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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 the Requirements for the Degree of Doctor of Philosophy Summer, 1972
DESCRIPTION
AND
CONTRASTIVE ANALYSIS
OF
TENSE AND TIME IN ENGLISH AND ARABIC
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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. 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

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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.  

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

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3 On 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

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.

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

5Joseph Vachek, The Linguistic School of Prague (Bloomington: Indiana University Press, 1956), pp.84-85

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

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.

CHAPTER TWO

TIME AND ORDER

(A) Introduction

According to the Oxford Dictionary, the word 'time' etymologically comes from the root $\langle t\ddagger \rangle$ 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

¹ The Oxford Dictionary, Vol. XI, p. 37
² Encyclopaedia Britannica, Vol. 21, p. 1159
measured relative to each other or to some real or hypothetrical 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 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. 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

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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'. 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 how much 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. " 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." In the same vein, R.A. Close points out that "in tenses we are concerned with aspects of ACTIVITY and aspects of TIME." 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
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." 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. In it, he defines a verb

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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/, /kātib/, /maktūb/ or like /nām/, /yanām/, /nā?im/, 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. 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 verbexas 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.

The 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 /yaktūb/ '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 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 triliteral 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. Quadriliteral roots, however, are not uncommon in Arabic. They can be seen in verbs like /TaRJaM/ '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/, /kätib/, /-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

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or passive participle, verbal nouns and the like."

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', /?aktub/ '(I) write', etc.

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(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
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. However, two modifications have been introduced: the symbol '9' is used for the voiced pharyngeal fricative instead of the symbol '6' used by Ziadeh and Winder. Secondly, the symbol '?' is used in the present study for the voiceless glottal stop instead of the symbol '}'. The full list of the transliteration symbols and their Arabic originals is as follows:

<table>
<thead>
<tr>
<th>Arabic Symbol</th>
<th>Transliteration</th>
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<td>ء</td>
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<tr>
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<th>Transliteration</th>
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<td>ay</td>
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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 analyzing 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 analyze 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

(i) 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
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 /general PAST/ bus.
7. Light (travel) /general fact/ faster than sound.
8. I (see) this /indefinitely before the present time/ film.
9. She (arrive). /indefinitely in the FUTURE/
10. I (talk) to /before I met you/ him.
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 des- tination 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 analyzed 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. 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 eating 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.

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2 For definitions of verbids 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**

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

```
Before   After   Before   After   Before   After
P A S T   P R E S E N T   F U T U R E
```

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

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. 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'

See the previous chapter for the full version of the experimental test.
2. Before the Present : 'Indefinitely before the present moment'
3. After the Present : 'Indefinitely after the 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

\(^3\)The 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 Grammar\(^4\) and recent like Hook and Matthews' Modern American Grammar and Usage\(^5\), 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


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." He, then, gives the following representative verbal forms respectively: return, returned, have returned, had returned, shall return and shall have returned.

A more recent, 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

---

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

Jespersen however does not try to go beyond the surface of these examples and analyze many of the interesting phenomena involved here. He fails, for example, to
notice the role of many conditioning factors in the sele-
ction 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 'verbids' is interesting. His set-
ting up of two kinds of passive in relation to the sub-
ject of tense is also valuable. The treatments of 'ex-
pansion' and that of 'back-shifting' in tense are de-
tailed 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 re-
cognize 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 simulta-
neous with, or what the temporal relations of 'before'

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

8 G. 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):

<table>
<thead>
<tr>
<th>Tense Type</th>
<th>Reference Points</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>1PR</td>
<td>'He sees me'</td>
</tr>
<tr>
<td>Past definite</td>
<td>2PR ← 1PR</td>
<td>'He saw me'</td>
</tr>
<tr>
<td>Past indefinite</td>
<td>← 1PR</td>
<td>'He has seen me'</td>
</tr>
<tr>
<td>Future</td>
<td>1PR →</td>
<td>'He will see me'</td>
</tr>
<tr>
<td>Pluperfect</td>
<td>← 2PR ← 1PR</td>
<td>'He had seen me'</td>
</tr>
<tr>
<td>Future-perfect</td>
<td>1PR → 2PR</td>
<td>'He will have seen me'</td>
</tr>
<tr>
<td>Future-in-the-past</td>
<td>2PR ← 1PR</td>
<td>'He was to see me'</td>
</tr>
</tbody>
</table>

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.

VI. Reichenbach's 'Logical' Tense System

In his book, Elements of Symbolic Logic, Hans Reichenbach does recognize all the nine temporal locations in time. 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-

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):

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).

<table>
<thead>
<tr>
<th>Structure</th>
<th>New Name</th>
<th>Traditional Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>$E - R - S$</td>
<td>Anterior past</td>
<td>Past perfect</td>
</tr>
<tr>
<td>$E, R - S$</td>
<td>Simple past</td>
<td>Simple past</td>
</tr>
<tr>
<td>$R - E - S$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R - S, E$</td>
<td>Posterior past</td>
<td></td>
</tr>
<tr>
<td>$R - S - E$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$E - S, R$</td>
<td>Anterior present</td>
<td>Present perfect</td>
</tr>
<tr>
<td>$S, R, E$</td>
<td>Simple Present</td>
<td>Present</td>
</tr>
<tr>
<td>$S, R - E$</td>
<td>Posterior present</td>
<td>Simple future</td>
</tr>
<tr>
<td>$S - E - R$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$S, E - R$</td>
<td>Anterior future</td>
<td>Future perfect</td>
</tr>
<tr>
<td>$E - S - R$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$S - R, E$</td>
<td>Simple future</td>
<td>Simple future</td>
</tr>
<tr>
<td>$S - R - E$</td>
<td>Posterior future</td>
<td></td>
</tr>
</tbody>
</table>

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 English 11 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

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10 Reichenbach's views on these subjects will be discussed later in their relevant places in this study.
11 Robert L. Allen, Kontrollu İngilizce (Controlled English) (Istanbul: Amerikan Borç Nesriyat Dairesi, 1948 – 50).
three 'kinds of time' and three 'time-relationships':

<table>
<thead>
<tr>
<th>THE PAST</th>
<th>THE PRESENT</th>
<th>THE FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earlier</td>
<td>Earlier</td>
<td>Earlier</td>
</tr>
<tr>
<td>Time</td>
<td>Time</td>
<td>Time</td>
</tr>
<tr>
<td></td>
<td>Later</td>
<td>Later</td>
</tr>
<tr>
<td></td>
<td>Time</td>
<td>Time</td>
</tr>
<tr>
<td>Same</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>Time</td>
<td>Time</td>
<td>Time</td>
</tr>
</tbody>
</table>

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

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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, $0V$, 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.

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

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 analyze the sixteen 'basic' forms are those of: tense, progressiveness, perfection (aspect), and voice.

Similar to Twaddell's treatment of WILL and SHALL, 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
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):

```
<table>
<thead>
<tr>
<th>Remoter Past</th>
<th>Past</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present non-perfect</td>
<td></td>
<td>..........</td>
</tr>
<tr>
<td>Past non-perfect</td>
<td></td>
<td>......</td>
</tr>
<tr>
<td>Present perfect</td>
<td></td>
<td>.......</td>
</tr>
<tr>
<td>Past perfect</td>
<td></td>
<td>............</td>
</tr>
</tbody>
</table>
```

at the moment
when he came

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.\textsuperscript{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.

\textsuperscript{15}This point is to be elaborated on later in the study.
BE, HAVE, and all modals. Such complex conjugational forms are again analyzed 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

\[
\begin{align*}
\text{had} & \quad \text{would} & \quad \text{have} & \quad \text{will} \\
\text{to} & \quad \downarrow & \quad \downarrow & \quad \downarrow & \quad \downarrow & \quad \downarrow \\
\text{[d]} & \quad \text{[d]} & \quad \text{[d]} & \quad \text{[ø]} & \quad \text{[ø]} & \quad \text{[ø]} & \quad \text{[ø]}
\end{align*}
\]

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 overall 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

have / has [∅] will

AN IDENTIFIED TIME AN IDENTIFIED TIME
IN THE PAST IN THE FUTURE

[-d] had would will have +
would will have
have
[-d] [∅] [∅]

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." 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.

Chomsky himself believes that it was expressed by Wilhelm von Humboldt 'more than a century ago.' 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 $\rightarrow$ NP + VP

NP $\rightarrow$ T + N

VP $\rightarrow$ Verb + NP

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

\[
\begin{align*}
\text{Verb} & \rightarrow \text{Aux + V} \\
\text{V} & \rightarrow \text{hit, take, walk, read, etc.} \\
\text{Aux} & \rightarrow C \ (M) \ (\text{have + en}) \ (\text{be + ing}) \ (\text{be + en})^{18} \\
\text{M} & \rightarrow \text{will, can, may, shall, must} \\
\text{S} & \text{ in the context NP sing-} \\
\text{C} & \rightarrow \begin{cases} \\
\varnothing & \text{in the context NP pl-} \\
past & \end{cases} \\
\end{align*}
\]

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 \(\varnothing\) 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:

\[
\begin{align*}
C & \rightarrow \left\{ \begin{array}{c}
past \\
present \\
\end{array} \right\} + \text{number}
\end{align*}
\]

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

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

---

19 For 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. 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.

20 Chomsky 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. 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/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):

\[ \text{Aux} \rightarrow \text{Tense (Modal) (Perfect) (Progressive)} \]

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:

\[ \text{Aux} \rightarrow \text{Tense (M) (Aspect)} \]

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

\[ ^{21} \text{A verbal phrase in Chomsky's terminology does not necessarily consist of more than one word.} \]
status suggested in *Syntactic Structures*. This new analysis of the sentence appears in the following diagram:\(^{22}\) (with irrelevant details omitted)

![Diagram of 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:

\[
\begin{align*}
S & \rightarrow NP \rightarrowtext{Predicate-Phrase} \\
\text{Predicate-Phrase} & \rightarrow Aux \rightarrowtext{VP (Place) (Time)} \\
& \text{books}
\end{align*}
\]

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

\(^{22}\)Chomsky, *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

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](image)

**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

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):

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

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:

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

or from this one from page 84:

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

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

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25This 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:

\[
\text{tense} \rightarrow \{ \text{present} \}
\]

\[
\text{past}
\]

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." 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

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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):

\[(T_n \text{ (Modal)} \text{ (have + en)} \text{ (be + ing)} MV)\]

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. 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'

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one of past, present, and future. 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 VGrp [verbal group]" (p. 786). He adds that "tense is associated in deep structure not with anything equivalent to a VGrp, 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

---

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 /puld/ pulled, /t/ in /pusht/ pushed, /id/ in /weytid/ or a vowel change as in /iawnd/ found from /faynd/ 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 that 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 \( \{D_1\} \). 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:

- 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, \( \{A\} \), 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* 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

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\[1\] It 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 \{∅\}.

(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, \{∅\}. 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 tensemes 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 tensemes. Thus in the following sentences all verbs and verbal clusters are past tensemes 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 tensemes 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 'lateness' in relation to the present moment, now, whereas the latter specifies 'earlierness' in relation to the same temporal point of reference. The past tensemes 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 tensemes 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 tensemes 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 tensemes. The tensemes of each tense are the verbs and verbal clusters which represent all the alternative temporal relations within that tense. Tensemes are thus the exponents of tenses in that any
tense can only be linguistically realized through one of its tensemes. Any tense may only be detected in its tensemes and every tenseme must belong to a certain tense.

(C) Aspect and Aspectual Markers

Tensemes, 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 analyzed 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. 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

\[ \text{There is still another contrastive pair of aspect in English. This is discussed and analyzed in the next chapter on 'expansion'.} \]
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 tenses such as \textit{writes} and \textit{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 \textit{have} which is made up of \textit{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 \textit{written} in the above example. \textit{Written} is therefore to be analyzed as:

\text{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 $\{\emptyset\}$ and a past moment by $\{D_1\}$. Their presence in the various tensemes 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 Tensemes**

1. The Simple Tensemes

The simple tensemes 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 tensemes 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 tensemes will be ambiguous. Examples of a verb with identical simple tensemes are
the following:

He **cuts** it with a sharp knife. (Formally identified as present)

They **cut** it yesterday. (Contextually identified as past)

You **cut** it quickly. (Ambiguous temporal reference)

Simple present and simple past tensemes 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 tensemes is modified by nothing but the past- or present-tense marker, whereas in the case of all other tensemes, one or more markers of aspect are always present.

The absence of aspectual markers in simple tensemes 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 Tensemes**

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

²See pages 82 - 83 of the present study for an example of such attitudes.
'We have written it' = \{\emptyset_1\} + \{D_2\}
'They may write soon.' = \{\emptyset_1\} + \{\emptyset_2\}
'She had written earlier.' = \{D_1\} + \{D_2\}

3. Complex Tensemes

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

'We should have written by then.' = \{\emptyset_1\} + \{\emptyset_2\} + \{D_2\}
'They might have written sooner.' = \{D_1\} + \{\emptyset_2\} + \{D_2\}

(E) Binary Oppositions in Tenses, Tensemes, and Aspects

The temporal distribution of tenses, tensemes, 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/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:

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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 \( \{\varnothing_1\} \) 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 tringular 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 tensemes are used in many linguistic situations in English. The basic temporal location of a simple-present tenseme 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 tensemes, 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 with tense markers to form various compound and complex tensemes. 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 laterness 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;

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

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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 tensemes of either tense in English is thus as follows:

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 tensemes, 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 tensemes in either tense are main in the sense that each is unique in indicating a specific temporal order, whereas all other tensemes 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 tensemes 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 writes there all the time.)} = Basic Present
   (b) He writes now. } = Basic Present
   (c) He has written. = Earlier Present
   (d) He will write. = Later Present

2. Past Tense

   (a) He always wrote there. } = Basic Past
   (b) He wrote it yesterday. } = Basic Past
   (c) He had written before we met. = Earlier Past
   (d) He said he would write. = 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 analysed as:

\[
\text{WRITE} + \{\text{-D}_2\} + \{\text{-\phi}_2\}
\]

with the claim that this word be in line/put by some grammarians that there is no verb in English which is aspectually empty. But the above claim, it seems, is not based on formal criteria. Both \{\text{-D}_2\} and \{\text{-\phi}_2\} are formally inert and hence insignificant. It is the point of view held in this study

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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 \( \{-\omega_2\} \) in the description of the simple tensemes 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. 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.

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9 This 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."

10 It 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/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 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. Lateness 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 tensemes as would have written and none at all of tensemes like will have written. Besides, in a corpus of 5201 tensemes, 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. As the present study is basically concerned with tense and


12A 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. English has no formal linguistic representation of 'must + \{D_1\}', for example. Consequently, to refer to past time, the earlier aspectual marker \{D_2\} is added to these forms instead. This alternative is theoretically justifiable as both temporal marker \{D_1\} and \{D_2\}/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 \{\varnothing_2\}. Thus **must write**, for example, can be analyzed into: must + \{\varnothing_1\} + write + \{\varnothing_2\}. This analysis shows that **must write** has the present tense of **must** and the non-earlier aspect of **write**. To make **must write** refer

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13 By 'normal' past forms are meant forms that consist of the corresponding present forms plus the past morpheme \{D_1\}.
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/ 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 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. 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)

\(^{14}\)For 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 tenseme.

With modals that form their 'basic-past' tensemes by the help of $D_2$, this means that there ought to be two occurrences of $D_2$ in their earlier-past tensemes; something which is not possible in English. Consequently, both 'basic past' and 'earlier past' of such modals are formally indicated by the same tenseme as in the following examples: 15

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

---

As 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 tensemes are unable to do so formally.
A later-time reference, on the other hand, would usually require \( \{ \phi_2^+ \} \). However, the later aspect \( \{ \phi_2^+ \} \) consists of the non-earlier marker \( \{ \phi_2 \} \) plus will or shall, as has been said above. Since no more than one modal can occur in any one verbal clusters 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 tenseeme 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 \( \{ \phi_2 \} \) 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 tensemes. The earlier-present tenseeme 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:

\begin{align*}
\text{He must go now.} & \quad \text{(Basic Present)} \\
\text{He must always go early.} & \quad \text{(Basic Present)} \\
\text{He must go tomorrow.} & \quad \text{(Later Present)} \\
\text{He must go there before he comes to see me next week.} & \quad \text{(Earlier-to-Later Present)} \\
\text{They can leave now.} & \quad \text{(Basic Present)} \\
\text{They can usually stay here.} & \quad \text{(Basic Present)} \\
\text{They can come next week.} & \quad \text{(Later Present)} \\
\text{They can leave before the end of this lesson.} & \quad \text{(Earlier-to-Later Present)}
\end{align*}

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 Crystal\textsuperscript{16} 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.\textsuperscript{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.\textsuperscript{18}

\textsuperscript{17}A detailed discussion and analysis on the role of temporal adverbials in English follows in Chapter Six.
\textsuperscript{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 tensemes 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 tensemes 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 tensemes 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 tensemes can still be shifted backwards in tense since the past-tense marker can no longer be shifted further towards the past. Thus, all present tensemes in reported speech are shifted to their corresponding past tensemes. The following are some examples of what takes place:

<table>
<thead>
<tr>
<th>Direct Speech</th>
<th>Reported Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &quot;She is happy.&quot;</td>
<td>she was happy.</td>
</tr>
<tr>
<td>2. &quot;She will leave soon.&quot;</td>
<td>she would leave soon.</td>
</tr>
<tr>
<td>3. &quot;She has gone.&quot;</td>
<td>she had gone.</td>
</tr>
<tr>
<td>4. &quot;She will have gone by now.&quot;</td>
<td>she would have gone by then.</td>
</tr>
</tbody>
</table>

As far as past tensemes 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 can be shifted backwards neither in tense nor in aspect. Besides, later-past tensemes such as would go cannot in turn be shifted either to the 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 'laterness' in the past can also be indicated by the basic-past tenseme as the following example may show:

'We left together but arrived at our 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 \{\phi^2+\} in both cases, e.g.:

<table>
<thead>
<tr>
<th>Direct Speech</th>
<th>Reported Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I would go later.&quot;</td>
<td>He said that he would go later.</td>
</tr>
<tr>
<td>&quot;I would go if I have the money.&quot;</td>
<td>he would have gone if he had the money.</td>
</tr>
</tbody>
</table>

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 tensephrases and from later aspect and past tense to earlier aspect in the case of past tensephrases. 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 tensemes forwardly in time, viz. transforming past tensemes 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 tensemes, 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 tenseeme to agree with the other tensemes, 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

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

<table>
<thead>
<tr>
<th>Form</th>
<th>Marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>write/writes</td>
<td>{∅_1}</td>
</tr>
<tr>
<td>has/have written</td>
<td>{∅_1} + {D_2}</td>
</tr>
<tr>
<td>will/shall write</td>
<td>{∅_1} + {∅_2^2}</td>
</tr>
<tr>
<td>will/shall have written</td>
<td>{∅_1} + {∅_2^2} + {D_2}</td>
</tr>
</tbody>
</table>
Tense markers always appear initially in tensemes, 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 tensemes 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 tensemes.

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 tenseme by its corresponding basic tenseme which is an 'aspectless' tenseme. 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 'grammaticality' 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 earlierness 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

\(^{19}\)Bull 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 tenseme had seen and the basic-past tenseme saw may thus be said to be 'neutralized' by the presence of before.

Similarly, the basic-present tenseme may replace the earlier-present tenseme 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 tenseme 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 $\{0^2+\}$ in both the replaced and the replacing tensemes. It is only in such cases that neutralization does not involve the possible use of a basic tenseme. 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 $\{0^+\}$ 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 $\{0^+\}$. Consequently, the following is a redundant sentence:

He will leave tomorrow.
To remove redundancy, $\{0^+\}$ 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 $\{0\}$ 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 tensemes
like would leave indicate 'anticipation' in the past whereas basic-past tensemes, like left in the 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 reference 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 semantically different.

