
- (2.4) • كلمته قبل ما لاقيتك .
- (3.1) • إذا ذهب غداً فلن يكون هناك وقت كاف .

III. EARLIER PRESENT : HAS WRITTEN(A) Systematic Functions

- (1.1) • ذهبتنا مكرين لتجنب الازدحام .
- (1.2) • ذهبت الى السينما من قبل .
- (1.3) • شاهدت هذا الفيلم من قبل .
- (2.1) • إنهم ذهبوا الآن .
- (2.2) • إذا ما أخطت اليوم فعسى أن أصيب غداً .
- (2.3) • شاهدت هذا الفيلم الآن فقط .
- (3.1) • كانوا يذهبون بانتظام كل مساء .
- (3.2) • كنت أسهر في نفس الطريق صباحاً لحوالي العام .
- (3.3) • كنت أذهب هناك غالباً .
- (3.4) • كان يأتي الى هنا دائماً .

(B) Non-Systematic Functions

- (1.1) • فادروا بعد ان انتظروا منذ الساعة الثانية عشرة .
- (1.2) • بعد أن ملت طول النهار ذهبت الى البيت .
- (2.1) • إن أكن ذهبت عندما تصل أرجو أن تتبعني .
- (2.2) • عدا عندما أكون ذهبت الى البيت ستجد رسالة في انتظارك .
- (3.1) • هو تقريباً انتهى الان .

IV. EARLIER PAST : HAD WRITTEN(A) Systematic Functions

- (1.1) • عندما وصل كنت أنهيت عملي .
- (1.2) • عندما دق الجرس كان كل واحد قد أنهى التمرين .
- (1.3) • كانت السيدة جونز قد أنهت عملها قبل أن يهرود الأطفال من المدرسة .
- (1.4) • كانت اللعبة قد انتهت قبل الموعد .
- (1.5) • كينا قد انتهينا لتونا عندما بدأت السماء تمطر .
- (1.6) • كان قد أنهى عمله قبل سنتين .
- (1.7) • في صباح يوم الثلاثاء كان قد أنهى واجبه .
- (1.8) • كانت قد غادرت قبل ذلك الوقت .
- (1.9) • كانت قد غادرت قبل أن يتحرك القطار .
- (1.10) • كانت قد غادرت قبل ذلك .

(B) Non-Systematic Functions

- (1.1) • لو كنت انتهيت مبكراً كنت ذهبت الى السينما .
- (1.2) • لو كنت انتهيت ذلك هذا الصباح كنت ذهبت الى البيت الآن .
- (1.3) • لو كنا انتهينا بالأمس لكنا عملنا شيئاً آخر اليوم .

V. LATER PRESENT : WILL WRITE(A) Systematic Functions

- (1.1) سيتتبي هذا البرنامج في خلال نصف ساعة .
- (1.2) سأنتهي غدا .
- (1.3) سأنهي هذا الكتاب هذه الليلة .
- (1.4) سستنهي هذا العام .
- (1.5) سأغادر في منتصف النهار .
- (1.6) سأغادر في الصباح .
- (2.1) لست متأكداً بأنه سيتتبي في الوقت المحدد .
- (2.2) سأنهي هذه الجلة حالا .
- (2.3) سأنتهي في أسرع ما يمكن .
- (2.4) عندما نتعب سستنهي .
- (2.5) سستنهي العمل عندما يعمل .
- (2.6) هي ستميل في وقت ما .
- (2.7) هي ستميل فيها بعد .
- (2.8) سيغادر في أية لحظة الآن .

(B) Non-Systematic Functions

- (1.1) سأنتهي من العمل بأرمان بعد الامتحانات .
- (1.2) سأنهي العمل بعد الشاي .
- (1.3) سأنهي هذا بعد أن نكون ذهبنا للقهوة .
- (1.4) سسنغادر معاً بعد ذلك .
- (1.5) سسنغادر معاً بعد أن نلتقي غداً .
- (1.6) سأغادر بعد أن أكسب حملت على شهادتي .

- (2.1) سأنتهي حياتي قبل أن أتي .
- (2.2) سأنتهي الجسر قبل السنة القادمة ...
- (2.3) سأنتهي الكتاب قبل أن أنام .
- (2.4) سأنتهي قبلك ما لم تسرع .
- (2.5) سأنتهي من حياكة هذا القمص قبل نهاية الأسبوع .
- (2.6) سأنتهي قبل ذلك الوقت .
- (2.7) سأنتهي قبل أن يدق الجرس .