(J) The Sequence of Tensemes

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 senten-
ces 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 tenseme occurs
in an independent clause and is oriented to a separate
point of reference represented by \{D_1\} and \{Ø_1\} as
well as by the two temporal adverbs yesterday and to-
morrow. 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: \( E_1 \) - \( R_1 \) - \( S \)
2nd clause: \( R_2, E_2 \) - \( S \)
3rd clause: \( R_3, E_3 \) - \( S \)

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 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 \( \text{D} \) whereas all those that cluster around the latter point of reference are formally marked by \( \text{O} \). 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. These relationships are in most cases formally marked by the aspectual markers: \( \text{O} \), \( \text{D} \) and \( \text{O}^+ \). Thus \( \text{O} \) would indicate a time-relationship non-earlier than a point of reference, \( \text{D} \) an earlier time-relationship, and \( \text{O}^+ \) 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.

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20Allen, 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 tensemes 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 tensemes 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 tensemes. Finally, a tenseme which has the later aspectual marker, \( \{\emptyset_2^+\} \), will occur at a time later than any of the other tensemes which cluster

\(^{21}\) Allen 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 tensemes 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 tensemes as follows:

\[
\begin{align*}
E_1 & - R_1 - S \\
R_2 & - E_2 - S \\
R_3 & - E_3 - S
\end{align*}
\]

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 represented by the other two tensemes. Nevertheless, all three temporally-related tensemes 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 previously mentioned principle of 'permanence of reference point'.

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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. 'Earliness' 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, 'earliness' 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 tensemes:

*He had telephoned before he came.*

*He telephoned before he came.*

Both tensemes 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:

\[
E_1 - R_1 - S
\]

\[
R_2, E_2 - S
\]

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 tensemes 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 tensemes. 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 tensemes.

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 tensemes 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 tensemes 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 tensemes. This would give us the following alternative analysis of would kill, for example:

$$ R \rightarrow E $$

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 tensemes in Allen's second sentence quoted above can be analyzed as follows without violating the permanence-of-reference principle:

$$ E_1 \rightarrow D_1 $$

$$ D_1 \rightarrow E_2 $$

$$ D_1 \rightarrow E_3 $$

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 tensemes 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. \( E_1 - D_1 \) 
   \( D_1, E_2 \)
2. \( E_1 - D_1 \) 
   \( D_1, E_2 \) 
   \( D_1 - E_3 \)

It may be interesting to notice that in the second sentence above, the last two tensemes 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 tensemes which has been
formulated earlier in this section.\textsuperscript{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 \{Ø_2+\} to the second tenseme since \{Ø_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. \textit{'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 shifttings in English. 'Broken sequence' refers to an unexpected change in the sequence of tensemes in a given sentence. This unexpected change is usually

\textsuperscript{23}See page 128
represented by a shift from one tense marker to the other, e.g. a past tenseme 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 tenseme 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 tensemes, i.e. have given and asked indicate an indefinite point in the past. Hence has asked might be expected for the second tenseme 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 tenseme rather than by an earlier-present tenseme, as if the unidentified point had already become sufficiently defined by the event of the first/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 tensemes 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 last 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 tensemes 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: (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) Verbids in the English Tense System

1. Verbids as Tensemes

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 $\{\varnothing_1\}$ 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 *verbids* 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

\(^{24}\)The '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 tensemes, 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 tensemes, 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 tenseme 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 tensemes seems to be justifiable. However, it must be realized that they cannot be put on equal footing with other tensemes 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 tensemes and to use the term major tensemes to
distinguish all other tensemes such as has written, will write, and writes when such a distinction is necessary. To consider verbids and verbid clusters as tensemes 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 tensemes 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 \( N \) 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 tenseme' as it is temporally marked by the morpheme \( D_2 \).

write: This form has the traditional name of 'infinitive': Its marker \( \emptyset \) has a non-earlier temporal reference. It may thus be called
here 'the non-earlier minor tenseme'.

As for verbid clusters, they may occur in a large variety of forms. The following list shows various forms that verbids\_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 verbids and verbid clusters 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 tensemes 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 Verbids

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-verb al 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\}, \{0_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\}, \{0_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. $\{N^\emptyset\}$: 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 $\{N^\emptyset\}$ in English appear in forms that are traditionally called 'particlples'. 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. The simplest way to identify the non-verbal uses of verbids with \( \{\text{N}\} \) and \( \{\text{D}_2\} \) seems to be that of substitutability. If any of such verbids with \( \{\text{N}\} \) or \( \{\text{D}_2\} \) is replaceable by a noun without affecting the grammaticality of the resulting sentences, then that verbid is a nominal and not a verbal. 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 \( \{\text{D}_2\} \) 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 \( \{\text{D}_2\} \) or \( \{\text{N}\} \) that is

\[\text{27} \quad \text{Forms with } \{\text{N}\} \text{ that specifically function as nominals are traditionally called 'gerunds'.}\]

\[\text{28} \quad \text{Sledd's terminology is being used here. A 'noun' is any form that can formally show the singular vs. plural relationship while a 'nominal' is any form that can occur in the positions in which nouns occur in English sentences.}\]
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 {D2}, 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. Adjec-tivals, 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:

---

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

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 \([N]\), \([\emptyset]\), 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 adjectival. Thus in such phrases as 'the paid price' and 'the price to pay', the markers $\{D_2\}$ and $\{\varnothing_2\}$ 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 tensemes 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 \( \partial_{1} \) 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 tensemes 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 \( D_{2} \), \( \partial_{2} \) 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:
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 tenseme in English. When one or more aspectual markers occur in any tenseme, one is always added to the base form of that tenseme. 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

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31 Even in minor tensemes, 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 tensemes, there is only a tense marker; in compound tensemes there is a tense marker plus one aspectual marker; whereas in complex tensemes 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 tensemes, 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 tensemes. 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 tensemes:

\[ \text{All the present tensemes in these sentences may be changed into past ones by replacing } \emptyset_1 \text{ with } D_1 \text{ and keeping other markers unchanged.} \]
1. I go there regularly.
2. I have gone there regularly.
3. I shall go there regularly.
4. I am going there regularly.
5. I shall be going there regularly.
6. He has been going there regularly.
7. I shall have gone there regularly.
8. I shall have been going there regularly.
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 tenseme wrote, for example, basically has a similar temporal reference to that of the tenseme 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
clusters, however. Therefore, as tensemes in complementary distribu-
tion, expanded verbal clusters of either tense in Eng-
lish 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 tem-
poral distribution of tensemes. 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


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 Language*. They use sentences and diagrams like the following to illustrate how expanded tensemes function as 'frames' for the non-expanded tensemes: (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

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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 nonsens..." 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 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 tensemes 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-occurrent with expanded tensemes.

The above statement about the non-omissibility
of temporal adverbials with expanded tensemes 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 \( \emptyset \), 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 tensemes 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, Allen'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." 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
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\}. This means that the above sentence will indicate sequence rather than simultaneity.

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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 tensemes, 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 tensemes 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 simulta-
neity, 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 tensemes 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 \( \mathcal{E}N \) 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 tensemes 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 un-grammatical 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

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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 indefinite 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 tensemes, 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): (1) 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." Joos points out that in such predications, verbs always occur in the form of 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 tensemes may also be used whenever it is found necessary to show that an event is simultaneous with another one. In the following extract

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 tensemes. 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

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

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 \( \{ \varnothing \_2^+ \} \))

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 \( \{ D_2^0 \} \) in such examples as:

I had gone. (Earlier Aspect \( \{ D_2^0 \} \))

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

This phenomenon of substitutability also explains why simple-present tensemes can in certain linguistic environments indicate later-present reference, i.e. futurity, without the presence of the later aspectual marker \( \{ \varnothing \_2^+ \} \). This may be seen in such sentences as:
He leaves later.
In the sentence above, the temporal function of the aspectual marker \(\{0^+\}\), viz. that of indicating 'laterness', 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. 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

\(^3\)See 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 tensemes 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 tensemes. The following rule may therefore be formulated for 'Auxiliary' in English:

\[
\text{Aux} \rightarrow \text{TTA} + (\text{ATA})_n
\]

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

\[
\text{TTA} \rightarrow \{ \text{in the past} \}
\]

\[
\text{TTA} \rightarrow \{ \text{at present} \}
\]

The occurrence of Aspectual Adverbials is optional in that they do not occur in all English tensemes; compound and complex tensemes have them but simple tensemes 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 tenseme in English. The number, however, cannot exceed three in English. This fact may be symbolically shown by adding \(( \rightarrow 3)\) to the
Auxiliary rule above. Aspectual Temporal Adverbials in English tensemes 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:

\[
\text{ATA} \rightarrow \begin{cases} 
\text{later} & / \quad \text{(ATA)} + \text{(ATA)} \\
\text{non-earlier} & / \quad \text{(ATA)} + \quad \quad \quad \quad \text{(ATA)} \\
\text{earlier} & / \quad \text{(ATA)} + \quad \quad \quad \quad \text{(ATA)} \\
\text{simultaneously} & / \quad \text{(ATA)} + \quad \quad \quad \quad \text{(ATA)} + \quad \quad \quad \quad ___ 
\end{cases}
\]

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 shall have been working, later aspect is carried by have; 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 tensemes, simple tensemes, 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 tensemes have been derived. Yet, the obvious intuitive relatedness among the tensemes 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 Aspect ⁵

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 tensemes by the presence of temporally-similar adverbials. In sentence (1.a) above, for example, the adverbial tomorrow with its inherent temporal 'laterness' makes redundant the later aspectual marker \( \{ \varphi_2^+ \} \) 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:

\[
T\text{-del} : \quad \text{NP} + \text{TTA} + \text{ATA} + v + X + \text{Adv-t} \\
(\text{ATA}) \\
\quad \rightarrow \text{NP} + \text{TTA} + v + X + \text{Adv-t} \\
\quad \text{When ATA and Adv-t have the same relational temporal value}
\]

It has already been shown in the rewriting of the Auxiliary above that ATAs always follow TTAs in the deep structure of English tensemes 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 tensemes, 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 tensemes, the last or rightmost 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:  

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

(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 \( \phi_2 \) to make it specifically refer to later-time. This, as has been mentioned in Chapter Three, is due to the relational temporal value of 'laterness' embedded in will and shall. Yet, it should be emphasized here that this does not mean that WILL introduces any new temporal

---

\(^6\) See 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 specification or topicalization of 'laterness' within the wider non-earlier temporal span represented by $\{\emptyset_2\}$.

(F) Applications

(1) He goes tomorrow.

$S \rightarrow NP + VP$

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

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

$Tdel \rightarrow NP + at present + v + Advt$

$Taf \rightarrow NP + v + at present + Advt$

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

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

(2) He will leave.

$\rightarrow NP + TTA + ATA + v$

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

$Tcar \rightarrow NP + at present + WILL + non-earlier + v$

$Taf \rightarrow NP + WILL + at present + v + non-earlier$

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

$\rightarrow he + WILL + go + leave$

---

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.

\[ \text{NP} + \text{TTA} + \text{ATA} + v + X \]

\[ \text{NP} + \text{at present} + \text{earlier} + v + X \]

\[ \text{Tcar} \quad \text{NP} + \text{at present} + \text{HAVE} + \text{earlier} + v + X \]

\[ \text{Taf} \quad \text{NP} + \text{HAVE} + \text{at present} + v + \text{earlier} + X \]

\[ \text{I} \quad \text{HAVE} + \varnothing_1 + \text{write} + D_2 + \text{the letter} \]

\[ \text{I have written the letter} \]

(4) I shall have gone there by next week.

\[ \text{NP} + \text{TTA} + \text{ATA}_1 + \text{ATA}_2 + v + X + \text{Advt} \]

\[ \text{NP} + \text{at present} + \text{later} + \text{earlier} + v + X + \text{Advt} \]

\[ \text{Tcar} \quad \text{NP} + \text{at present} + \text{WILL} + \text{non-earlier} + \text{HAVE} + \text{earlier} + v + X + \text{Advt} \]

\[ \text{Taf} \quad \text{NP} + \text{WILL} + \text{at present} + \text{HAVE} + \text{non-earlier} + v + \text{earlier} + X + \text{Advt} \]

\[ \text{I} \quad \text{WILL} + \varnothing_1 + \text{HAVE} + \varnothing_2 + \text{go} + D_2 + \text{there by next week} \]

\[ \text{I shall have gone there by next week} \]

(5) I shall have been working on it for some time.

\[ \text{NP} + \text{TTA} + \text{ATA}_1 + \text{ATA}_2 + \text{ATA}_3 + v + X + \text{Advt} \]

\[ \text{NP} + \text{at present} + \text{later} + \text{earlier} + \text{simultaneously} + v + X + \text{Advt} \]

\[ \text{Tcar} \quad \text{NP} + \text{at present} + \text{WILL} + \text{non-earlier} + \text{HAVE} + \text{earlier} + \text{BE} + \text{simultaneously} + v + X + \text{Advt} \]
Taf → NP + WILL + at present + HAVE + non-earlier +
   BE + earlier + v + simultaneously + X + Advt
   → I + WILL + Ø₁ + HAVE + Ø₂ + 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 → NP + HAVE + in the past + be + earlier + v + part + X
→ he + HAVE + D₁ + be + D₂ + treat + part + X
→ he had been treated badly

(8) He **HAS** gone home.

He has gone home. (Non-affirmative)
→ NP + TTA + ATA + v + X
→ NP + at present + earlier + v + X
Tcar → NP + at present + HAVE + earlier + v + X
Taffirm → NP + at present + HAVE + A + earlier + v + X
Taf → NP + HAVE + at present + A + v + earlier + X
→ he + HAVE + φ₁ + A + go + D₂ + home
→ he **has** gone home

(G) An Outline of
a **Transformational Analysis of**
the English Verb

(1) Phrase Structure Rules

Σ: # Sentence #
F : 1. S → NP + VP

---

Only 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 → Aux + {be + {substantive?}}

3. Aux → TTA + (ATA)_n
   (where n ≠ 3)

4. TTA → \{in the past\}
   \{at present\}

5. ATA → \{earlier \(\/ (ATA) + \_\_ + (ATA)\)\}
   \{simultaneously\(\/ (ATA) + (ATA) + \_\_\)\}

6. substantive → \{NP \(\_\_\)\}
   \{(Int) + Adj\}

7. verbal → \{Vb + substantive\} + (Adv)
   \{Vs + Adj\}
   \{Vh + NP\}

8. Adv → yesterday, next week, in the morning,
...\)

9. NP → John, the boy, he, both of them, ...

10. Adv-p → there, downstairs, in the house, ...

11. Int → very, rather, pretty, ...

12. Adj → good, sad, beautiful, ...

13. Vb → become, remain, ...

14. Vs → seem, look, taste, ...

15. Vh → have, cost, weigh, ...

(ii) **Transformational Structure Rules** (with some specific examples)

16. **Tdel:**

(ATA)

\[ NP + TTA + ATA + v + X + Advt \]

\[ \rightarrow NP + TTA + v + X + Advt \]

(when **ATA** and **Advt** have the same relational temporal value)

17. **Tdo:**

\[ \text{tense} \rightarrow \text{do} + \text{tense} \]

18. **Tpasive:**

\[ NP1 + TTA + (ATA) + VT + NP2 \]

\[ \rightarrow NP2 + TTA + (ATA) + \text{be} + \text{part} + VT + (\text{by} + NP1)^9 \]

19. **Tdel**:\(^{10}\)

\[ NP + \text{relative pronoun} + TTA + \text{be} + X \]

\[ \rightarrow NP + X \]

the boy + who + is + from Glasgow

the boy + from Glasgow"

20. **Tdel**:\(^{11}\)

\[ NP + \text{relative pronoun} + TTA + v + X \]

\[ \rightarrow NP + \text{ing} + v + X \]

people + who + own money

people owning money

---

\(^9\)This 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.

\(^{10}\)This transformational rule helps to explain the structure of minor tensemes in the form of verbid clusters; namely, that they are originally verbex clusters with tense having been deleted by a later transformational rule of **T-del** type.

\(^{11}\)Same as above footnote
21. T-nom$_{12}$

NP + TTA + \{be, verbal\} + X

$\rightarrow$ NP + ing + \{be, verbal\} + X

The novel is interesting
the novel being interesting

22. T-for$_{13}$

Matrix : it + TTA + (ATA) + be + Adj(1) + Comp(2)

Insert : NP(3) + TTA + (ATA)(4)v+ X(5)

Result $\rightarrow$ 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$_{14}$

Matrix : X(1) + NP(2) + Y(3)

Insert : NP1(4) + TTA + (ATA)(5) + v + X(6)

Result $\rightarrow$ 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.

---

$^{12}$This rule also produces verbids or minor tenses. It also shows that minor tenses, like major tenses, have Tense Temporal Adverbials in their deep structures.

$^{13}$Same as above footnote.

$^{14}$Same as above footnote.
24. **Tcar**: 
\[
\begin{align*}
\{ \text{earlier} \} & \rightarrow \{ \text{HAVE + earlier} \} \\
\{ \text{later} \} & \rightarrow \{ \text{WILL + non-earlier} \} \\
\{ \text{simultaneously} \} & \rightarrow \{ \text{BE + simultaneously} \} \\
\{ \text{non-earlier} \} & \rightarrow \{ \text{Modal + non-earlier} \}
\end{align*}
\]
(Where **Modal** is any modal verb except **WILL**)

25. **Tneg**: 
\[
15 \begin{align*}
\{ \text{TTA + carrier} \} & \rightarrow \{ \text{TTA + not} \} \\
\{ \text{TTA + v} \} & \rightarrow \{ \text{TTA + v + not} \}
\end{align*}
\]
(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**: 
\[
\begin{align*}
\{ \text{TTA + carrier} \} & \rightarrow \{ \text{TTA + carrier + A} \} \\
\{ \text{TTA + v} \} & \rightarrow \{ \text{TTA + v + A} \}
\end{align*}
\]

27. **Taf**:
\[
\begin{align*}
\{ \text{carrier} \} & \rightarrow \{ \text{v} \} \\
\{ \text{carrier} \} & \rightarrow \{ \text{v} \} \\
\text{af} & \rightarrow \{ \text{carrier} \} + \text{af}
\end{align*}
\]
(Where **af** is any **TTA**, **ATA**, or part)

(iii) **Morphophonemic Structure Rules**

16 This 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.

15 Same as footnote (9) above.
30. earlier $\rightarrow \{D_2\}$
31. non-earlier $\rightarrow \{\emptyset_2\}$
32. simultaneously $\rightarrow \{N\}$
33. $\{v\} + \{\{D_2\}\} \rightarrow \{\text{past participle form}\}$
    $\{\text{carrier}\} + \{\{\emptyset_2\}\} \rightarrow \{\text{infinitive form}\}$
34. $\{v\} + \{\{D_1\}\} \rightarrow \{\text{past form}\}$
    $\{\text{carrier}\} + \{\{\emptyset_1\}\} \rightarrow \{\text{present form}\}$
35. WILL + \{\emptyset_1\} $\rightarrow \{\text{will}\}$
    \{shall\}
36. WILL + \{D_1\} $\rightarrow \{\text{would}\}$
    \{should\}
37. Modal + \{\emptyset_1\} $\rightarrow \{\text{may, can, has/have to, ...}\}$
38. Modal + \{D_1\} $\rightarrow \{\text{might, could, had to, ...}\}$
39. HAVE + \{\emptyset_1\} $\rightarrow \{\text{has}\}$
    \{have\}
40. HAVE + \{D_1\} $\rightarrow \{\text{had}\}$
CHAPTER SIX
FUNCTIONS OF ENGLISH TENSEMES

(A) Introduction

A discussion on the functions, i.e. linguistic uses, of tensemes 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 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 \{0\} 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 \{0\}. 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 \{0\} 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 tensemes.

Temporal adverbials seem to play a vital role in determining the functions of tensemes 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 tensemes. 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

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in English. It thus seems that any description of the functions of tensemes 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 tensemes 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. 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.

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I. Test Two

(i) Objectives

1. To associate formal tensemes with notional categories of time. Thus we get a broader picture of the temporal functions and notional distribution of various tensemes and of the formal linguistic representations of the notional time structure in both tensemes and temporal adverbials.

2. To check the frequency of occurrences of each tenseme with the various notional categories of time. Higher frequencies of a given tenseme with specific notional categories represent major functions, or systematic functions, of that tenseme.

3. To observe the frequency of the representation of a certain notional category by various tensemes. This will provide us with even a broader view of the functions of various tensemes. By observing other linguistic phenomena, such as specification, a better picture of how tensemes can indicate identical or similar temporal reference can be obtained.

(ii) Procedure

1. The first objective underlies an important theoretical

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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 tenseme has in indicating different temporal references. Both the distribution and the frequency of tensemes are important in the analysis of the functions of those tensemes.

3. Another way of examining the functions of tensemes, perhaps complementary to that of (2) above, is to regard the notional categories as the basis of comparison and the tensemes 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

(1) Objectives

1. To base the identification of the temporal functions of tensemes on the associations of those tensemes with various adverbials of time.
2. To find out whether tensemes 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 tensemes.

(ii) Procedure

1. The first objective of this test has been realized by providing a number of native speakers of English with various tensemes and asking them to associate these tensemes 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 tensemes 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.  

(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

---

\(^4\)The 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. One hundred and twenty-four native speakers of British English have taken part in the two experimental tests already described. 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 tensemes so as to make

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5The actual sentences given by the informants for Test Three 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 tensemes 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 tensemes.

**TABLE 2**

<table>
<thead>
<tr>
<th>Numbers</th>
<th>Represented Tensemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>write/writes/is/am/are/...</td>
</tr>
<tr>
<td>3</td>
<td>have/has written</td>
</tr>
<tr>
<td>5</td>
<td>will/shall/may/can write</td>
</tr>
<tr>
<td>7</td>
<td>is/am/are/keep writing</td>
</tr>
<tr>
<td>9</td>
<td>have/has been writing</td>
</tr>
<tr>
<td>11</td>
<td>will/shall/may/can be writing</td>
</tr>
<tr>
<td>13</td>
<td>will/shall/may have written</td>
</tr>
<tr>
<td>15</td>
<td>will/shall/may have been writing</td>
</tr>
<tr>
<td>2</td>
<td>wrote</td>
</tr>
<tr>
<td>4</td>
<td>had written</td>
</tr>
<tr>
<td>6</td>
<td>would/should/might/could write</td>
</tr>
<tr>
<td>8</td>
<td>was/were writing</td>
</tr>
<tr>
<td>10</td>
<td>had been writing</td>
</tr>
<tr>
<td>12</td>
<td>would/should/might/could be writing</td>
</tr>
<tr>
<td>14</td>
<td>would/should/might/could have written</td>
</tr>
<tr>
<td>16</td>
<td>would/should/might/could have been writing</td>
</tr>
</tbody>
</table>
TABLE 3

1. Notional Cue: 'At a Specific Point in the FUTURE'
   Formal Cue : 'I (leave).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1 at 2.00</td>
<td>28.</td>
<td>5 -</td>
</tr>
<tr>
<td>2.</td>
<td>5 -</td>
<td>29.</td>
<td>5 -</td>
</tr>
<tr>
<td>3.</td>
<td>5 -</td>
<td>30.</td>
<td>11 tomorrow</td>
</tr>
<tr>
<td>4.</td>
<td>5 -</td>
<td>31.</td>
<td>5 at that particular time in the future</td>
</tr>
<tr>
<td>5.</td>
<td>5 -</td>
<td>32.</td>
<td>5 -</td>
</tr>
<tr>
<td>6.</td>
<td>5 -</td>
<td>33.</td>
<td>5 this evening</td>
</tr>
<tr>
<td>7.</td>
<td>5 -</td>
<td>34.</td>
<td>5 when the sun rises</td>
</tr>
<tr>
<td>8.</td>
<td>5 -</td>
<td>35.</td>
<td>5 -</td>
</tr>
<tr>
<td>9.</td>
<td>5 -</td>
<td>36.</td>
<td>5 -</td>
</tr>
<tr>
<td>10.</td>
<td>5 -</td>
<td>37.</td>
<td>5 then</td>
</tr>
<tr>
<td>11.</td>
<td>5 in an hour</td>
<td>38.</td>
<td>5 tomorrow</td>
</tr>
<tr>
<td>12.</td>
<td>5 at 2 o'clock</td>
<td>39.</td>
<td>5 -</td>
</tr>
<tr>
<td>13.</td>
<td>5 -</td>
<td>40.</td>
<td>5 -</td>
</tr>
<tr>
<td>14.</td>
<td>5 then</td>
<td>41.</td>
<td>5 in the morning</td>
</tr>
<tr>
<td>15.</td>
<td>5 soon</td>
<td>42.</td>
<td>5 tomorrow at A. M.</td>
</tr>
<tr>
<td>16.</td>
<td>5 then</td>
<td>43.</td>
<td>5 tomorrow</td>
</tr>
<tr>
<td>17.</td>
<td>5 -</td>
<td>44.</td>
<td>11 -</td>
</tr>
<tr>
<td>18.</td>
<td>5 tomorrow</td>
<td>45.</td>
<td>5 then</td>
</tr>
<tr>
<td>19.</td>
<td>5 tomorrow</td>
<td>46.</td>
<td>5 -</td>
</tr>
<tr>
<td>20.</td>
<td>5 at midday</td>
<td>47.</td>
<td>5 then</td>
</tr>
</tbody>
</table>

*Informants numbers 7 and 8 throughout all the tables of Test II are non-native speakers of English.
Table 3 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.</td>
<td>5 tomorrow</td>
<td>48.</td>
<td>5 in two hours</td>
</tr>
<tr>
<td>22.</td>
<td>5 tomorrow</td>
<td>49.</td>
<td>5 tomorrow morning</td>
</tr>
<tr>
<td>23.</td>
<td>1 tomorrow</td>
<td>50.</td>
<td>5 tomorrow</td>
</tr>
<tr>
<td>24.</td>
<td>5 -</td>
<td>51.</td>
<td>5 at 6 o'clock tonight</td>
</tr>
<tr>
<td>25.</td>
<td>5 then</td>
<td>52.</td>
<td>5 then</td>
</tr>
<tr>
<td>26.</td>
<td>5 -</td>
<td>53.</td>
<td>5 at 10 o'clock</td>
</tr>
<tr>
<td>27.</td>
<td>5 at 2 o'clock</td>
<td>54.</td>
<td>5 -</td>
</tr>
</tbody>
</table>

TABLE 4:

2. Notional Cue: 'At a Specific Point in the PAST'
Formal Cue: 'He (leave).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2 -</td>
<td>28.</td>
<td>2 -</td>
</tr>
<tr>
<td>2.</td>
<td>2 -</td>
<td>29.</td>
<td>2 -</td>
</tr>
<tr>
<td>3.</td>
<td>2 -</td>
<td>30.</td>
<td>2 then</td>
</tr>
<tr>
<td>4.</td>
<td>2 -</td>
<td>31.</td>
<td>2 then</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>2 -</td>
</tr>
<tr>
<td>6.</td>
<td>2 -</td>
<td>33.</td>
<td>2 this morning</td>
</tr>
<tr>
<td>7.</td>
<td>2 -</td>
<td>34.</td>
<td>2 -</td>
</tr>
</tbody>
</table>
### Table 4 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>2</td>
<td>35.</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>-</td>
<td>36.</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>2</td>
<td>37.</td>
<td>2</td>
</tr>
<tr>
<td>11.</td>
<td>-</td>
<td>38.</td>
<td>2</td>
</tr>
<tr>
<td>12.</td>
<td>2</td>
<td>39.</td>
<td>2</td>
</tr>
<tr>
<td>13.</td>
<td>-</td>
<td>40.</td>
<td>-</td>
</tr>
<tr>
<td>14.</td>
<td>2</td>
<td>41.</td>
<td>2</td>
</tr>
<tr>
<td>15.</td>
<td>2</td>
<td>42.</td>
<td>2</td>
</tr>
<tr>
<td>16.</td>
<td>2</td>
<td>43.</td>
<td>2</td>
</tr>
<tr>
<td>17.</td>
<td>-</td>
<td>44.</td>
<td>2</td>
</tr>
<tr>
<td>18.</td>
<td>2</td>
<td>45.</td>
<td>2</td>
</tr>
<tr>
<td>19.</td>
<td>2</td>
<td>46.</td>
<td>-</td>
</tr>
<tr>
<td>20.</td>
<td>2</td>
<td>47.</td>
<td>2</td>
</tr>
<tr>
<td>21.</td>
<td>2</td>
<td>48.</td>
<td>2</td>
</tr>
<tr>
<td>22.</td>
<td>2</td>
<td>49.</td>
<td>2</td>
</tr>
<tr>
<td>23.</td>
<td>2</td>
<td>50.</td>
<td>2</td>
</tr>
<tr>
<td>24.</td>
<td>-</td>
<td>51.</td>
<td>2</td>
</tr>
<tr>
<td>25.</td>
<td>2</td>
<td>52.</td>
<td>-</td>
</tr>
<tr>
<td>26.</td>
<td>-</td>
<td>53.</td>
<td>2</td>
</tr>
<tr>
<td>27.</td>
<td>-</td>
<td>54.</td>
<td>-</td>
</tr>
</tbody>
</table>
TABLE 5

3. Notional Cue: 'Right Now'
Formal Cue : 'They (read)'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>7 -</td>
<td>28.</td>
<td>7 -</td>
</tr>
<tr>
<td>2.</td>
<td>7 -</td>
<td>29.</td>
<td>7 -</td>
</tr>
<tr>
<td>3.</td>
<td>7 -</td>
<td>30.</td>
<td>7 at this moment</td>
</tr>
<tr>
<td>4.</td>
<td>7 -</td>
<td>31.</td>
<td>7 now</td>
</tr>
<tr>
<td>5.</td>
<td>7 -</td>
<td>32.</td>
<td>7 -</td>
</tr>
<tr>
<td>6.</td>
<td>7 -</td>
<td>33.</td>
<td>7 just now</td>
</tr>
<tr>
<td>7.</td>
<td>7 -</td>
<td>34.</td>
<td>7 -</td>
</tr>
<tr>
<td>8.</td>
<td>7 -</td>
<td>35.</td>
<td>7 -</td>
</tr>
<tr>
<td>9.</td>
<td>1 -</td>
<td>36.</td>
<td>7 -</td>
</tr>
<tr>
<td>10.</td>
<td>7 -</td>
<td>37.</td>
<td>7 -</td>
</tr>
<tr>
<td>11.</td>
<td>7 -</td>
<td>38.</td>
<td>7 now</td>
</tr>
<tr>
<td>12.</td>
<td>7 -</td>
<td>39.</td>
<td>7 at the moment</td>
</tr>
<tr>
<td>13.</td>
<td>7 -</td>
<td>40.</td>
<td>7 -</td>
</tr>
<tr>
<td>14.</td>
<td>7 -</td>
<td>41.</td>
<td>7 -</td>
</tr>
<tr>
<td>15.</td>
<td>7 -</td>
<td>42.</td>
<td>7 -</td>
</tr>
<tr>
<td>16.</td>
<td>7 at present</td>
<td>43.</td>
<td>7 -</td>
</tr>
<tr>
<td>17.</td>
<td>7 -</td>
<td>44.</td>
<td>7 -</td>
</tr>
<tr>
<td>18.</td>
<td>7 at this moment</td>
<td>45.</td>
<td>7 at this moment</td>
</tr>
<tr>
<td>19.</td>
<td>7 -</td>
<td>46.</td>
<td>7 -</td>
</tr>
<tr>
<td>20.</td>
<td>7 now</td>
<td>47.</td>
<td>7 at the moment</td>
</tr>
<tr>
<td>21.</td>
<td>7 at the moment</td>
<td>48.</td>
<td>7 -</td>
</tr>
<tr>
<td>22.</td>
<td>7 -</td>
<td>49.</td>
<td>7 -</td>
</tr>
<tr>
<td>23.</td>
<td>7 -</td>
<td>50.</td>
<td>7 right now</td>
</tr>
<tr>
<td>24.</td>
<td>7 -</td>
<td>51.</td>
<td>7 at this moment</td>
</tr>
<tr>
<td>25.</td>
<td>7 -</td>
<td>52.</td>
<td>7 at the moment</td>
</tr>
<tr>
<td>26.</td>
<td>7 -</td>
<td>53.</td>
<td>7 -</td>
</tr>
<tr>
<td>27.</td>
<td>7 -</td>
<td>54.</td>
<td>7 -</td>
</tr>
<tr>
<td>No.</td>
<td>Tenseme Adverbial/Note</td>
<td>No.</td>
<td>Tenseme Adverbial/Note</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------</td>
<td>-----</td>
<td>------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>1 -</td>
<td>28.</td>
<td>1 -</td>
</tr>
<tr>
<td>2.</td>
<td>7 (keep coming)</td>
<td>29.</td>
<td>7 always</td>
</tr>
<tr>
<td>3.</td>
<td>1 -</td>
<td>30.</td>
<td>1 still, every day</td>
</tr>
<tr>
<td>4.</td>
<td>1 -</td>
<td>31.</td>
<td>1 every day</td>
</tr>
<tr>
<td>5.</td>
<td>1 -</td>
<td>32.</td>
<td>1 -</td>
</tr>
<tr>
<td>6.</td>
<td>1 -</td>
<td>33.</td>
<td>1 often</td>
</tr>
<tr>
<td>7.</td>
<td>1 quite often</td>
<td>34.</td>
<td>1 often</td>
</tr>
<tr>
<td>8.</td>
<td>1 usually</td>
<td>35.</td>
<td>1 -</td>
</tr>
<tr>
<td>9.</td>
<td>1 -</td>
<td>36.</td>
<td>9 for some time</td>
</tr>
<tr>
<td>10.</td>
<td>1 -</td>
<td>37.</td>
<td>-</td>
</tr>
<tr>
<td>11.</td>
<td>1 always</td>
<td>38.</td>
<td>1 every day</td>
</tr>
<tr>
<td>12.</td>
<td>1 always</td>
<td>39.</td>
<td>1 every day</td>
</tr>
<tr>
<td>13.</td>
<td>1 often</td>
<td>40.</td>
<td>1 still</td>
</tr>
<tr>
<td>14.</td>
<td>1 every day</td>
<td>41.</td>
<td>1 regularly</td>
</tr>
<tr>
<td>15.</td>
<td>1 still</td>
<td>42.</td>
<td>1 every afternoon</td>
</tr>
<tr>
<td>16.</td>
<td>1 still, as usual</td>
<td>43.</td>
<td>1 regularly</td>
</tr>
<tr>
<td>17.</td>
<td>1 -</td>
<td>44.</td>
<td>1 still</td>
</tr>
<tr>
<td>18.</td>
<td>1 always</td>
<td>45.</td>
<td>1 still</td>
</tr>
<tr>
<td>19.</td>
<td>1 often</td>
<td>46.</td>
<td>1 -</td>
</tr>
<tr>
<td>20.</td>
<td>1 usually</td>
<td>47.</td>
<td>1 still</td>
</tr>
<tr>
<td>21.</td>
<td>1 often</td>
<td>48.</td>
<td>1 regularly</td>
</tr>
<tr>
<td>22.</td>
<td>1 -</td>
<td>49.</td>
<td>1 every day</td>
</tr>
<tr>
<td>23.</td>
<td>3 always</td>
<td>50.</td>
<td>1 always</td>
</tr>
<tr>
<td>24.</td>
<td>1 -</td>
<td>51.</td>
<td>1 every Tuesday</td>
</tr>
<tr>
<td>25.</td>
<td>1 still</td>
<td>52.</td>
<td>1 regularly</td>
</tr>
<tr>
<td>26.</td>
<td>1 every day</td>
<td>53.</td>
<td>1 every day</td>
</tr>
<tr>
<td>27.</td>
<td>1 normally</td>
<td>54.</td>
<td>1 -</td>
</tr>
</tbody>
</table>
TABLE 7

5. Notional Cue: 'After a Specific Point in the FUTURE'

Formal Cue: 'I (leave)'.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>7</td>
<td>after tea</td>
<td>28.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td>29.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td>30.</td>
<td>5</td>
<td>after tomorrow</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td>31.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>5</td>
<td>then</td>
<td>32.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td>33.</td>
<td>5</td>
<td>after I have seen him</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td>34.</td>
<td>5</td>
<td>after I have finished</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td>35.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>5</td>
<td></td>
<td>36.</td>
<td>11</td>
<td>then</td>
</tr>
<tr>
<td>10.</td>
<td>11</td>
<td></td>
<td>37.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td>38.</td>
<td>5</td>
<td>after he has gone</td>
</tr>
<tr>
<td>12.</td>
<td>5</td>
<td>after he does</td>
<td>39.</td>
<td>5</td>
<td>once I am finished</td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td></td>
<td>40.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>5</td>
<td>when he arrives</td>
<td>41.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>5</td>
<td>when he arrives</td>
<td>42.</td>
<td>5</td>
<td>after you arrive</td>
</tr>
<tr>
<td>16.</td>
<td>5</td>
<td>after 11 p.m.</td>
<td>43.</td>
<td>5</td>
<td>after tomorrow lunch</td>
</tr>
<tr>
<td>17.</td>
<td>5</td>
<td>then</td>
<td>44.</td>
<td>5</td>
<td>then</td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td></td>
<td>45.</td>
<td>5</td>
<td>then</td>
</tr>
<tr>
<td>19.</td>
<td>5</td>
<td>when I am ready to</td>
<td>46.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>5</td>
<td>after I have seen him</td>
<td>47.</td>
<td>5</td>
<td>after 10 o'clock tomorrow</td>
</tr>
<tr>
<td>21.</td>
<td>5</td>
<td>when I have completed my degree</td>
<td>48.</td>
<td>5</td>
<td>immediately afterwards</td>
</tr>
<tr>
<td>22.</td>
<td>5</td>
<td>after lunch</td>
<td>49.</td>
<td>5</td>
<td>when he arrives</td>
</tr>
<tr>
<td>23.</td>
<td>5</td>
<td>immediately after that</td>
<td>50.</td>
<td>5</td>
<td>afterwards</td>
</tr>
</tbody>
</table>

contd...
### Table 7 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td></td>
<td>51.</td>
<td>5 on the morning after the 16th May</td>
</tr>
<tr>
<td>25.</td>
<td></td>
<td>52.</td>
<td>5 after that</td>
</tr>
<tr>
<td>26.</td>
<td></td>
<td>53.</td>
<td>11 tomorrow after lunch</td>
</tr>
<tr>
<td>27.</td>
<td></td>
<td>54.</td>
<td>5 -</td>
</tr>
</tbody>
</table>

### Table 8

6. **Notional Cue:** 'Genral Past'