VI. LATER PAST : WOULD WRITE

(A) Systematic Functions

- (1.1) قال بأنه سأذهب إلى السينما هذا الصباح .
- (1.2) قال بأنه سأذهب مساء الغد .
- (1.3) قال بأنه سأذهب بعد أن نصل .
- (1.4) وعدت بأنه سأذهب في ما بعد .
- (1.5) وعدت بأنه سأذهب ثانية .

(B) Non-Systematic Functions

- (1.1) سأذهبون بعد أن ينتهوا لو استطاعوا .
- (1.2) لو أتى سأذهب حالا .
- (1.3) سأذهب للترجل في الشتاء .
- (1.4) سأذهب في الأسبوع القادم لو استطعت .
- (1.5) سأذهب خلال النهار وليس مساء .
- (2.1) كنت سأذهب معك ولكن عندي شيء آخر هذا المساء .
- (2.2) كنا سأذهب في الأسبوع القادم ولكننا سنكون في إجازة .
- (2.3) كنا سأذهب للسينما بعد الشاي لو لا ارتباطنا .

- (2.4) كنت سأذهب اليوم ولكن ليس لدى وقت .
- (2.5) كنت سأذهب الآن بكل سرور ولكن يجب أن أنتظر حتى الأسبوع القادم .
- (3.1) قبل مغادرتي كنت أذهب عادة لروية والدتي .
- (3.2) كل يوم كان يذهب للسباحة في نهر كلفن .
- (3.3) كنا دائماً نأتي بالباس .
- (3.4) عادة كنا نأتي بالباس .

VII. SIMULTANEOUS PRESENT : IS WRITING

(A) Systematic Functions

- (1.1) هو يقرأ الآن .
- (1.2) الفتاة تقرأ كتاباً اليوم .
- (1.3) هو يقرأ هذا الكتاب قبل غدائه .
- (1.4) أحدهم يقرأ قصة اثناء هذه المحاضرة .
- (1.5) هو لا يزال يقرأ .
- (1.6) هم يقرأون في الوقت الحاضر .
- (1.7) هو يستمتع الى الموسيقى في هذه اللحظة .
- (2.1) صديقي يدرس الدراسات الكلاسيكية في أوكسفورد هذا العام .
- (2.2) دافيد براون يكتب مثل شكسبير في مسرح الكلوب هذا الأسبوع .
- (2.3) هو يكون يعمل بجد هذه الأيام .
- (3.1) هي تكون تقرأ نشرة الاخبار في الصباح .
- (3.2) عندما أصل يكون يقرأ عادة .
- (3.3) تكون دائماً تقرأ كلما رأيناها .
- (3.4) هي تكون تقرأ الكتاب كلما سنحت لها الفرصة .

(B) Non-Systematic Functions

- (1.1) • هي تفسيراً نشرة الاخبار في الصباح
- (1.2) • هو يبتدئ النشرة الجوية غداً
- (1.3) • هو يسدر الفرنسية في السنة القادمة
- (1.4) • هي تفسيراً بحثاً في الأسبوع القادم
- (1.5) • هو يفتاد خلال عشر دقائق
- (1.6) • هو يفتاد حالاً
- (2.1) • بطرس يكون يبتدئ حتى نودتنا

VIII. SIMULTANEOUS PAST : WAS WRITING(A) Systematic Functions

- (1.1) • كانت تفسيراً مجلة عندما وصل
- (1.2) • كنت أفسراً المندى تايمز في الليلة الماضية
- (1.3) • عندما دقت الساعة الثالثة كنت أفسراً كتاباً
- (1.4) • بينما كنت أفسراً صحيفة منذ عهد قريب احترقت الصحيفة
- (1.5) • كان يسدر في تلك اللحظة
- (2.1) • كنت أفسراً الكتاب طوال الصباح
- (2.2) • كنت أفسراً لبعض الوقت
- (2.3) • كان يبتدئ طوال يوم أمس

(B) Non-Systematic Functions

- (1.1) • كنت أفسراً الكتاب قبل مبيتك الى البيت
- (1.2) • كنت أفسراً هذا الكتاب الى أن جاء
- (1.3) • كنت أنكس معه قبل ذلك

- (1.4) كنت أتكلم معه قبل أن أُنابلك .
 (2.1) بعد أن عدت الى البيت كنت اقسراً أنك المقالة .
 (2.2) كان يقسراً الكتاب بعد أن أشرت الشمس .