**Formal Cue:** 'We (come) by bus.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6 (used to come)</td>
<td>28.</td>
<td>2 -</td>
</tr>
<tr>
<td>2.</td>
<td>2 -</td>
<td>29.</td>
<td>2 usually</td>
</tr>
<tr>
<td>3.</td>
<td>2 -</td>
<td>30.</td>
<td>6 (used to come)</td>
</tr>
<tr>
<td>4.</td>
<td>2 -</td>
<td>31.</td>
<td>2 -</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>2 -</td>
</tr>
<tr>
<td>6.</td>
<td>2 -</td>
<td>33.</td>
<td>2 -</td>
</tr>
<tr>
<td>7.</td>
<td>2 -</td>
<td>34.</td>
<td>2 -</td>
</tr>
<tr>
<td>8.</td>
<td>6 (used to come), usually</td>
<td>35.</td>
<td>2 usually</td>
</tr>
<tr>
<td>9.</td>
<td>6 (used to come)</td>
<td>36.</td>
<td>2 -</td>
</tr>
<tr>
<td>10.</td>
<td>2 -</td>
<td>37.</td>
<td>6 (used to come)</td>
</tr>
<tr>
<td>11.</td>
<td>2 -</td>
<td>38.</td>
<td>2 every day</td>
</tr>
<tr>
<td>12.</td>
<td>6 (used to come)</td>
<td>39.</td>
<td>2 -</td>
</tr>
<tr>
<td>13.</td>
<td>6 (used to come)</td>
<td>40.</td>
<td>6 (used to come)</td>
</tr>
</tbody>
</table>

contd...
Table 8 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>2</td>
<td>41.</td>
<td>6  (would come), usually</td>
</tr>
<tr>
<td>15.</td>
<td>6 (used to come)</td>
<td>42.</td>
<td>6  (used to come)</td>
</tr>
<tr>
<td>16.</td>
<td>2 usually</td>
<td>43.</td>
<td>2  always</td>
</tr>
<tr>
<td>17.</td>
<td>2</td>
<td>44.</td>
<td>2  -</td>
</tr>
<tr>
<td>18.</td>
<td>6 (used to come)</td>
<td>45.</td>
<td>2  -</td>
</tr>
<tr>
<td>19.</td>
<td>2</td>
<td>46.</td>
<td>2  -</td>
</tr>
<tr>
<td>20.</td>
<td>2 usually</td>
<td>47.</td>
<td>2  -</td>
</tr>
<tr>
<td>21.</td>
<td>6 (used to come)</td>
<td>48.</td>
<td>2  usually</td>
</tr>
<tr>
<td>22.</td>
<td>6 (used to come)</td>
<td>49.</td>
<td>2  every day</td>
</tr>
<tr>
<td>23.</td>
<td>6 (would come)</td>
<td>50.</td>
<td>6  (would always come)</td>
</tr>
<tr>
<td>24.</td>
<td>2</td>
<td>51.</td>
<td>2  -</td>
</tr>
<tr>
<td>25.</td>
<td>2</td>
<td>52.</td>
<td>2  -</td>
</tr>
<tr>
<td>26.</td>
<td>2</td>
<td>53.</td>
<td>2  -</td>
</tr>
<tr>
<td>27.</td>
<td>2</td>
<td>54.</td>
<td>2  -</td>
</tr>
</tbody>
</table>

Table 9

7. Notional Cue: 'A General Fact'

Formal Cue: 'Light (travel) faster than sound.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1</td>
<td>28.</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>29.</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td>30.</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>1</td>
<td>31.</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>1</td>
<td>32.</td>
<td>1</td>
</tr>
</tbody>
</table>

contd...
Table 9 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>1 -</td>
<td>33.</td>
<td>1 -</td>
</tr>
<tr>
<td>7.</td>
<td>1 -</td>
<td>34.</td>
<td>1 -</td>
</tr>
<tr>
<td>8.</td>
<td>1 -</td>
<td>35.</td>
<td>1 -</td>
</tr>
<tr>
<td>9.</td>
<td>1 -</td>
<td>36.</td>
<td>1 -</td>
</tr>
<tr>
<td>10.</td>
<td>1 -</td>
<td>37.</td>
<td>1 -</td>
</tr>
<tr>
<td>11.</td>
<td>1 -</td>
<td>38.</td>
<td>1 -</td>
</tr>
<tr>
<td>12.</td>
<td>1 -</td>
<td>39.</td>
<td>1 -</td>
</tr>
<tr>
<td>13.</td>
<td>1 -</td>
<td>40.</td>
<td>1 -</td>
</tr>
<tr>
<td>14.</td>
<td>1 -</td>
<td>41.</td>
<td>1 -</td>
</tr>
<tr>
<td>15.</td>
<td>1 -</td>
<td>42.</td>
<td>1 -</td>
</tr>
<tr>
<td>16.</td>
<td>1 -</td>
<td>43.</td>
<td>1 -</td>
</tr>
<tr>
<td>17.</td>
<td>1 -</td>
<td>44.</td>
<td>1 -</td>
</tr>
<tr>
<td>18.</td>
<td>1 -</td>
<td>45.</td>
<td>1 -</td>
</tr>
<tr>
<td>19.</td>
<td>1 -</td>
<td>46.</td>
<td>1 -</td>
</tr>
<tr>
<td>20.</td>
<td>1 -</td>
<td>47.</td>
<td>1 -</td>
</tr>
<tr>
<td>21.</td>
<td>1 -</td>
<td>48.</td>
<td>1 -</td>
</tr>
<tr>
<td>22.</td>
<td>1 -</td>
<td>49.</td>
<td>1 -</td>
</tr>
<tr>
<td>23.</td>
<td>1 -</td>
<td>50.</td>
<td>1 -</td>
</tr>
<tr>
<td>24.</td>
<td>1 -</td>
<td>51.</td>
<td>1 -</td>
</tr>
<tr>
<td>25.</td>
<td>1 -</td>
<td>52.</td>
<td>1 -</td>
</tr>
<tr>
<td>26.</td>
<td>1 -</td>
<td>53.</td>
<td>1 -</td>
</tr>
<tr>
<td>27.</td>
<td>1 -</td>
<td>54.</td>
<td>1 -</td>
</tr>
</tbody>
</table>


TABLE 10

8. Notional Cue: 'Indefinitely before the Present Time'
Formal Cue: 'I (see) this film.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>3 -</td>
<td>28.</td>
<td>3 -</td>
</tr>
<tr>
<td>2.</td>
<td>3 -</td>
<td>29.</td>
<td>- -</td>
</tr>
<tr>
<td>3.</td>
<td>3 -</td>
<td>30.</td>
<td>14 (might have seen)</td>
</tr>
<tr>
<td>4.</td>
<td>14 (might have seen)</td>
<td>31.</td>
<td>3 -</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>2 once</td>
</tr>
<tr>
<td>6.</td>
<td>- -</td>
<td>33.</td>
<td>3 -</td>
</tr>
<tr>
<td>7.</td>
<td>3 -</td>
<td>34.</td>
<td>3 -</td>
</tr>
<tr>
<td>8.</td>
<td>3 -</td>
<td>35.</td>
<td>3 -</td>
</tr>
<tr>
<td>9.</td>
<td>3 -</td>
<td>36.</td>
<td>3 -</td>
</tr>
<tr>
<td>10.</td>
<td>3 just</td>
<td>37.</td>
<td>2 at some time or other</td>
</tr>
<tr>
<td>11.</td>
<td>2 -</td>
<td>38.</td>
<td>2 -</td>
</tr>
<tr>
<td>12.</td>
<td>3 -</td>
<td>39.</td>
<td>14 (might have seen)</td>
</tr>
<tr>
<td>13.</td>
<td>3 -</td>
<td>40.</td>
<td>- -</td>
</tr>
<tr>
<td>14.</td>
<td>3 -</td>
<td>41.</td>
<td>3 -</td>
</tr>
<tr>
<td>15.</td>
<td>2 once</td>
<td>42.</td>
<td>3 -</td>
</tr>
<tr>
<td>16.</td>
<td>- -</td>
<td>43.</td>
<td>2 sometime</td>
</tr>
<tr>
<td>17.</td>
<td>13 (may have seen)</td>
<td>44.</td>
<td>2 -</td>
</tr>
<tr>
<td>18.</td>
<td>2 -</td>
<td>45.</td>
<td>2 at some time</td>
</tr>
<tr>
<td>19.</td>
<td>13 (may have seen)</td>
<td>46.</td>
<td>2 -</td>
</tr>
<tr>
<td>20.</td>
<td>2 -</td>
<td>47.</td>
<td>- -</td>
</tr>
<tr>
<td>21.</td>
<td>13 (may have seen)</td>
<td>48.</td>
<td>13 (may have seen)</td>
</tr>
<tr>
<td>22.</td>
<td>- -</td>
<td>49.</td>
<td>3 -</td>
</tr>
</tbody>
</table>

contd...
Table 10 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
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</thead>
<tbody>
<tr>
<td>23.</td>
<td>3 -</td>
<td>50.</td>
<td>3 -</td>
</tr>
<tr>
<td>24.</td>
<td>14 (might have seen)</td>
<td>51.</td>
<td>2 -</td>
</tr>
<tr>
<td>25.</td>
<td>2 -</td>
<td>52.</td>
<td>3 -</td>
</tr>
<tr>
<td>26.</td>
<td>14 (might have seen)</td>
<td>53.</td>
<td>3 - before</td>
</tr>
<tr>
<td>27.</td>
<td>3 -</td>
<td>54.</td>
<td>2 -</td>
</tr>
</tbody>
</table>

TABLE 11

9. Notional Cue: 'Indefinitely in the FUTURE'

Formal Cue: 'She (arrive)'.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5 -</td>
<td>28.</td>
<td>5 sometime</td>
</tr>
<tr>
<td>2.</td>
<td>5 -</td>
<td>29.</td>
<td>6 (should arrive)</td>
</tr>
<tr>
<td>3.</td>
<td>5 -</td>
<td>30.</td>
<td>5 (may arrive), next week sometime</td>
</tr>
<tr>
<td>4.</td>
<td>5 (may arrive)</td>
<td>31.</td>
<td>- -</td>
</tr>
<tr>
<td>5.</td>
<td>5 -</td>
<td>32.</td>
<td>5 (may arrive)</td>
</tr>
<tr>
<td>6.</td>
<td>5 -</td>
<td>33.</td>
<td>11 sometime before midnight</td>
</tr>
<tr>
<td>7.</td>
<td>5 -</td>
<td>34.</td>
<td>5 -</td>
</tr>
<tr>
<td>8.</td>
<td>5 -</td>
<td>35.</td>
<td>6 (should arrive)</td>
</tr>
<tr>
<td>9.</td>
<td>5 -</td>
<td>36.</td>
<td>5 -</td>
</tr>
<tr>
<td>10.</td>
<td>5 -</td>
<td>37.</td>
<td>5 at some time</td>
</tr>
</tbody>
</table>

contd...
Table 11 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme</th>
<th>Adverbial/Note</th>
<th>No.</th>
<th>Tenseme</th>
<th>Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>5</td>
<td>-</td>
<td>38.</td>
<td>5</td>
<td>soon</td>
</tr>
<tr>
<td>12.</td>
<td>11</td>
<td>-</td>
<td>39.</td>
<td>6</td>
<td>(could arrive)</td>
</tr>
<tr>
<td>13.</td>
<td>11</td>
<td>sometime</td>
<td>40.</td>
<td>5</td>
<td>at sometime in the future</td>
</tr>
<tr>
<td>14.</td>
<td>5</td>
<td>sometime</td>
<td>41.</td>
<td>6</td>
<td>(might arrive)</td>
</tr>
<tr>
<td>15.</td>
<td>5</td>
<td>(may arrive), soon</td>
<td>42.</td>
<td>5</td>
<td>soon</td>
</tr>
<tr>
<td>16.</td>
<td>5</td>
<td>-</td>
<td>43.</td>
<td>5</td>
<td>sometime</td>
</tr>
<tr>
<td>17.</td>
<td>5</td>
<td>(may arrive)</td>
<td>44.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>18.</td>
<td>5</td>
<td>soon</td>
<td>45.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>19.</td>
<td>5</td>
<td>(may arrive)</td>
<td>46.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>20.</td>
<td>5</td>
<td>sometime</td>
<td>47.</td>
<td>6</td>
<td>(could arrive), tomorrow</td>
</tr>
<tr>
<td>21.</td>
<td>5</td>
<td>(may arrive), tomorrow</td>
<td>48.</td>
<td>5</td>
<td>(may arrive)</td>
</tr>
<tr>
<td>22.</td>
<td>5</td>
<td>(may arrive)</td>
<td>49.</td>
<td>5</td>
<td>sometime</td>
</tr>
<tr>
<td>23.</td>
<td>11</td>
<td>sometime</td>
<td>50.</td>
<td>5</td>
<td>sometime</td>
</tr>
<tr>
<td>24.</td>
<td>5</td>
<td>(may arrive)</td>
<td>51.</td>
<td>5</td>
<td>later</td>
</tr>
<tr>
<td>25.</td>
<td>11</td>
<td>(may be arriving)</td>
<td>52.</td>
<td>5</td>
<td>sometime</td>
</tr>
<tr>
<td>26.</td>
<td>5</td>
<td>(may arrive)</td>
<td>53.</td>
<td>11</td>
<td>sometime tomorrow</td>
</tr>
<tr>
<td>27.</td>
<td>11</td>
<td>-</td>
<td>54.</td>
<td>5</td>
<td>-</td>
</tr>
</tbody>
</table>
TABLE 12

10. **Notional Cue**: 'Before I met you.'
**Formal Cue**: 'I (talk) to him.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>8</td>
<td>28.</td>
</tr>
<tr>
<td>2.</td>
<td>2</td>
<td>29. 8 just</td>
</tr>
<tr>
<td>3.</td>
<td>8</td>
<td>30. 8 before I met you</td>
</tr>
<tr>
<td>4.</td>
<td>8</td>
<td>31. 2 -</td>
</tr>
<tr>
<td>5.</td>
<td>8</td>
<td>32. 8 a moment ago</td>
</tr>
<tr>
<td>6.</td>
<td>8</td>
<td>33. 8 -</td>
</tr>
<tr>
<td>7.</td>
<td>8 before I met you</td>
<td>34. 2 -</td>
</tr>
<tr>
<td>8.</td>
<td>2</td>
<td>35. - -</td>
</tr>
<tr>
<td>9.</td>
<td>2</td>
<td>36. 10 -</td>
</tr>
<tr>
<td>10.</td>
<td>- -</td>
<td>37. 8 beforehand</td>
</tr>
<tr>
<td>11.</td>
<td>8</td>
<td>38. 2 before I met you</td>
</tr>
<tr>
<td>12.</td>
<td>8</td>
<td>39. 8 -</td>
</tr>
<tr>
<td>13.</td>
<td>8 before that</td>
<td>40. 2 -</td>
</tr>
<tr>
<td>14.</td>
<td>8</td>
<td>41. 8 just, before I met you</td>
</tr>
<tr>
<td>15.</td>
<td>6 (used to talk), before</td>
<td>42. 8 before I met you</td>
</tr>
<tr>
<td>16.</td>
<td>2</td>
<td>43. 8 before I met you</td>
</tr>
<tr>
<td>17.</td>
<td>8</td>
<td>44. 8 -</td>
</tr>
<tr>
<td>18.</td>
<td>2 before I met you</td>
<td>45. 10 already</td>
</tr>
<tr>
<td>19.</td>
<td>8</td>
<td>46. 8 -</td>
</tr>
</tbody>
</table>

contd...
Table 12 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>2 before I met you</td>
<td>47.</td>
<td>8 -</td>
</tr>
<tr>
<td>21.</td>
<td>8 at that moment</td>
<td>48.</td>
<td>-</td>
</tr>
<tr>
<td>22.</td>
<td>8 -</td>
<td>49.</td>
<td>8 -</td>
</tr>
<tr>
<td>23.</td>
<td>- -</td>
<td>50.</td>
<td>2 earlier before I met you</td>
</tr>
<tr>
<td>24.</td>
<td>10 -</td>
<td>51.</td>
<td>2 earlier before I met you</td>
</tr>
<tr>
<td>25.</td>
<td>2 before I met you</td>
<td>52.</td>
<td>8 just before I met you</td>
</tr>
<tr>
<td>26.</td>
<td>2 -</td>
<td>53.</td>
<td>4 -</td>
</tr>
<tr>
<td>27.</td>
<td>8 -</td>
<td>54.</td>
<td>10 -</td>
</tr>
</tbody>
</table>

TABLE 13

11. Notional Cue: 'Before a Specific Point in the FUTURE'
Formal Cue: 'John (finish).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5 -</td>
<td>28.</td>
<td>13 before then</td>
</tr>
<tr>
<td>2.</td>
<td>13 -</td>
<td>29.</td>
<td>5 (will be finished)</td>
</tr>
<tr>
<td>3.</td>
<td>13 -</td>
<td>30.</td>
<td>5 (will be finished), before tomorrow</td>
</tr>
<tr>
<td>4.</td>
<td>5 soon, early</td>
<td>31.</td>
<td>5 (will be finished)</td>
</tr>
<tr>
<td>No.</td>
<td>Tenseme</td>
<td>Adverbial/Note</td>
<td>No.</td>
</tr>
<tr>
<td>-----</td>
<td>---------</td>
<td>------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>5.</td>
<td>5</td>
<td>-</td>
<td>32.</td>
</tr>
<tr>
<td>6.</td>
<td>1</td>
<td>-</td>
<td>33.</td>
</tr>
<tr>
<td>7.</td>
<td>13</td>
<td>-</td>
<td>34.</td>
</tr>
<tr>
<td>8.</td>
<td>13</td>
<td>-</td>
<td>35.</td>
</tr>
<tr>
<td>9.</td>
<td>5</td>
<td>-</td>
<td>36.</td>
</tr>
<tr>
<td>10.</td>
<td>5</td>
<td>-</td>
<td>37.</td>
</tr>
<tr>
<td>11.</td>
<td>13</td>
<td>-</td>
<td>38.</td>
</tr>
<tr>
<td>12.</td>
<td>13</td>
<td>before 2 o'clock</td>
<td>39.</td>
</tr>
<tr>
<td>13.</td>
<td>13</td>
<td>by then</td>
<td>40.</td>
</tr>
<tr>
<td>14.</td>
<td>5</td>
<td>before then</td>
<td>41.</td>
</tr>
<tr>
<td>15.</td>
<td>6</td>
<td>(should finish), before five</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>5</td>
<td>before he goes out</td>
<td>43.</td>
</tr>
<tr>
<td>17.</td>
<td>13</td>
<td>-</td>
<td>44.</td>
</tr>
<tr>
<td>18.</td>
<td>5</td>
<td>before 4 o'clock</td>
<td>45.</td>
</tr>
<tr>
<td>19.</td>
<td>13</td>
<td>before I leave</td>
<td>46.</td>
</tr>
<tr>
<td>20.</td>
<td>5</td>
<td>before 2 o'clock</td>
<td>47.</td>
</tr>
<tr>
<td>21.</td>
<td>13</td>
<td>before the news comes on</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>5</td>
<td>(will be finished)</td>
<td>48.</td>
</tr>
<tr>
<td>23.</td>
<td>13</td>
<td>by then</td>
<td>49.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50.</td>
</tr>
</tbody>
</table>

contd...
Table 13 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>13</td>
<td>51.</td>
<td>the night before</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
<td>the 16th May</td>
</tr>
<tr>
<td>25.</td>
<td>13</td>
<td>52.</td>
<td>(will be finished), by</td>
</tr>
<tr>
<td></td>
<td>by 6 p.m.</td>
<td></td>
<td>then</td>
</tr>
<tr>
<td>26.</td>
<td>5</td>
<td>53.</td>
<td>(must finish), before</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
<td>that</td>
</tr>
<tr>
<td>27.</td>
<td>13</td>
<td>54.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>before the bell</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>rings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 14

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2</td>
<td>28.</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>4</td>
<td>29.</td>
<td>14</td>
</tr>
<tr>
<td>3.</td>
<td>4</td>
<td>30.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
<td>before yesterday</td>
</tr>
<tr>
<td>4.</td>
<td>4</td>
<td>31.</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>2</td>
<td>32.</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>2</td>
<td>33.</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>2</td>
<td>34.</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>4</td>
<td>35.</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>2</td>
<td>36.</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>2</td>
<td>37.</td>
<td>4</td>
</tr>
</tbody>
</table>

12. **Notional Cue:** 'Before a Specific Point in the PAST'
   **Formal Cue:** 'She (leave).'
Table 14 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>4 -</td>
<td>38.</td>
<td>2 before the train came</td>
</tr>
<tr>
<td>12.</td>
<td>4 before I arrived</td>
<td>39.</td>
<td>- -</td>
</tr>
<tr>
<td>13.</td>
<td>4 before then</td>
<td>40.</td>
<td>2 before then</td>
</tr>
<tr>
<td>14.</td>
<td>4 -</td>
<td>41.</td>
<td>4 previously</td>
</tr>
<tr>
<td>15.</td>
<td>2 before John arrived</td>
<td>42.</td>
<td>4 before we arrived</td>
</tr>
<tr>
<td>16.</td>
<td>2 before the train pulled out</td>
<td>43.</td>
<td>4 by 4 o'clock yesterday</td>
</tr>
<tr>
<td>17.</td>
<td>4 -</td>
<td>44.</td>
<td>4 already</td>
</tr>
<tr>
<td>18.</td>
<td>2 before he arrived</td>
<td>45.</td>
<td>4 already</td>
</tr>
<tr>
<td>19.</td>
<td>2 before I did</td>
<td>46.</td>
<td>4 -</td>
</tr>
<tr>
<td>20.</td>
<td>2 before you came</td>
<td>47.</td>
<td>2 before I could see her</td>
</tr>
<tr>
<td>21.</td>
<td>2 before I had arrived</td>
<td>48.</td>
<td>4 before then</td>
</tr>
<tr>
<td>22.</td>
<td>2 before you came</td>
<td>49.</td>
<td>4 by then</td>
</tr>
<tr>
<td>23.</td>
<td>4 already</td>
<td>50.</td>
<td>2 earlier than I did</td>
</tr>
<tr>
<td>24.</td>
<td>4 -</td>
<td>51.</td>
<td>2 before the 16th May</td>
</tr>
<tr>
<td>25.</td>
<td>4 by then</td>
<td>52.</td>
<td>4 by that time, already</td>
</tr>
<tr>
<td>26.</td>
<td>4 -</td>
<td>53.</td>
<td>2 before 2 o'clock</td>
</tr>
<tr>
<td>27.</td>
<td>4 -</td>
<td>54.</td>
<td>4 -</td>
</tr>
</tbody>
</table>
TABLE 15

13. **Notional Cue:** 'Two Hours after we Parted'

**Formal Cue:** 'I (meet) him.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2 again</td>
<td>28.</td>
<td>2 again later</td>
</tr>
<tr>
<td>2.</td>
<td>2 -</td>
<td>29.</td>
<td>2 -</td>
</tr>
<tr>
<td>3.</td>
<td>2 -</td>
<td>30.</td>
<td>2 two hours after we parted</td>
</tr>
<tr>
<td>4.</td>
<td>2 -</td>
<td>31.</td>
<td>2 -</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>2 later</td>
</tr>
<tr>
<td>6.</td>
<td>2 -</td>
<td>33.</td>
<td>2 two hours after we parted</td>
</tr>
<tr>
<td>7.</td>
<td>2 two hours after we parted</td>
<td>34.</td>
<td>2 -</td>
</tr>
<tr>
<td>8.</td>
<td>2 two hours after we parted</td>
<td>35.</td>
<td>2 once more</td>
</tr>
<tr>
<td>9.</td>
<td>2 two hours after we parted</td>
<td>36.</td>
<td>2 -</td>
</tr>
<tr>
<td>10.</td>
<td>2 again</td>
<td>37.</td>
<td>2 two hours later</td>
</tr>
<tr>
<td>11.</td>
<td>2 again two hours later</td>
<td>38.</td>
<td>2 two hours after we parted</td>
</tr>
<tr>
<td>12.</td>
<td>2 -</td>
<td>39.</td>
<td>2 two hours later</td>
</tr>
<tr>
<td>13.</td>
<td>2 -</td>
<td>40.</td>
<td>2 two hours later</td>
</tr>
<tr>
<td>14.</td>
<td>2 -</td>
<td>41.</td>
<td>2 again two hours after we parted</td>
</tr>
<tr>
<td>15.</td>
<td>2 later</td>
<td>42.</td>
<td>2 again</td>
</tr>
<tr>
<td>16.</td>
<td>2 again</td>
<td>43.</td>
<td>2 two hours after we parted</td>
</tr>
<tr>
<td>17.</td>
<td>2 -</td>
<td>44.</td>
<td>2 -</td>
</tr>
</tbody>
</table>

*contd...*
Table 15 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.</td>
<td>2 two hours after we parted</td>
<td>45.</td>
<td>2 -</td>
</tr>
<tr>
<td>19.</td>
<td>2 in the evening after we parted</td>
<td>46.</td>
<td>2 -</td>
</tr>
<tr>
<td>20.</td>
<td>2 two hours after we parted</td>
<td>47.</td>
<td>2 -</td>
</tr>
<tr>
<td>21.</td>
<td>2 in the evening after we parted</td>
<td>48.</td>
<td>2 -</td>
</tr>
<tr>
<td>22.</td>
<td>2 later</td>
<td>49.</td>
<td>2 -</td>
</tr>
<tr>
<td>23.</td>
<td>2 later</td>
<td>50.</td>
<td>2 again two hours after we parted</td>
</tr>
<tr>
<td>24.</td>
<td>2 then</td>
<td>51.</td>
<td>2 two hours after we parted</td>
</tr>
<tr>
<td>25.</td>
<td>2 -</td>
<td>52.</td>
<td>2 two hours after we parted, later</td>
</tr>
<tr>
<td>26.</td>
<td>2 -</td>
<td>53.</td>
<td>2 -</td>
</tr>
<tr>
<td>27.</td>
<td>2 -</td>
<td>54.</td>
<td>2 -</td>
</tr>
</tbody>
</table>

TABLE 16

14. Notional Cue: 'Right Now'

Formal Cue : 'He almost (finish).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1 (is finished)</td>
<td>28.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>2.</td>
<td>3 -</td>
<td>29.</td>
<td>7 -</td>
</tr>
<tr>
<td>3.</td>
<td>3 -</td>
<td>30.</td>
<td>1 (is finished)</td>
</tr>
</tbody>
</table>

*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.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>3</td>
<td>31.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>5.</td>
<td>1 (is finished)</td>
<td>32.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>6.</td>
<td>-</td>
<td>33.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>7.</td>
<td>3 right now</td>
<td>34.</td>
<td>3</td>
</tr>
<tr>
<td>8.</td>
<td>3</td>
<td>35.</td>
<td>3</td>
</tr>
<tr>
<td>9.</td>
<td>1 (is finished)</td>
<td>36.</td>
<td>3</td>
</tr>
<tr>
<td>10.</td>
<td>1 (is finished)</td>
<td>37.</td>
<td>3</td>
</tr>
<tr>
<td>11.</td>
<td>1 (is practically finished)</td>
<td>38.</td>
<td>3</td>
</tr>
<tr>
<td>12.</td>
<td>3</td>
<td>39.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>13.</td>
<td>3</td>
<td>40.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>14.</td>
<td>1 (is finished)</td>
<td>41.</td>
<td>3</td>
</tr>
<tr>
<td>15.</td>
<td>1 (is finished)</td>
<td>42.</td>
<td>3</td>
</tr>
<tr>
<td>16.</td>
<td>3</td>
<td>43.</td>
<td>3</td>
</tr>
<tr>
<td>17.</td>
<td>1 (is finished)</td>
<td>44.</td>
<td>7</td>
</tr>
<tr>
<td>18.</td>
<td>1 (is finished)</td>
<td>45.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>19.</td>
<td>1 (is finished)</td>
<td>46.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>20.</td>
<td>1 (is finished), now</td>
<td>47.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>21.</td>
<td>1 (is finished)</td>
<td>48.</td>
<td>3</td>
</tr>
<tr>
<td>22.</td>
<td>1 (is finished)</td>
<td>49.</td>
<td>3</td>
</tr>
<tr>
<td>23.</td>
<td>3</td>
<td>50.</td>
<td>1 (is finished), right now</td>
</tr>
<tr>
<td>24.</td>
<td>3</td>
<td>51.</td>
<td>7 just</td>
</tr>
<tr>
<td>25.</td>
<td>3</td>
<td>52.</td>
<td>1 (is finished)</td>
</tr>
<tr>
<td>26.</td>
<td>3</td>
<td>53.</td>
<td>-</td>
</tr>
<tr>
<td>27.</td>
<td>3</td>
<td>54.</td>
<td>7</td>
</tr>
</tbody>
</table>
TABLE 17

15. **Notional Cue**: 'An Old Habit that is no longer the Case'

**Formal Cue**: 'He (smoke) a lot.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2 -</td>
<td>28.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>2.</td>
<td>6 (used to smoke)</td>
<td>29.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>3.</td>
<td>6 (used to smoke)</td>
<td>30.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>4.</td>
<td>6 (used to smoke)</td>
<td>31.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>6.</td>
<td>6 (used to smoke)</td>
<td>33.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>7.</td>
<td>6 (used to smoke)</td>
<td>34.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>8.</td>
<td>6 (used to smoke)</td>
<td>35.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>9.</td>
<td>2 -</td>
<td>36.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>10.</td>
<td>6 (used to smoke)</td>
<td>37.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>11.</td>
<td>6 (used to smoke)</td>
<td>38.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>12.</td>
<td>6 (used to smoke)</td>
<td>39.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>13.</td>
<td>6 (used to smoke)</td>
<td>40.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>14.</td>
<td>6 (used to smoke)</td>
<td>41.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>15.</td>
<td>- -</td>
<td>42.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>16.</td>
<td>6 (used to smoke)</td>
<td>43.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>17.</td>
<td>6 (used to smoke)</td>
<td>44.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>18.</td>
<td>6 (used to smoke)</td>
<td>45.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>19.</td>
<td>6 (used to smoke)</td>
<td>46.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>20.</td>
<td>6 (used to smoke)</td>
<td>47.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>21.</td>
<td>6 (used to smoke)</td>
<td>48.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>22.</td>
<td>6 (used to smoke)</td>
<td>49.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>23.</td>
<td>6 (used to smoke)</td>
<td>50.</td>
<td>6 (used to smoke)</td>
</tr>
</tbody>
</table>

contd...
Table 17 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>6 (used to smoke)</td>
<td>51.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>25.</td>
<td>6 (used to smoke)</td>
<td>52.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>26.</td>
<td>6 (used to smoke)</td>
<td>53.</td>
<td>6 (used to smoke)</td>
</tr>
<tr>
<td>27.</td>
<td>6 (used to smoke)</td>
<td>54.</td>
<td>(2 (used to smoke)</td>
</tr>
</tbody>
</table>

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.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6 (would arrive)</td>
<td>28.</td>
<td>2 -</td>
</tr>
<tr>
<td>2.</td>
<td>2 -</td>
<td>29.</td>
<td>2 -</td>
</tr>
<tr>
<td>3.</td>
<td>2 -</td>
<td>30.</td>
<td>2 later</td>
</tr>
<tr>
<td>4.</td>
<td>2 -</td>
<td>31.</td>
<td>- -</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>2 -</td>
</tr>
<tr>
<td>6.</td>
<td>2 -</td>
<td>33.</td>
<td>2 -</td>
</tr>
<tr>
<td>7.</td>
<td>2 then</td>
<td>34.</td>
<td>2 -</td>
</tr>
<tr>
<td>8.</td>
<td>2 -</td>
<td>35.</td>
<td>2 -</td>
</tr>
<tr>
<td>9.</td>
<td>2 -</td>
<td>36.</td>
<td>2 subsequently</td>
</tr>
<tr>
<td>10.</td>
<td>2 -</td>
<td>37.</td>
<td>2 -</td>
</tr>
<tr>
<td>11.</td>
<td>2 -</td>
<td>38.</td>
<td>2 -</td>
</tr>
<tr>
<td>12.</td>
<td>2 -</td>
<td>39.</td>
<td>2 -</td>
</tr>
</tbody>
</table>

contd...
Table 18 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.</td>
<td>2 -</td>
<td>40.</td>
<td>2 -</td>
</tr>
<tr>
<td>14.</td>
<td>2 -</td>
<td>41.</td>
<td>2 then</td>
</tr>
<tr>
<td>15.</td>
<td>6 (were to arrive)</td>
<td>42.</td>
<td>2 -</td>
</tr>
<tr>
<td>16.</td>
<td>2 -</td>
<td>43.</td>
<td>-</td>
</tr>
<tr>
<td>17.</td>
<td>2 -</td>
<td>44.</td>
<td>2 -</td>
</tr>
<tr>
<td>18.</td>
<td>2 -</td>
<td>45.</td>
<td>2 -</td>
</tr>
<tr>
<td>19.</td>
<td>2 -</td>
<td>46.</td>
<td>-</td>
</tr>
<tr>
<td>20.</td>
<td>2 -</td>
<td>47.</td>
<td>-</td>
</tr>
<tr>
<td>21.</td>
<td>2 two hours later</td>
<td>48.</td>
<td>6 (were to arrive)</td>
</tr>
<tr>
<td>22.</td>
<td>2 -</td>
<td>49.</td>
<td>2 -</td>
</tr>
<tr>
<td>23.</td>
<td>2 later</td>
<td>50.</td>
<td>-</td>
</tr>
<tr>
<td>24.</td>
<td>2 then</td>
<td>51.</td>
<td>2 -</td>
</tr>
<tr>
<td>25.</td>
<td>2 -</td>
<td>52.</td>
<td>2 eventually</td>
</tr>
<tr>
<td>26.</td>
<td>2 -</td>
<td>53.</td>
<td>2 -</td>
</tr>
<tr>
<td>27.</td>
<td>2 -</td>
<td>54.</td>
<td>2 -</td>
</tr>
</tbody>
</table>

**TABLE 19**

17. **Notional Cue:** 'When I arrived'

**Formal Cue:** 'He (study).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>8 -</td>
<td>28.</td>
<td>8 -</td>
</tr>
<tr>
<td>2.</td>
<td>8 -</td>
<td>29.</td>
<td>8 -</td>
</tr>
<tr>
<td>3.</td>
<td>8 -</td>
<td>30.</td>
<td>8 when I arrived</td>
</tr>
<tr>
<td>4.</td>
<td>8 -</td>
<td>31.</td>
<td>8 when I arrived</td>
</tr>
</tbody>
</table>

contd...
Table 19 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>8</td>
<td></td>
<td>32</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td></td>
<td>33</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>when I arrived</td>
<td>34</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td></td>
<td>35</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td></td>
<td>36</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>8</td>
<td></td>
<td>37</td>
<td>8</td>
<td>at that moment</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td></td>
<td>38</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>12</td>
<td>8</td>
<td></td>
<td>39</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>at that point</td>
<td>40</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>8</td>
<td></td>
<td>41</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>8</td>
<td>when I arrived</td>
<td>42</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td></td>
<td>43</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>17</td>
<td>8</td>
<td></td>
<td>44</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>8</td>
<td>when I arrived</td>
<td>45</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>8</td>
<td>when I arrived</td>
<td>46</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>8</td>
<td>when I arrived</td>
<td>47</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>8</td>
<td>when I arrived</td>
<td>48</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>8</td>
<td>when I arrived</td>
<td>49</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>23</td>
<td>8</td>
<td></td>
<td>50</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>24</td>
<td>8</td>
<td></td>
<td>51</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>25</td>
<td>8</td>
<td>when I arrived</td>
<td>52</td>
<td>8</td>
<td>when I arrived</td>
</tr>
<tr>
<td>26</td>
<td>8</td>
<td></td>
<td>53</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>8</td>
<td></td>
<td>54</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 20

18. **Notional Cue:** 'Nowadays'

*Formal Cue*: 'He (work) hard.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>7 -</td>
<td>28.</td>
<td>1 -</td>
</tr>
<tr>
<td>2.</td>
<td>1 -</td>
<td>29.</td>
<td>1 -</td>
</tr>
<tr>
<td>3.</td>
<td>1 -</td>
<td>30.</td>
<td>1 nowadays</td>
</tr>
<tr>
<td>4.</td>
<td>1 -</td>
<td>31.</td>
<td>1 -</td>
</tr>
<tr>
<td>5.</td>
<td>1 -</td>
<td>32.</td>
<td>1 -</td>
</tr>
<tr>
<td>6.</td>
<td>7 -</td>
<td>33.</td>
<td>1 nowadays</td>
</tr>
<tr>
<td>7.</td>
<td>- -</td>
<td>34.</td>
<td>1 -</td>
</tr>
<tr>
<td>8.</td>
<td>7 -</td>
<td>35.</td>
<td>1 -</td>
</tr>
<tr>
<td>9.</td>
<td>1 -</td>
<td>36.</td>
<td>1 -</td>
</tr>
<tr>
<td>10.</td>
<td>7 -</td>
<td>37.</td>
<td>11 (does work), these days</td>
</tr>
<tr>
<td>11.</td>
<td>1 -</td>
<td>38.</td>
<td>1 nowadays</td>
</tr>
<tr>
<td>12.</td>
<td>- -</td>
<td>39.</td>
<td>7 -</td>
</tr>
<tr>
<td>13.</td>
<td>1 nowadays</td>
<td>40.</td>
<td>1 nowadays</td>
</tr>
<tr>
<td>14.</td>
<td>1 now</td>
<td>41.</td>
<td>1 nowadays</td>
</tr>
<tr>
<td>15.</td>
<td>7 these days</td>
<td>42.</td>
<td>1 always, these days</td>
</tr>
<tr>
<td>16.</td>
<td>1 -</td>
<td>43.</td>
<td>1 nowadays</td>
</tr>
<tr>
<td>17.</td>
<td>1 -</td>
<td>44.</td>
<td>1 -</td>
</tr>
<tr>
<td>18.</td>
<td>1 nowadays</td>
<td>45.</td>
<td>1 now</td>
</tr>
<tr>
<td>19.</td>
<td>1 now</td>
<td>46.</td>
<td>1 -</td>
</tr>
<tr>
<td>20.</td>
<td>1 nowadays</td>
<td>47.</td>
<td>1 -</td>
</tr>
<tr>
<td>21.</td>
<td>1 nowadays</td>
<td>48.</td>
<td>1 now</td>
</tr>
<tr>
<td>22.</td>
<td>1 nowadays</td>
<td>49.</td>
<td>1 -</td>
</tr>
</tbody>
</table>

contd...
### Table 20 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.</td>
<td>1</td>
<td>50.</td>
<td>1</td>
</tr>
<tr>
<td>24.</td>
<td>1</td>
<td>51.</td>
<td>1</td>
</tr>
<tr>
<td>25.</td>
<td>1</td>
<td>52.</td>
<td>1</td>
</tr>
<tr>
<td>26.</td>
<td>1</td>
<td>53.</td>
<td>1</td>
</tr>
<tr>
<td>27.</td>
<td>1</td>
<td>54.</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 21

19. **Notional Cue**: 'Indefinitely After the Present Moment'