IX. SIMULTANEOUS EARLIER-PRESENT : HAS BEEN WRITING

(A) Systematic Functions

- (1.1) هو يشتغل في تلك السيارة منذ أكثر من أسبوع الآن .
 (1.2) هي تشتغل طوال اليوم استعداداً للامتحانات القادمة .
 (1.3) هو يشتغل في هذه المقالة منذ فترة طويلة .
 (1.4) هو يشتغل بدون توقف منذ أمس .
 (1.5) هي تشتغل باستمرار .
 (1.6) هو يساني الى هنا منذ فترة .

(B) Non-Systematic Functions

- (1.1) إن تكن جين اشتغلت لثلاث ساعات في الساعة الثالثة فلن أزعجها .

X. SIMULTANEOUS EARLIER-PAST : HAD BEEN WRITING

(A) Systematic Functions

- (1.1) كنت اقسراً السيلتك فيوفي صباح الاربعاء الباكر .
 (1.2) كانوا يقسراً عندما دق الجرس .
 (1.3) كنت اقسراً طوال اليوم .
 (1.4) كنت اقسراً ذلك الجزء من الكتاب بالأمس فقط .
 (1.5) كانت جين تقسراً الى أن انقطع التيار الكهربائي .
 (2.1) كان يقسروا بسرعة قبل الغداء .
 (2.2) كان يقسراً قبل أن نسل .
 (2.3) قبل أن يعمل بالأمس كنت اقسراً المجلة .

(2.4)

• كنت أتسكلم معه قبل قليل

(B) Non-Systematic Functions

لولا انه كان يتقرا السكوتسان هذا المباح كنت حاولت لعبة الكلمات (1.1)
المتناطعة •

XI. SIMULTANEOUS LATER-PRESENT : WILL BE WRITING(A) Systematic Functions

- (1.1) • غداً سيكون يتقرا الكتاب الذي أعزته له
- (1.2) • ساءكون أدرس ذلك في الفعل القادم
- (1.3) • سسكون يدرس هذا في العشر سنوات القادمة
- (1.4) • سستكون تقرا هذا عندما نعمل
- (1.5) • سساءكون اقرا هذا الكتاب طراى المساء
- (1.6) • سسيفاد ر قريباً
- (1.7) • سساءفاد ر غداً
- (1.8) • سستعمل في وقت ما غداً
- (2.1) • بما أن الامتحان قد قدم الى الأسبوع القادم، فسأكون اقرا كل الكتب كل ليلة هذا الأسبوع

(B) Non-Systematic Functions

- (1.1) • سستكون تقرا قصتها الجديدة لنصف ساعة قبل أن تنام
- (1.2) • سساءكون اقرا حول مواضيع مختلفة خلال الأسابيع القليلة القادمة قبل بداية الامتحانات
- (1.3) • سسكون فريد يترا الى أن يصبح الديك في الساعة الثالثة
- (1.4) • سساءكون اقرا حين تجلب الناموس
- (2.1) • سسكون يقرا تشوسر بعد أن ينتهي شكيبير

- (2.2) سأكون أقرأ ذلك الكتاب بعد أن أكون أنهيت هذا .
- (2.3) سأكون أقرأ قمتي هذا مساء بعد أن تغادر .
- (2.4) سأكون أقرأ في ضوء ضعيف بعد الغروب .

XII. SIMULTANEOUS LATER-PAST : WOULD BE WRITING

(A) Systematic Functions

- (1.1) لم نطلق حول ذلك لأنه سأغادر في مايس .
- (1.2) أخبرته بأنني سأغادر في نهاية الشهر .
- (1.3) أخبرني بأنه سأغادر هذا .
- (1.4) قال بأنه سأغادر بالأمس ولكنه لم يفعل .
- (1.5) قال بأنه سأغادر حينما يحسrf النتيجة .
- (1.6) قال جيم باكستر بأنه سأترك رينجرز هذا الموسم .
- (1.7) عندما وصلت كانوا سأغادرون .