**Formal Cue**: 'He (leave).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>7</td>
<td>28.</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>5</td>
<td>29.</td>
<td>6 (should leave)</td>
</tr>
<tr>
<td>3.</td>
<td>11</td>
<td>30.</td>
<td>5 (may leave), sometime</td>
</tr>
<tr>
<td>4.</td>
<td>5 (ought to leave)</td>
<td>31.</td>
<td>7 (is going to leave)</td>
</tr>
<tr>
<td>5.</td>
<td>5 sometime</td>
<td>32.</td>
<td>5 sometime</td>
</tr>
<tr>
<td>6.</td>
<td>11</td>
<td>33.</td>
<td>7 (is going to leave), later</td>
</tr>
<tr>
<td>7.</td>
<td>5</td>
<td>34.</td>
<td>5 -</td>
</tr>
<tr>
<td>8.</td>
<td>5</td>
<td>35.</td>
<td>-</td>
</tr>
</tbody>
</table>

contd...
Table 21 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>5 -</td>
<td>36.</td>
<td>5 soon</td>
</tr>
<tr>
<td>10.</td>
<td>1 (is ...to leave) just about</td>
<td>37.</td>
<td>7 in ten minutes</td>
</tr>
<tr>
<td>11.</td>
<td>11 -</td>
<td>38.</td>
<td>7 (is going to leave)</td>
</tr>
<tr>
<td>12.</td>
<td>5 soon</td>
<td>39.</td>
<td>1 (is to leave)</td>
</tr>
<tr>
<td>13.</td>
<td>5 sometime</td>
<td>40.</td>
<td>5 sometime or other</td>
</tr>
<tr>
<td>14.</td>
<td>7 (is going to leave)</td>
<td>41.</td>
<td>1 (is about to leave soon)</td>
</tr>
<tr>
<td>15.</td>
<td>11 (may be leaving in a minute</td>
<td>42.</td>
<td>1 (is to leave), sometime tomorrow</td>
</tr>
<tr>
<td>16.</td>
<td>1 (is to leave)</td>
<td>43.</td>
<td>5 anytime now</td>
</tr>
<tr>
<td>17.</td>
<td>- -</td>
<td>44.</td>
<td>1 (is to leave)</td>
</tr>
<tr>
<td>18.</td>
<td>5 soon</td>
<td>45.</td>
<td>1 (is to leave)</td>
</tr>
<tr>
<td>19.</td>
<td>5 (may leave), in a short while</td>
<td>46.</td>
<td>5 (is to leave)</td>
</tr>
<tr>
<td>20.</td>
<td>5 soon</td>
<td>47.</td>
<td>6 (might leave), in a moment</td>
</tr>
<tr>
<td>21.</td>
<td>5 (may leave), in five minutes</td>
<td>48.</td>
<td>5 -</td>
</tr>
<tr>
<td>22.</td>
<td>6 (might leave), later</td>
<td>49.</td>
<td>7 (is going to leave)</td>
</tr>
<tr>
<td>23.</td>
<td>11 -</td>
<td>50.</td>
<td>7 (is going to leave)</td>
</tr>
</tbody>
</table>

contd...
Table 21 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>5</td>
<td>(may leave)</td>
<td>51.</td>
<td>5</td>
<td>soon</td>
</tr>
<tr>
<td>25.</td>
<td>5</td>
<td>(may leave),</td>
<td>52.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>soon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>5</td>
<td>(may leave)</td>
<td>53.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>27.</td>
<td>11</td>
<td>shortly</td>
<td>54.</td>
<td>5</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 22

20. **Notional Cue**: 'Right Now'
   **Formal Cue**: 'I (open) the door.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td></td>
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</tr>
<tr>
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</tr>
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<td>1/7</td>
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<td>7</td>
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</tr>
<tr>
<td>5.</td>
<td>5</td>
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<td>32.</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>5</td>
<td></td>
<td>33.</td>
<td>7</td>
<td>just now</td>
</tr>
<tr>
<td>7.</td>
<td>1</td>
<td></td>
<td>34.</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>7</td>
<td></td>
<td>35.</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>7</td>
<td></td>
<td>36.</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>7</td>
<td></td>
<td>37.</td>
<td>7</td>
<td>at this present moment</td>
</tr>
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<td>38.</td>
<td>1</td>
<td></td>
</tr>
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contd...
Table 22 contd.

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<th>No.</th>
<th>Tenseme Adverbial/Note</th>
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<td>7</td>
<td>40.</td>
<td>7</td>
</tr>
<tr>
<td>14.</td>
<td>7</td>
<td>41.</td>
<td>7 (am going to open)</td>
</tr>
<tr>
<td>15.</td>
<td>7</td>
<td>42.</td>
<td>7</td>
</tr>
<tr>
<td>16.</td>
<td>7</td>
<td>43.</td>
<td>7</td>
</tr>
<tr>
<td>17.</td>
<td>7</td>
<td>44.</td>
<td>7</td>
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<td>7</td>
<td>45.</td>
<td>7</td>
</tr>
<tr>
<td>19.</td>
<td>7</td>
<td>46.</td>
<td>7</td>
</tr>
<tr>
<td>20.</td>
<td>7 right now</td>
<td>47.</td>
<td>7</td>
</tr>
<tr>
<td>21.</td>
<td>7</td>
<td>48.</td>
<td>7</td>
</tr>
<tr>
<td>22.</td>
<td>7</td>
<td>49.</td>
<td>7</td>
</tr>
<tr>
<td>23.</td>
<td>7</td>
<td>50.</td>
<td>1 right now</td>
</tr>
<tr>
<td>24.</td>
<td>7</td>
<td>51.</td>
<td>7</td>
</tr>
<tr>
<td>25.</td>
<td>7</td>
<td>52.</td>
<td>7</td>
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<td>7</td>
<td>53.</td>
<td>7</td>
</tr>
<tr>
<td>27.</td>
<td>7</td>
<td>54.</td>
<td>7</td>
</tr>
</tbody>
</table>

**TABLE 23**

21. Notional Cue: 'When you arrive Tomorrow'
   Formal Cue: 'He (read)'.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>11</td>
<td>28.</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>11</td>
<td>29.</td>
<td>11</td>
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Table 23 contd.

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<th>No.</th>
<th>Tense</th>
<th>Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>11</td>
<td>-</td>
<td>30.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
</tr>
<tr>
<td>4.</td>
<td>5</td>
<td>-</td>
<td>31.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>11</td>
<td>-</td>
<td>32.</td>
<td>5</td>
<td>then</td>
</tr>
<tr>
<td>6.</td>
<td>11</td>
<td>-</td>
<td>33.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
</tr>
<tr>
<td>7.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
<td>34.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>8.</td>
<td>11</td>
<td>-</td>
<td>35.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>5</td>
<td>-</td>
<td>36.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>11</td>
<td>-</td>
<td>37.</td>
<td>11</td>
<td>at that time</td>
</tr>
<tr>
<td>11.</td>
<td>11</td>
<td>-</td>
<td>38.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
</tr>
<tr>
<td>12.</td>
<td>5</td>
<td>-</td>
<td>39.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>13.</td>
<td>11</td>
<td>then</td>
<td>40.</td>
<td>5</td>
<td>when you arrive tomorrow</td>
</tr>
<tr>
<td>14.</td>
<td>11</td>
<td>-</td>
<td>41.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>15.</td>
<td>11</td>
<td>-</td>
<td>42.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>16.</td>
<td>11</td>
<td>-</td>
<td>43.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
</tr>
<tr>
<td>17.</td>
<td>11</td>
<td>-</td>
<td>44.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>18.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
<td>45.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>19.</td>
<td>11</td>
<td>-</td>
<td>46.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>20.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
<td>47.</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>21.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
<td>48.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>22.</td>
<td>11</td>
<td>when you arrive tomorrow</td>
<td>49.</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>23.</td>
<td>11</td>
<td>-</td>
<td>50.</td>
<td>5</td>
<td>when you arrive tomorrow</td>
</tr>
</tbody>
</table>

contd...
Table 23 contd.

<table>
<thead>
<tr>
<th>No. Tenseme Adverbial/Note</th>
<th>No. Tenseme Adverbial/Note</th>
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</thead>
<tbody>
<tr>
<td>24. 11 -</td>
<td>51. 5 when you arrive tomorrow</td>
</tr>
<tr>
<td>25. 11 -</td>
<td>52. 5 -</td>
</tr>
<tr>
<td>26. 11 -</td>
<td>53. 11 when you arrive tomorrow</td>
</tr>
<tr>
<td>27. 11 -</td>
<td>54. 11 when you arrive tomorrow</td>
</tr>
</tbody>
</table>

TABLE 24

22. Notional Cue: 'Now'
Formal Cue: 'He (listen) to music.'

<table>
<thead>
<tr>
<th>No. Tenseme Adverbial/Note</th>
<th>No. Tenseme Adverbial/Note</th>
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<tbody>
<tr>
<td>1. 7 -</td>
<td>28. 7 -</td>
</tr>
<tr>
<td>2. 7 -</td>
<td>29. 7 -</td>
</tr>
<tr>
<td>3. 7 -</td>
<td>30. 7 -</td>
</tr>
<tr>
<td>4. 7 -</td>
<td>31. 1 -</td>
</tr>
<tr>
<td>5. 7 -</td>
<td>32. 7 -</td>
</tr>
<tr>
<td>6. 7 -</td>
<td>33. 7 at the moment</td>
</tr>
<tr>
<td>7. 7 now</td>
<td>34. 7 -</td>
</tr>
<tr>
<td>8. 7 -</td>
<td>35. 7 -</td>
</tr>
<tr>
<td>9. 7 -</td>
<td>36. 7 -</td>
</tr>
<tr>
<td>10. 7 -</td>
<td>37. 7 at the present moment</td>
</tr>
</tbody>
</table>

contd...
Table 24 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>7 -</td>
<td>38.</td>
<td>7 -</td>
</tr>
<tr>
<td>12.</td>
<td>7 -</td>
<td>39.</td>
<td>7 -</td>
</tr>
<tr>
<td>13.</td>
<td>7 -</td>
<td>40.</td>
<td>7 -</td>
</tr>
<tr>
<td>14.</td>
<td>7 -</td>
<td>41.</td>
<td>7 -</td>
</tr>
<tr>
<td>15.</td>
<td>7 -</td>
<td>42.</td>
<td>7 -</td>
</tr>
<tr>
<td>16.</td>
<td>7 -</td>
<td>43.</td>
<td>7 -</td>
</tr>
<tr>
<td>17.</td>
<td>7 -</td>
<td>44.</td>
<td>7 -</td>
</tr>
<tr>
<td>18.</td>
<td>7 just now</td>
<td>45.</td>
<td>7 at this moment</td>
</tr>
<tr>
<td>19.</td>
<td>7 -</td>
<td>46.</td>
<td>7 -</td>
</tr>
<tr>
<td>20.</td>
<td>7 right now</td>
<td>47.</td>
<td>7 -</td>
</tr>
<tr>
<td>21.</td>
<td>7 -</td>
<td>48.</td>
<td>7 -</td>
</tr>
<tr>
<td>22.</td>
<td>7 just now</td>
<td>49.</td>
<td>7 -</td>
</tr>
<tr>
<td>23.</td>
<td>7 -</td>
<td>50.</td>
<td>7 now</td>
</tr>
<tr>
<td>24.</td>
<td>1 -</td>
<td>51.</td>
<td>7 -</td>
</tr>
<tr>
<td>25.</td>
<td>7 -</td>
<td>52.</td>
<td>7 -</td>
</tr>
<tr>
<td>26.</td>
<td>7 -</td>
<td>53.</td>
<td>7 -</td>
</tr>
<tr>
<td>27.</td>
<td>7 -</td>
<td>54.</td>
<td>7 -</td>
</tr>
</tbody>
</table>

Table 25

23. Notional Cue: 'All Day Yesterday'

Formal Cue : 'He (read).'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2 -</td>
<td>28.</td>
<td>2 -</td>
</tr>
<tr>
<td>2.</td>
<td>2 -</td>
<td>29.</td>
<td>2 -</td>
</tr>
<tr>
<td>3.</td>
<td>2 -</td>
<td>30.</td>
<td>2 all day yesterday</td>
</tr>
</tbody>
</table>
Table 25 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
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<tbody>
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<td>4.</td>
<td>2 -</td>
<td>31.</td>
<td>2 -</td>
</tr>
<tr>
<td>5.</td>
<td>2 -</td>
<td>32.</td>
<td>2 all day</td>
</tr>
<tr>
<td>6.</td>
<td>2 -</td>
<td>33.</td>
<td>2 all day yesterday</td>
</tr>
<tr>
<td>7.</td>
<td>- -</td>
<td>34.</td>
<td>2 -</td>
</tr>
<tr>
<td>8.</td>
<td>- -</td>
<td>35.</td>
<td>2 -</td>
</tr>
<tr>
<td>9.</td>
<td>2 -</td>
<td>36.</td>
<td>2 -</td>
</tr>
<tr>
<td>10.</td>
<td>2 -</td>
<td>37.</td>
<td>2 all day yesterday</td>
</tr>
<tr>
<td>11.</td>
<td>- -</td>
<td>38.</td>
<td>2 all day yesterday</td>
</tr>
<tr>
<td>12.</td>
<td>2 -</td>
<td>39.</td>
<td>8 -</td>
</tr>
<tr>
<td>13.</td>
<td>2 all that time</td>
<td>40.</td>
<td>2 -</td>
</tr>
<tr>
<td>14.</td>
<td>2 all day</td>
<td>41.</td>
<td>2 -</td>
</tr>
<tr>
<td>15.</td>
<td>2 for a long time</td>
<td>42.</td>
<td>2 -</td>
</tr>
<tr>
<td>16.</td>
<td>8 (kept reading)</td>
<td>43.</td>
<td>2 all day yesterday</td>
</tr>
<tr>
<td>17.</td>
<td>2 yesterday</td>
<td>44.</td>
<td>2 all day yesterday</td>
</tr>
<tr>
<td>18.</td>
<td>8 all day yesterday</td>
<td>45.</td>
<td>2 -</td>
</tr>
<tr>
<td>19.</td>
<td>8 -</td>
<td>46.</td>
<td>8 -</td>
</tr>
<tr>
<td>20.</td>
<td>8 all day yesterday</td>
<td>47.</td>
<td>2 -</td>
</tr>
<tr>
<td>21.</td>
<td>8 all day yesterday</td>
<td>48.</td>
<td>2 -</td>
</tr>
<tr>
<td>22.</td>
<td>2 all day yesterday</td>
<td>49.</td>
<td>2 all day yesterday</td>
</tr>
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contd...
Table 25 contd.

<table>
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<tr>
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<th>No. Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2 -</td>
<td>50. 2 all day yesterday</td>
</tr>
<tr>
<td>24.</td>
<td>2 -</td>
<td>51. 8 all day yesterday</td>
</tr>
<tr>
<td>25.</td>
<td>2 -</td>
<td>52. 2 all day yesterday</td>
</tr>
<tr>
<td>26.</td>
<td>2 -</td>
<td>53. 8 all day yesterday</td>
</tr>
<tr>
<td>27.</td>
<td>2 -</td>
<td>54. 8 -</td>
</tr>
</tbody>
</table>

TABLE 26

24. Notional Cue: 'At a Time Later than that of the First Verb'

Formal Cue: 'I promised that I (go).' 

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No. Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
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<td>1.</td>
<td>6 -</td>
<td>28. 6 -</td>
</tr>
<tr>
<td>2.</td>
<td>6 -</td>
<td>29. 6 -</td>
</tr>
<tr>
<td>3.</td>
<td>6 -</td>
<td>30. 6 -</td>
</tr>
<tr>
<td>4.</td>
<td>6 -</td>
<td>31. 6 -</td>
</tr>
<tr>
<td>5.</td>
<td>6 -</td>
<td>32. 6 -</td>
</tr>
<tr>
<td>6.</td>
<td>6 -</td>
<td>33. 6 -</td>
</tr>
<tr>
<td>7.</td>
<td>6 -</td>
<td>34. 6 -</td>
</tr>
<tr>
<td>8.</td>
<td>6 -</td>
<td>35. 6 -</td>
</tr>
<tr>
<td>9.</td>
<td>6 -</td>
<td>36. 6 -</td>
</tr>
<tr>
<td>10.</td>
<td>6 -</td>
<td>37. 6 -</td>
</tr>
</tbody>
</table>

contd...
Table 26 contd.

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<th>Tenseme Adverbial/Note</th>
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<tbody>
<tr>
<td>11.</td>
<td>6 -</td>
<td>38.</td>
<td>6 -</td>
</tr>
<tr>
<td>12.</td>
<td>6 -</td>
<td>39.</td>
<td>6 -</td>
</tr>
<tr>
<td>13.</td>
<td>6 -</td>
<td>40.</td>
<td>6 -</td>
</tr>
<tr>
<td>14.</td>
<td>6 -</td>
<td>41.</td>
<td>6 -</td>
</tr>
<tr>
<td>15.</td>
<td>6 -</td>
<td>42.</td>
<td>6 -</td>
</tr>
<tr>
<td>16.</td>
<td>6 -</td>
<td>43.</td>
<td>6 -</td>
</tr>
<tr>
<td>17.</td>
<td>6 later</td>
<td>44.</td>
<td>6 -</td>
</tr>
<tr>
<td>18.</td>
<td>- -</td>
<td>45.</td>
<td>6 -</td>
</tr>
<tr>
<td>19.</td>
<td>6 -</td>
<td>46.</td>
<td>6 (should go)</td>
</tr>
<tr>
<td>20.</td>
<td>6 later</td>
<td>47.</td>
<td>6 -</td>
</tr>
<tr>
<td>21.</td>
<td>6 -</td>
<td>48.</td>
<td>6 again</td>
</tr>
<tr>
<td>22.</td>
<td>6 -</td>
<td>49.</td>
<td>6 -</td>
</tr>
<tr>
<td>23.</td>
<td>- -</td>
<td>50.</td>
<td>6 -</td>
</tr>
<tr>
<td>24.</td>
<td>6 (should go)</td>
<td>51.</td>
<td>6 later</td>
</tr>
<tr>
<td>25.</td>
<td>6 -</td>
<td>52.</td>
<td>6 -</td>
</tr>
<tr>
<td>26.</td>
<td>6 -</td>
<td>53.</td>
<td>6 -</td>
</tr>
<tr>
<td>27.</td>
<td>6 -</td>
<td>54.</td>
<td>6 -</td>
</tr>
</tbody>
</table>

Table 27

25. Notional Cue: 'After we meet Tomorrow'
Formal Cue: 'We (leave) together.'

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>5 -</td>
<td>28.</td>
<td>5 -</td>
</tr>
<tr>
<td>2.</td>
<td>7 -</td>
<td>29.</td>
<td>5 -</td>
</tr>
<tr>
<td>3.</td>
<td>5 -</td>
<td>30.</td>
<td>5 -</td>
</tr>
<tr>
<td>4.</td>
<td>5 -</td>
<td>31.</td>
<td>5 -</td>
</tr>
</tbody>
</table>

contd...
Table 27 contd.

<table>
<thead>
<tr>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
<th>No.</th>
<th>Tenseme Adverbial/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5 -</td>
<td>32</td>
<td>5 -</td>
</tr>
<tr>
<td>6</td>
<td>5 -</td>
<td>33</td>
<td>5 -</td>
</tr>
<tr>
<td>7</td>
<td>5 after we meet</td>
<td>34</td>
<td>5 -</td>
</tr>
<tr>
<td></td>
<td>tomorrow</td>
<td></td>
<td>5 -</td>
</tr>
<tr>
<td>8</td>
<td>5 -</td>
<td>35</td>
<td>5 -</td>
</tr>
<tr>
<td>9</td>
<td>5 -</td>
<td>36</td>
<td>5 then</td>
</tr>
<tr>
<td>10</td>
<td>5 then</td>
<td>37</td>
<td>5 afterwards</td>
</tr>
<tr>
<td>11</td>
<td>5 -</td>
<td>38</td>
<td>5 -</td>
</tr>
<tr>
<td>12</td>
<td>5 -</td>
<td>39</td>
<td>5 -</td>
</tr>
<tr>
<td>13</td>
<td>5 after that</td>
<td>40</td>
<td>5 -</td>
</tr>
<tr>
<td>14</td>
<td>5 after we meet...</td>
<td>41</td>
<td>5 -</td>
</tr>
<tr>
<td>15</td>
<td>5 afterwards</td>
<td>42</td>
<td>5 -</td>
</tr>
<tr>
<td>16</td>
<td>5 -</td>
<td>43</td>
<td>5 after we meet...</td>
</tr>
<tr>
<td>17</td>
<td>5 -</td>
<td>44</td>
<td>5 -</td>
</tr>
<tr>
<td>18</td>
<td>5 after we meet...</td>
<td>45</td>
<td>5 then</td>
</tr>
<tr>
<td>19</td>
<td>5 -</td>
<td>46</td>
<td>5 -</td>
</tr>
<tr>
<td>20</td>
<td>5 after we meet...</td>
<td>47</td>
<td>5 -</td>
</tr>
<tr>
<td>21</td>
<td>5 then</td>
<td>48</td>
<td>5 -</td>
</tr>
<tr>
<td>22</td>
<td>5 -</td>
<td>49</td>
<td>5 -</td>
</tr>
<tr>
<td>23</td>
<td>5 -</td>
<td>50</td>
<td>5 after we meet...</td>
</tr>
<tr>
<td>24</td>
<td>5 -</td>
<td>51</td>
<td>5 after we meet...</td>
</tr>
<tr>
<td>25</td>
<td>5 -</td>
<td>52</td>
<td>5 then</td>
</tr>
<tr>
<td>26</td>
<td>5 -</td>
<td>53</td>
<td>5 after we meet...</td>
</tr>
<tr>
<td>27</td>
<td>5 -</td>
<td>54</td>
<td>5 -</td>
</tr>
</tbody>
</table>
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.  

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 tenseme. Each function of a given tenseme is to be regarded as the product of the co-occurrence of that particular tenseme with the adverbial category which appears opposite that function in any one table.

Every tables of the following represents the usage of one of the tensemes given to the informants of Test Three.

---

7 In 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)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A)</strong> An Unspecified Frequency</td>
<td>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</td>
<td>A Current Habit</td>
</tr>
<tr>
<td><strong>(B)</strong> A Future Point</td>
<td>3, 6, 9, 10, 16, 19, 32, 36, 41, 44, 59, 63</td>
<td>A Specific Future Action or State</td>
</tr>
</tbody>
</table>
| **(C)** An Unspecified Point | a. Specific: 12, 15, 24, 28, 45, 57  
   b. Unspecific: 13  
   c. Specific and Unspecific: Both a and b above | a. As (B) above  
   b. At an Unspecific Future Point  
   c. As (A) above |
| **(D)** Simultaneous Present | 21, 48, 60 | An Action/State at Simultaneous Present |
| **(E)** Unspecified Duration | 39 | A Statement of Fact |

*contd...*
Table 23 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(F) After a Future Point</td>
<td>43</td>
<td>A Post-Future Action</td>
</tr>
<tr>
<td>(G) Before a Future Point</td>
<td>49</td>
<td>A Pre-Future Action</td>
</tr>
<tr>
<td>(H) A Post-Future Frequency</td>
<td>53</td>
<td>A Post-Future (Specific Frequency)</td>
</tr>
</tbody>
</table>

TABLE 29

2. WENT (Basic Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) A Specific Point in the Past</td>
<td>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, 77</td>
<td>An Action/State taken place at a Specific Point of Time in the Past</td>
</tr>
<tr>
<td>(B) An Unspecific Point in the Past</td>
<td>6, 11, 50, 60, 64</td>
<td>An Action/State taken place at an Unspecific Point of Time</td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C) An Unspecified Point</td>
<td>24, 32, 41, 45, 48</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(D) After an Action in the Past</td>
<td>14, 31, 44, 53, 61</td>
<td>A Post-Past Action</td>
</tr>
<tr>
<td>(E) After an Unspecified Point of Time</td>
<td>22, 23, 27, 42, 57</td>
<td>As in (D) above</td>
</tr>
<tr>
<td>(F) Before an Action in the Past</td>
<td>49, 55</td>
<td>A Pre-Past Action</td>
</tr>
<tr>
<td>(G) Past Frequency</td>
<td>38</td>
<td>A Frequent Action in the Past</td>
</tr>
<tr>
<td>(H) Unspecified Frequency</td>
<td>46</td>
<td>As in (G) above</td>
</tr>
<tr>
<td>(I) A Specific Future Point of Time</td>
<td>10</td>
<td>A Tentative Conditional Future</td>
</tr>
<tr>
<td>(J) Daytime Period</td>
<td>3</td>
<td>As in (A) above</td>
</tr>
</tbody>
</table>
### TABLE 30

**3. HAVE GONE (Earlier Present)**

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Unspecific Past</td>
<td>28,38,67</td>
<td>An Action at an Unspecific Past Point</td>
</tr>
<tr>
<td>(B) Simultaneous Present</td>
<td>1,62</td>
<td>An Action at Recent Past</td>
</tr>
<tr>
<td>(C) An Unspecified Point of Time</td>
<td>3,13,31,33</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(D) Daytime Period</td>
<td>8,17,32,40,43,45,48,54,70,</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(E) After an Unspecified Duration</td>
<td>15,42</td>
<td>An Action at an Unspecific Post-Past (Specific Duration)</td>
</tr>
<tr>
<td>(F) A Future Point</td>
<td>20,52(with temporal conjunctions)</td>
<td>An Action at Pre-Future</td>
</tr>
<tr>
<td>(G) An Unspecified Frequency</td>
<td>23,25,64</td>
<td>A Frequent Action at Unspecific Points of Time in the Past</td>
</tr>
<tr>
<td>(H) Past Frequency</td>
<td>68</td>
<td>As in (G) above</td>
</tr>
</tbody>
</table>
### TABLE 31

4. HAD FINISHED (Earlier Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A) A Specific Point in the Past</strong></td>
<td>a.13, 54, 68</td>
<td>a. Prior to a Specific Past Point</td>
</tr>
<tr>
<td></td>
<td>b.10, 49 (with if)</td>
<td>b. Hypothetical Past</td>
</tr>
<tr>
<td><strong>(B) A Specific Action in the Past</strong></td>
<td>15, 28</td>
<td>Prior to another Specific Past Action</td>
</tr>
<tr>
<td><strong>(C) An Unspecific Action in the Past</strong></td>
<td>6, 7, 8, 16, 20, 23, 26, 33, 34, 35, 39, 52, 53, 56, 61, 66, 70</td>
<td>Prior to another Unspecific Past Action</td>
</tr>
<tr>
<td><strong>(D) Unspecified Point</strong></td>
<td>2, 3, 4, 27, 38, 41, 42, 60, 63</td>
<td>Prior to a Specific Past Point</td>
</tr>
<tr>
<td><strong>(E) Before an Action in the Past</strong></td>
<td>9, 21, 24, 25, 40, 44, 67</td>
<td>As in (C) above</td>
</tr>
<tr>
<td><strong>(F) Before an Unspecified Point</strong></td>
<td>a. Specific: 45, 51, 69, 62</td>
<td>a. Prior to a Specific Past Point</td>
</tr>
<tr>
<td></td>
<td>b. Unspecific: 57, 29</td>
<td>b. Prior to an Unspecified Past Point</td>
</tr>
<tr>
<td><strong>(G) Daytime Period</strong></td>
<td>32(with if)</td>
<td>Hypothetical Past</td>
</tr>
</tbody>
</table>
### TABLE 32

#### 5. WILL FINISH (Later Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) A Specific Future Point of Time</td>
<td>3, 6, 8, 15, 24, 25, 28, 30, 32, 34, 35, 39, 47, 59, 61, 70</td>
<td>An Action that will take place at a Specific Future Point.</td>
</tr>
</tbody>
</table>
| (B) An Unspecified Point of Time | a. Specific: 1, 2, 17, 41, 53, 57, 66  
  b. Unspecific: 9, 10, 31, 56, 62, 45 | a. As in (A) above  
  b. An Action that will take place at an Unspecific Future Point |
| (C) A Pre-Future Point | 4, 19, 37, 63, 64 | A Pre-Future Action |
| (D) Before a Point at Daytime Period | 7, 20, 46 | As in (C) above |
| (E) After an Unspecified Point | 14, 26, 29, 40, 65 | A Post-Future Action |
| (F) Before an Unspecified Point | 16, 21, 44, 49, 38, 50, 67, 69 | As in (C) above |
| (G) At Daytime Period | 36, 55, 58, 60, 68 | As in (A) above |

contd. . .
Table 32 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H) Contemporaneous Present</td>
<td>27</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(I) Unspecific Future</td>
<td>12, 22, 23, 43</td>
<td>As in (Bb) above</td>
</tr>
<tr>
<td>(J) After a Future Point</td>
<td>42, 54</td>
<td>As in (E) above</td>
</tr>
<tr>
<td>(K) Before a Point at Contemporaneous Present</td>
<td>52</td>
<td>As in (C) above</td>
</tr>
</tbody>
</table>

TABLE 33

6. WOULD GO (Later Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Unspecific Point of Time</td>
<td>a. 6 (Past Point of Reference, esp. in Reported Speech)</td>
<td>a. Post-Past</td>
</tr>
<tr>
<td></td>
<td>b. 13, 17, 19, 23, 24, 27, 38, 41, 42, 43, 68, 70 (with if)</td>
<td>b. Tentative Future</td>
</tr>
<tr>
<td></td>
<td>c. 34, 36, 69 (with but)</td>
<td>c. Hypothetical Future</td>
</tr>
</tbody>
</table>

contd. . .
<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) A Future Point of Time</td>
<td>a. 2, 7, 15, 31 (Reported)</td>
<td>a. As in (Aa) above</td>
</tr>
<tr>
<td></td>
<td>b. 4, 30, 49, 54 (with but)</td>
<td>b. As in (Ac) above</td>
</tr>
<tr>
<td></td>
<td>c. 8, 9, 10, 20, 21,</td>
<td>c. As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td>28, 29, 39, 56,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>61, 63, 64, 66 (with if)</td>
<td></td>
</tr>
<tr>
<td>(C) A Past Point of Time</td>
<td>3, 40</td>
<td>As in (Ab) above</td>
</tr>
<tr>
<td>(D) Unspecified Duration of Time</td>
<td>26</td>
<td>As in (Ab) above</td>
</tr>
<tr>
<td>(E) Before an Unspecified Point</td>
<td>16</td>
<td>A Past Habit</td>
</tr>
<tr>
<td>of Time (Specific Frequency)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(F) After a Point in the Past</td>
<td>18, 60, 65</td>
<td>As in (Aa) above</td>
</tr>
<tr>
<td>(G) After an Unspecific Point of</td>
<td>37 (with if + not)</td>
<td>As in (Ac) above</td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(H) Unspecified Frequency</td>
<td>47</td>
<td>As in (E) above</td>
</tr>
</tbody>
</table>

cont...
Table 33 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I) After a Future Point</td>
<td>52</td>
<td>As in (Ab) above</td>
</tr>
<tr>
<td>(J) Before an Unspecified Point</td>
<td>48</td>
<td>As in (Ab) above</td>
</tr>
<tr>
<td>(K) Daytime Period</td>
<td>a.1,45,58(Reported)</td>
<td>a. As in (Aa) above</td>
</tr>
<tr>
<td></td>
<td>b.5,33,62</td>
<td>b. As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td>c.25,50,11</td>
<td>c. As in (Ac) above</td>
</tr>
<tr>
<td>(L) Simultaneous Present</td>
<td>a.32</td>
<td>a. As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td>b.44</td>
<td>b. As in (Ac) above</td>
</tr>
</tbody>
</table>

TABLE 34

7. IS READING (Simultaneous Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Simultaneous Present</td>
<td>3,4,8,9,18,27,31,</td>
<td>Simultaneous Present Action</td>
</tr>
<tr>
<td></td>
<td>34,37,40,46,48,50,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>52,54,55,64,69</td>
<td></td>
</tr>
</tbody>
</table>

contd...
Table 34 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) Daytime Period</td>
<td>2, 20, 24, 25, 59, 66</td>
<td>a. A Future Action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (A) above</td>
</tr>
<tr>
<td>(C) An Unspecified Point of Time</td>
<td>6, 60</td>
<td>a. As in (Ba) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (A) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. A General Habit or Fact seen as Timeless</td>
</tr>
<tr>
<td>(D) Before an Unspecified Point</td>
<td>10</td>
<td>a. As in (A) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (Cc) above</td>
</tr>
<tr>
<td>(E) A Future Point of Time</td>
<td>12, 16, 19, 28, 41, 61, 70</td>
<td>As in (Ba) above</td>
</tr>
<tr>
<td>(F) An Unspecified Frequency</td>
<td>13, 38, 53, 56</td>
<td>As in (Cc) above</td>
</tr>
<tr>
<td>(G) A Future Point (End of Duration)</td>
<td>33</td>
<td>An Action that ends up at or before a Point in Future (Specific Duration)</td>
</tr>
<tr>
<td>(H) An Unspecified Duration</td>
<td>42, 45</td>
<td>a. As in (Ba) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (A) above</td>
</tr>
</tbody>
</table>

contd...
Table 34 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I) After an Unspecified Point</td>
<td>62</td>
<td>a. As in (A) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (Cc) above</td>
</tr>
<tr>
<td>(J) Contemporaneous Present</td>
<td>1,11,68</td>
<td>a. As in (Ba) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Action at Contemporaneous Present</td>
</tr>
</tbody>
</table>

TABLE 35

8. WAS READING (Simultaneous Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) A Specific Point in the Past</td>
<td>1,11,24,25,26,28, 30,32,45,59,61, 68,69</td>
<td>An Action Going on at a Specific Past Point</td>
</tr>
<tr>
<td>(B) An Action in the Past</td>
<td>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</td>
<td>An Action Simultaneous with another in the Past</td>
</tr>
<tr>
<td>(C) An Unspecified Point of Time</td>
<td>3,13,31,36,48, 60</td>
<td>As in (A) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>contd...</td>
</tr>
</tbody>
</table>
Table 35 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) An Unspecified Duration of Time</td>
<td>17,33,41</td>
<td>An Action Simultaneous with a Period of Time in the Past (Specific Duration)</td>
</tr>
<tr>
<td>(E) An Unspecific Point in the Past</td>
<td>9,39,47,64</td>
<td>An Action Going on at an Unspecific Point in the Past</td>
</tr>
<tr>
<td>(F) After an Action in the Past</td>
<td>52,53</td>
<td>An Action that follows another in the Past</td>
</tr>
<tr>
<td>(G) Before an Action in the Past</td>
<td>55,63,66</td>
<td>An Action that precedes another in the Past</td>
</tr>
</tbody>
</table>

TABLE 36

9. HAS BEEN WORKING (Simultaneous Earlier-Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Overall Duration (Specific End)</td>
<td>16 (Specific Duration, with if)</td>
<td>An Action Continuing up to a Future Point</td>
</tr>
</tbody>
</table>
Table 36 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) An Unspecified Overall Duration</td>
<td>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</td>
<td>An Unspecific Past Activity Continuing up to the Moment of Speech (Specific Duration)</td>
</tr>
<tr>
<td>(C) An Unspecified Point</td>
<td>3</td>
<td>A Repeated Past Action that is still on at M.O.S.</td>
</tr>
<tr>
<td>(D) An Unspecified Overall Duration (Specific Beginning)</td>
<td>4, 32, 37, 47, 52, 53, 63</td>
<td>A Past Activity Continuing up to M.O.S. (Specific Beginning of Duration)</td>
</tr>
<tr>
<td>(E) A Past Duration (Specific Beginning)</td>
<td>5, 6, 20, 24, 66, 67, 70</td>
<td>As in (D) above</td>
</tr>
<tr>
<td>(F) A Past Duration Extending up to M.O.S.</td>
<td>1, 7, 11, 21, 25, 30, 39, 56, 58, 69</td>
<td>A Past Activity Marked as Continuing up to M.O.S.</td>
</tr>
<tr>
<td>(G) An Unspecific Past</td>
<td>9, 13, 68</td>
<td>As in (C) above</td>
</tr>
</tbody>
</table>

contd. ...
Table 36 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H) An Unspecified Duration (Spec-End; Specific Frequency)</td>
<td>43, 62</td>
<td>As in (C) above</td>
</tr>
<tr>
<td>(I) A Pre-Past Point</td>
<td>44</td>
<td>An Activity Begun at a Pre-Past Point and continued up to M.O.S.</td>
</tr>
<tr>
<td>(J) A Past Duration Extending up to M.O.S. (Specific Frequency)</td>
<td>54</td>
<td>As in (C) above</td>
</tr>
<tr>
<td>(K) After an Unspecified Point of Time</td>
<td>15, 61</td>
<td>An Activity begun at a Post-Past Point and is still Going on at M.O.S.</td>
</tr>
</tbody>
</table>

Table 37

10. HAD BEEN READING (Simultaneous Earlier-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecific Action in Past</td>
<td>1, 4, 8, 12, 15, 16, 17, 20, 23, 28, 34, 49, 50, 56, 58, 64, 69</td>
<td>Prior to and Simultaneous with an Unspecific Action in Past</td>
</tr>
</tbody>
</table>
Table 37 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) An Unspecified</td>
<td>2, 9, 13, 60</td>
<td>Prior to and</td>
</tr>
<tr>
<td>Point of Time</td>
<td></td>
<td>Simultaneous with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a Specific Point</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the Past</td>
</tr>
<tr>
<td>(C) Before an</td>
<td>3, 42, 57</td>
<td>Duration at Pre-Past</td>
</tr>
<tr>
<td>Unspecified Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(D) A Duration before</td>
<td>5, 6, 10, 31, 44, 62</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>a Past Action</td>
<td></td>
<td>(Specific Duration)</td>
</tr>
<tr>
<td>(E) A Duration at an</td>
<td>11, 21, 22, 26, 27, 29, 32,</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>Unspecified Time</td>
<td>33, 37, 41, 45, 47, 59, 63,</td>
<td>(Specific Duration)</td>
</tr>
<tr>
<td></td>
<td>67, 43</td>
<td></td>
</tr>
<tr>
<td>(F) A Specific Point</td>
<td>19, 24, 25, 30, 35, 39, 54</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>in the Past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(G) Before an</td>
<td>36, 55, 70</td>
<td>As in (C) above</td>
</tr>
<tr>
<td>Unspecified Action</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in the Past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(H) A Duration to an</td>
<td>38</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>Unspecified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(I) On Daytime Period</td>
<td>61</td>
<td>A Hypothetical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Past Condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(with 'if')</td>
</tr>
</tbody>
</table>

contd...
### Table 37 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(J) A Specific Action in the Past</td>
<td>7, 18, 68</td>
<td>Prior to a Specific Action in the Past</td>
</tr>
<tr>
<td>(K) Up to an Unspecified Point</td>
<td>53</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(L) Up to an Unspecified Action in the Past</td>
<td>46, 66</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(M) Before a Specific Action in the Past</td>
<td>52</td>
<td>As in (C) above</td>
</tr>
</tbody>
</table>