(B) Non-Systematic Functions

- (1.1) كنت سأغادر الجامعة في أول حزيران لولا شهادة تأريخ العلوم .
- (1.2) كانت سأغادر هذا لولا مرض أمها .
- (1.3) كنت سأغادر الوطن هذا العام لو لم أكن أشتغل في كلاسكو .
- (1.4) كنا سأغادر هذا لولا إضراب القطارات .
- (2.1) سأغادر اسكتلندة في حزيران لو استطاع أن يحصل على نفس الوظيفة في مكان آخر .
- (2.2) سأغادر حالا لو استطعت .
- (2.3) سأغادر خلال أسبوعين .
- (2.4) سأغادر للمباراة في الرابعة بعد الظهر هذا .

- (2.5) سيغادرون بعد أسبوع من يوم السبت .
- (2.6) سيغادر في أوائل الأسبوع القادم .
- (3.1) كنت سيغادر الآن لو كنت حزمت أمتعتي .
- (3.2) لو لم أكن أصبت بالأنفلونزا لكنت سيغادر بمقطار السادسة والربع هذه الليلة .
- (3.3) كنا سيغادر الآن لو لم يكونوا وصلوا قبل خمس دقائق .
- (3.4) كنت سيغادر الآن ولكن لازال عليّ أن أكمل هذه الجملة .
- (4.1) سيغادرون بعد انتهاء البرنامج في الصباح .
- (4.2) سيغادر حالا بعد المدرسة .
- (5.1) سيغادر المحطة قبل ذلك الوقت .
- (5.2) سيغادر قبل نهاية الامتحانات .
- (6.1) كنت سيغادر قبل ذلك لو لم يتحتم عليّ أن أُملاّ هذا .
- (6.2) كنت سيغادر قبل ذلك ولكني سأقابل أحد الاشخاص في الساعة الخامسة .
- (7.1) عادة " كان يذهب في نهاية الأسبوع .
- (7.2) في الثالثة من يوم السبت كنت عادةً أذهب الى البيت .

XIII. PRE-LATER PRESENT : WILL HAVE WRITTEN

(A) Systematic Functions

- (1.1) لهذا " سيكون أنهي العمل بالسيارة .
- (1.2) سيكون أنهينا هذا الأستفتاء عندما يدق جرس الغداء .
- (1.3) في الشهر القادم سيكون أنهيت صورتي .
- (1.4) أرجو مخلصاً بانك ستكون أنهيت تسجيل الشقة عندما أصل لأسكن بها .

- (1.5) سـنـكـونـنـهـنـا هذا خلال عشر دقائق .
- (1.6) سـيـكـونـجـونـقـد انـتـهـيـي قبل أن أأغار .
- (1.7) سـيـكـونـجـونـقـد انـتـهـيـي في ذلك الوقت .

(B) Non-Systematic Functions

- (1.1) بعد الساعة سـنـكـونـنـهـنـا طعامنا .
- (1.2) سـنـكـونـنـهـنـا هذا في آخر عصر اليوم .
- (1.3) سـاـكـونـانـهـيـتـعـمـلـي عندما تأتي بعد الغداء .

XIV. PRE-LATER PAST : WOULD HAVE WRITTEN

(A) Systematic Functions

- (1.1) قبل أن يمل المحطة كان سـيـكـونـقـد زـهـبـ .
- (1.2) كنت سـاـكـونـزـهـيـت قبل أن يتأزم الموقف .
- (1.3) كانت سـيـكـونـغـادـرت .

(B) Non-Systematic Functions

- (1.1) كنت سـاـكـونـزـهـيـت بالأمس ولكن كان لدى عمل كثير .
- (1.2) كنا سـنـكـونـزـهـيـنـا بالسنة الماضية لو كان لدينا وقت أكثر .
- (1.3) كنت سـاـكـونـزـهـيـت للتسوق اليوم ولكن لم يكن لدى وقت .
- (1.4) لو كان جون قد جاء في الساعة الثالثة كنت سـاـكـونـزـهـيـت معه
الى السينما .
- (1.5) كنا سـنـكـونـزـهـيـنـا قبلًا ولكن السماء بدأت تمطر .
- (2.1) كنت سـاـكـونـزـهـيـت الى العرض الليلة لو كانت عندي بطاقات .
- (2.2) كنت سـاـكـونـزـهـيـت الى السينما إذاً لو لم يكن لدى عمل آخر .
- (2.3) كان سـيـكـونـزـهـب للسفرة إذاً لو لم تكن تتعارض مع امتحانه .

- (2.4) كنت سأكون ذ هبت معك في الصباح لو كان لدى الوقت أو المال .
- (3.1) كنت سأكون ذ هبت للقيام بجولة بعد أن أنهيت عملي لولم تأت لزيارتي .
- (3.2) كنا سنكون ذ هبنا بعد ذلك ولكن الاجتماع جعل هذا مستحيلا .
- (3.3) كنت سأكون ذ هبت الى البيت بعد ذلك .
- (3.4) كنا سنكون ذ هبنا بعد العجالة لولم تكن السماء تمطر .
- (4.1) كنا سنكون غدا رنا الآن لولا أن السماء تمطر .

XV. SIMULTANEOUS PRE-LATER PRESENT : WILL HAVE BEEN WRITING

(A) Systematic Functions

- (1.1) غداً سيكون الطلاب قد اشتغلوا لعدة ساعات .
- (1.2) بعد عشر ثوان سأكون اشتغلت في هذا لخمس دقائق .
- (1.3) في الجمعة المقبلة سأكون اشتغلت لمدة اسبوعين .
- (1.4) سأكون اشتغلت حتى منتصف الليل حين ينتهي هذا .
- (1.5) سنكون قد اشتغلنا طوال العام .
- (1.6) ستكون أي اشتغلت بالبيت هذا اليوم .

(B) Non-Systematic Functions

- (1.1) سنكون اشتغلنا في هذه البناية لخمسة اشهر الآن .

XVI. SIMULTANEOUS PRE-LATER PAST : WOULD HAVE BEEN WRITING

(A) Systematic Functions

- (1.1) كنا سنكون ذ هبنا بعد أن وصلنا ولكني شعرت باني تعب للغاية .
- (1.2) كانوا سيكونوا ذ ههبوا بعد أن غادرت .
- (1.3) كنا سنكون ذ هبنا بعد ذلك لو كان القطار قد توقف .

- (1.4) كنا سنكون ذهابنا للمباراة بعد الشاي ولكن السماء كانت قد
بدأت تمطر في ذلك الوقت .
- (1.5) كانوا سيكونوا ذهابوا الى الخارج بعد الاكتشاف لو كانت
جوازاتهم كاملة .

(B) Non-Systematic Functions

- (1.1) عدا كنت سأكون أسافر الى الخارج لو لم أمرض .
- (1.2) كنت سأكون أسافر الى لندن في الصباح لو لم يكن هذا قد حدث .
- (1.3) كنا سنكون نذهب في سفرة في عطلة نهاية الأسبوع لو لم تنكسر
السيارة .
- (1.4) كنت سأكون أذهب الى أدنبرة عدا ولكن أمرا ما قد طرأ .
- (2.1) كان الزوجان سيكونا خرجا بالأسر لو لم تكن السماء ممطرة .
- (2.2) كنت سأكون خرجت لشراء بعض الطعام قبل الآن لو لم يكن
طلب مني عمل هذا .
- (2.3) كنت سأكون ذهبت لمباراة اسكتلندة لو كنت في كلاسكو
في الأسبوع الماضي .
- (2.4) كنا سنكون ذهابنا للرقص في الليلة الماضية ولكن كان علينا ان
نذهب لكان أخسر .
- (2.5) كان سيكون ذهاب للحفلة مساء يوم الاحد ولكنه مرض .
- (3.1) كنت سأكون أذهب للحفلة الموسيقية الليلة لو لم تكن تلك المقالة
قد خصصت ليوم الغد .
- (3.2) لوتحقق التواريخ كنا سنكون ذهابنا اليوم .
- (3.3) كنت سأكون أذهب الى غدائي الآن لولا هذه الاسئلة .
- (3.4) لولا هذا كنت سأكون أذهب الى غدائي في هذه اللحظة .
- (3.5) كنت سأكون أذهب الليلة لولا إضراب الباصات .

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