### Table 38

11. WILL BE READING (Simultaneous Later-Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) A Specific Future Point</td>
<td>1, 4, 5, 8, 9, 10, 13, 19, 24, 25, 28, 30, 32, 33, 35, 47, 48, 64, 67</td>
<td>An Action Simultaneous with a Specific Future Point of Time</td>
</tr>
</tbody>
</table>

contd...
Table 38 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) Contemporaneous Present (Specific Frequency)</td>
<td>18</td>
<td>A Repeated and Continuous Action in the Future</td>
</tr>
<tr>
<td>(C) Daytime Period</td>
<td>2, 3, 7, 12, 26, 27, 43, 45, 56, 59, 66, 68</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(D) A Duration in the Future</td>
<td>21, 39</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(E) After a Future Point</td>
<td>15, 20, 49, 54</td>
<td>A Post-Future Action</td>
</tr>
<tr>
<td>(F) An Unspecific Future Point</td>
<td>16, 17, 22, 29, 31, 36, 41, 42, 53, 61, 63, 65, 70</td>
<td>An Action Simultaneous with an Un-specific Future Point of Time</td>
</tr>
<tr>
<td>(G) An Unspecified Duration</td>
<td>23, 37, 58</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(H) An Unspecified Point of Time</td>
<td>34, 38, 52, 60</td>
<td>As in (F) above</td>
</tr>
<tr>
<td>(I) A Duration at Pre-Future</td>
<td>11, 44</td>
<td>A Repeated and Continuous Action at Pre-Future</td>
</tr>
</tbody>
</table>

contd...
Table 38 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(J) End of Duration</td>
<td>46, 50, 55</td>
<td>As in (I) above</td>
</tr>
<tr>
<td>at Future</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(K) Daytime Period</td>
<td>69</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(Specific Duration)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(L) After a Point at</td>
<td>57</td>
<td>As in (E) above</td>
</tr>
<tr>
<td>Daytime Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(M) After an Unspecified Point</td>
<td>62</td>
<td>As in (E) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 39

12. WOULD BE LEAVING (Simultaneous Later-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point of Time</td>
<td>a. 11, 32, 33, 34, 35,</td>
<td>a. Tentative</td>
</tr>
<tr>
<td></td>
<td>40, 45, 69</td>
<td>Future</td>
</tr>
<tr>
<td></td>
<td>b. 19, 22, 25</td>
<td>b. Post-Past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Past Point of Reference)</td>
</tr>
<tr>
<td></td>
<td>c. 39, 66</td>
<td>c. Hypothetical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Future</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(if + not)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>contd...</td>
</tr>
</tbody>
</table>
Table 39 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B)After an Unspecified Point of Time</td>
<td>a. 2, 42</td>
<td>a. Tentative Post-Future</td>
</tr>
<tr>
<td></td>
<td>b. 57</td>
<td>b. As in (Ab) above</td>
</tr>
<tr>
<td>(C)A Future Point of Time</td>
<td>a. 4, 27, 43, 48, 17</td>
<td>a. As in (Aa) above</td>
</tr>
<tr>
<td></td>
<td>b. 7, 9, 18, 56</td>
<td>b. As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td>c. 26, 36, 37, 41, 52, 54</td>
<td>c. As in (Ac) above</td>
</tr>
<tr>
<td>(D)Simultaneous Present</td>
<td>a. 3, 31, 44, 46, 50</td>
<td>a. Hypothetical Present or Near Future</td>
</tr>
<tr>
<td></td>
<td>b. 10, 21, 53</td>
<td>b. Tentative Present or Near Future</td>
</tr>
<tr>
<td>(E)A Past Point of Time</td>
<td>15, 24, 47, 55, 64</td>
<td>a. As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td>b. 63, 70</td>
<td>b. As in (Aa) above</td>
</tr>
<tr>
<td>(F)Before an Unspecified Point of Time</td>
<td>a. 23, 28</td>
<td>a. Hypothetical Future</td>
</tr>
<tr>
<td></td>
<td>b. 63, 70</td>
<td>b. Tentative Future</td>
</tr>
<tr>
<td>(G)A Past Point of Time (Specific Frequency)</td>
<td>62, 65</td>
<td>As in (Ab) above</td>
</tr>
</tbody>
</table>

contd...
### Table 39 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H) Contemporaneous Present</td>
<td>a. 13</td>
<td>a. As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td>b. 68</td>
<td>b. As in (Ac) above</td>
</tr>
<tr>
<td></td>
<td>c. 59</td>
<td>c. As in (Aa) above</td>
</tr>
<tr>
<td>(I) An Unspecified Point (Specific Frequency)</td>
<td>6, 16</td>
<td>A Past Habit</td>
</tr>
<tr>
<td>(J) Daytime Period</td>
<td>a. 1, 8, 30, 51</td>
<td>a. As in (Da) above</td>
</tr>
<tr>
<td></td>
<td>b. 29, 58</td>
<td>b. As in (Ab) above</td>
</tr>
</tbody>
</table>

### Table 40

13. WILL HAVE FINISHED (Pre-Later Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Before a Specific Future Point</td>
<td>1, 2, 3, 4, 5, 10, 11, 15, 17, 19, 25, 28, 36, 37, 59, 70</td>
<td>An Action that will take place at a Specific Pre-Future Point</td>
</tr>
<tr>
<td>(B) A Specific Future Point</td>
<td>6, 8, 26, 30, 45, 48, 53</td>
<td>As in (A) above</td>
</tr>
</tbody>
</table>

contd...
Table 40 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C) Before an Unspecific Future Point</td>
<td>7, 44, 49, 51, 60, 62, 50</td>
<td>An Action that will take place at an Unspecific Pre-Future Point</td>
</tr>
<tr>
<td>(D) An Unspecific Future Point</td>
<td>14, 23, 52</td>
<td>As in (C) above</td>
</tr>
<tr>
<td>(E) Before an Unspecified Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Specific: 9, 18, 21, 22, 29, 32, 34, 38, 42, 43, 47, 61, 63, 69</td>
<td>a. As in (A) above</td>
<td></td>
</tr>
<tr>
<td>b. Unspecific: 31, 55, 58</td>
<td>b. As in (C) above</td>
<td></td>
</tr>
<tr>
<td>(F) An Unspecified Point of Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Specific: 12, 13, 24, 27, 35, 39, 56, 66, 68</td>
<td>a. As in (A) above</td>
<td></td>
</tr>
<tr>
<td>b. Unspecific: 33, 41, 46</td>
<td>b. As in (C) above</td>
<td></td>
</tr>
<tr>
<td>(G) After an Unspecified Point of Time</td>
<td>16</td>
<td>An Action that take place before a Specific Point at Post-Future</td>
</tr>
<tr>
<td>(H) Before a Point within Daytime Period</td>
<td>20, 64</td>
<td>As in (A) above</td>
</tr>
</tbody>
</table>

contd...
Table 40 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I)After a Point within Daytime Period</td>
<td>54</td>
<td>As in (G) above</td>
</tr>
<tr>
<td>(J)After an Unspecific Future Point</td>
<td>57</td>
<td>Before an Unspecific Point at Post-Future</td>
</tr>
</tbody>
</table>

TABLE 41

14. WOULD HAVE GONE (Pre-Later Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)A Past Point of Time</td>
<td>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</td>
<td>An Imaginary or Hypothetical Past Action</td>
</tr>
<tr>
<td>(B)Daytime Period</td>
<td>a. 7, 8, 29 (if + Earlier Past; or but + Basic Past) b. 11, 23 (if + Basic Past)</td>
<td>a. As in (A) above b. A Hypothetical Future</td>
</tr>
</tbody>
</table>

contd...
Table 41 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C) Before a Point in the Past</td>
<td>2,70</td>
<td>A Hypothetical Pre-Past</td>
</tr>
<tr>
<td>(D) A Future Point</td>
<td>6,28,49,60,61</td>
<td>As in (Bb) above</td>
</tr>
<tr>
<td>(E) An Unspecified Point of Time</td>
<td>a.10 Basic Past</td>
<td>a. As in (Bb) above</td>
</tr>
<tr>
<td></td>
<td>b.16,38,65</td>
<td>b. As in (A) above</td>
</tr>
<tr>
<td>(F) After an Unspecified Point of Time</td>
<td>18,42,44,57</td>
<td>A Hypothetical Post-Past</td>
</tr>
<tr>
<td>(G) After a Point in the Past</td>
<td>31,53</td>
<td>As in (F) above</td>
</tr>
<tr>
<td>(H) Contemporaneous Present</td>
<td>36</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(I) Before an Unspecified Point of Time</td>
<td>26,33,37,45,51</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(J) Simultaneous Present</td>
<td>50</td>
<td>A Hypothetical Present or Recent Past</td>
</tr>
<tr>
<td>(K) Before Simultaneous Present</td>
<td>13</td>
<td>As in (A) above</td>
</tr>
</tbody>
</table>
15. WILL HAVE BEEN WORKING (Simultaneous Pre-Later Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Duration (Duration Specific)</td>
<td>13, 27, 41, 54, 62, 64</td>
<td>An Activity that will continue up to an Unspecific Future Point</td>
</tr>
<tr>
<td>(B) Before an Unspecified Point</td>
<td>3, 12, 16, 38</td>
<td>An Activity that will be going on up to an Unspecific Pre-Future Point</td>
</tr>
<tr>
<td>(C) Up to an Unspecified Point</td>
<td>a. Specific: 4, 21</td>
<td>a. An Activity that will continue up to a Specific Future Point</td>
</tr>
<tr>
<td></td>
<td>b. Unspecific: 65, 66, 69, 70</td>
<td>b. As in (A) above</td>
</tr>
<tr>
<td>(D) Before a Future Point (Specific Duration)</td>
<td>5, 6, 28, 29, 31, 36, 37, 39, 46, 55, 56, 58, 59, 61, 69, 70</td>
<td>An Activity that will be going at a Specific Pre-Future Point</td>
</tr>
<tr>
<td>(E) Before an Unspecified Point (Specific Duration)</td>
<td>a. Specific: 1, 17, 18, 19, 24, 25, 26, 32, 33, 42, 44, 48, 50, 51, 63, 66, 67,</td>
<td>a. As in (D) above</td>
</tr>
<tr>
<td></td>
<td>b. Unspecific: 47, 60</td>
<td>b. As in (E) above</td>
</tr>
</tbody>
</table>

contd...
Table 42 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(F) Before an Un-specific Future Point</td>
<td>14</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(G) Up to a Future Point (Specific Duration)</td>
<td>a. Specific: 8, 9, 11, 15, 40, 49</td>
<td>a. An Activity that will continue up to a Specific Future Point</td>
</tr>
<tr>
<td></td>
<td>b. Unspecific: 20, 23</td>
<td>b. As in (A) above</td>
</tr>
<tr>
<td>(H) Up to the Moment of Speech (Specific Duration)</td>
<td>22</td>
<td>A Past Activity still going on up to M.O.S.</td>
</tr>
<tr>
<td>(I) Before a Point at Daytime Period (Specific Duration)</td>
<td>7, 52, 57</td>
<td>As in (D) above</td>
</tr>
<tr>
<td>(J) At Daytime Period</td>
<td>68</td>
<td>An Activity that will continue up to a Point at Near Future</td>
</tr>
<tr>
<td>(K) Daytime Duration</td>
<td>2, 43, 45</td>
<td>As in (J) above</td>
</tr>
</tbody>
</table>
### TABLE 43

16. **WOULD HAVE BEEN GOING** (Simultaneous Pre-Later Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) A Future Point</td>
<td>3, 6, 7, 8, 11, 16, 23, 25, 28, 30, 38, 40, 47, 48, 49, 50, 55, 56, 57, 58, 63, 65, 70</td>
<td>A Hypothetical Action or State in the Future</td>
</tr>
<tr>
<td>(B) An Unspecified Point</td>
<td>9, 10, 13, 24, 43, 62</td>
<td>a. A Hypothetical Past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (A) above</td>
</tr>
<tr>
<td>(C) A Past Point</td>
<td>2, 32, 39, 54, 68, 69</td>
<td>As in (Ba) above</td>
</tr>
<tr>
<td>(D) After a Past Point</td>
<td>12, 15</td>
<td>A Hypothetical Post-Past</td>
</tr>
<tr>
<td>(E) Daytime Period</td>
<td>18, 20, 26, 35, 52, 66</td>
<td>Hypothetical Present or Near Future</td>
</tr>
<tr>
<td>(F) Contemporaneous Present</td>
<td>27, 36</td>
<td>As in (E) above</td>
</tr>
<tr>
<td>(G) Simultaneous Present</td>
<td>31, 45</td>
<td>As in (E) above</td>
</tr>
</tbody>
</table>

*contd...*
Table 43 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H) After an Unspecified Point</td>
<td>33, 37, 42</td>
<td>As in (D) above</td>
</tr>
<tr>
<td>(I) An Unspecified Frequency</td>
<td>60</td>
<td>Hypothetical Past (Specific Frequency)</td>
</tr>
<tr>
<td>(J) Before Simultaneous Present</td>
<td>29</td>
<td>As in (Ba) above</td>
</tr>
</tbody>
</table>
(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 tensemes 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 tensemes 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 tensemes 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 tensemes 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**

<table>
<thead>
<tr>
<th>Notional Category (Function)</th>
<th>Representative Tenseme(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 + 5 + 11</td>
<td>2 + 50 + 2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>53</td>
</tr>
<tr>
<td>3</td>
<td>1 + 7</td>
<td>1 + 53</td>
</tr>
<tr>
<td>4</td>
<td>1 + 3 + 7 + 9</td>
<td>50 + 1 + 2 + 1</td>
</tr>
<tr>
<td>5</td>
<td>5 + 7 + 11</td>
<td>30 + 1 + 3</td>
</tr>
<tr>
<td>6</td>
<td>2 + 6</td>
<td>51 + 3</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>8</td>
<td>2 + 3 + 13 + 14</td>
<td>15 + 24 + 4 + 5</td>
</tr>
<tr>
<td>9</td>
<td>5 + 6 + 11</td>
<td>42 + 5 + 7</td>
</tr>
<tr>
<td>10</td>
<td>2 + 4 + 8 + 10</td>
<td>15 + 1 + 30 + 4</td>
</tr>
<tr>
<td>11</td>
<td>1 + 5 + 6 + 13</td>
<td>2 + 21 + 2 + 28</td>
</tr>
<tr>
<td>12</td>
<td>2 + 4 + 14</td>
<td>22 + 30 + 1</td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>54</td>
</tr>
<tr>
<td>14</td>
<td>1 + 3 + 7</td>
<td>27 + 23 + 4</td>
</tr>
<tr>
<td>15</td>
<td>2 + 6</td>
<td>4 + 50</td>
</tr>
</tbody>
</table>

---

8 The numbers of notional categories are as they appear on the Test Two sheet which has been reproduced on pp. 35-37.

9 Numbers are given to various tensemes according to Table 2 on page 231.

contd...
Table 44 contd.

<table>
<thead>
<tr>
<th>Notional Category (Function)</th>
<th>Representative Tenseme(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>2 + 6</td>
<td>49 + 1</td>
</tr>
<tr>
<td>17</td>
<td>8</td>
<td>54</td>
</tr>
<tr>
<td>18</td>
<td>1 + 7</td>
<td>46 + 6</td>
</tr>
<tr>
<td>19</td>
<td>1 + 5 + 6 + 7 + 11</td>
<td>7 + 25 + 3 + 10 + 6</td>
</tr>
<tr>
<td>20</td>
<td>1 + 5 + 7</td>
<td>6 + 2 + 48</td>
</tr>
<tr>
<td>21</td>
<td>5 + 11</td>
<td>13 + 41</td>
</tr>
<tr>
<td>22</td>
<td>1 + 7</td>
<td>2 + 52</td>
</tr>
<tr>
<td>23</td>
<td>2 + 8</td>
<td>41 + 10</td>
</tr>
<tr>
<td>24</td>
<td>6</td>
<td>52</td>
</tr>
<tr>
<td>25</td>
<td>5 + 7</td>
<td>53 + 1</td>
</tr>
</tbody>
</table>

Table 45

<table>
<thead>
<tr>
<th>Representative Tenseme</th>
<th>Represented Notional Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 + 3 + 4 + 7 + 11 + 14 + 18 + 19 + 20 + 22</td>
<td>2 + 1 + 50 + 54 + 2 + 27 + 46 + 7 + 6 + 2</td>
</tr>
<tr>
<td>2</td>
<td>2 + 6 + 8 + 10 + 12 + 13 + 15 + 16 + 23</td>
<td>53 + 51 + 15 + 14 + 22 + 54 + 4 + 49 + 51</td>
</tr>
</tbody>
</table>
Table 45 contd.

<table>
<thead>
<tr>
<th>Representative Tenseme</th>
<th>Represented Notional Category</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4 + 8 + 14</td>
<td>1 + 24 + 23</td>
</tr>
<tr>
<td>4</td>
<td>10 + 12</td>
<td>1 + 30</td>
</tr>
<tr>
<td>5</td>
<td>1 + 5 + 9 + 11 + 19 + 20 + 21 + 25</td>
<td>50 + 30 + 42 + 21</td>
</tr>
<tr>
<td>6</td>
<td>6 + 9 + 11 + 15 + 16 + 19 + 24</td>
<td>3 + 5 + 2 + 50 + 52</td>
</tr>
<tr>
<td>7</td>
<td>3 + 4 + 5 + 14 + 18 + 19 + 20 + 22 + 25</td>
<td>53 + 2 + 1 + 4 + 52 + 1</td>
</tr>
<tr>
<td>8</td>
<td>10 + 17 + 23</td>
<td>30 + 54 + 10</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>1 + 9 + 19</td>
<td>2 + 7 + 6</td>
</tr>
<tr>
<td>12</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>8 + 11</td>
<td>4 + 28</td>
</tr>
<tr>
<td>14</td>
<td>8 + 12</td>
<td>5 + 1</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
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 tensemes 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 tensemes that can linguistically represent it are listed.

TABLE 46

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)*</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>To indicate:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. An Action/State</td>
<td>2 + 8</td>
<td>43 + 47</td>
</tr>
<tr>
<td>that took place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or was to take</td>
<td></td>
<td></td>
</tr>
<tr>
<td>place at a Specifi...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The figures in this column stand for the actual English tensemes 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.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. An Action/State that took place or was taking place at an Unspecific Point of Time in the Past</td>
<td>$2 + 8 + 3$</td>
<td>$5 + 4 + 7$</td>
</tr>
<tr>
<td>3. An Action/State that Follows another in the Past</td>
<td>$2 + 8$</td>
<td>$10 + 4$</td>
</tr>
<tr>
<td>4. An Action/State that Precedes another in the Past</td>
<td>$2 + 4 + 8 + 10$</td>
<td>$2 + 43 + 3 + 57$</td>
</tr>
<tr>
<td>5. A Frequent Action in the Past</td>
<td>$2 + 3(unspecific in past) + 6 + 12$</td>
<td>$2 + 4 + 2 + 2$</td>
</tr>
<tr>
<td>6. A Tentative Future</td>
<td>$2 + 6 + 12$</td>
<td>$1 + 34 + 14$</td>
</tr>
<tr>
<td>7. An Action/State that follows another (as viewed from a Point in the Past)</td>
<td>$6 + 12$</td>
<td>$11 + 18$</td>
</tr>
<tr>
<td>8. An Imaginary or Hypothetical Future Action/State</td>
<td>$6 + 12 + 14 + 16$</td>
<td>$11 + 9 + 8 + 28$</td>
</tr>
</tbody>
</table>

contd...
Table 46 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. A General Habit or Fact (seen as Timeless)</td>
<td>1 + 7 + 9</td>
<td>36 + 10 + 1</td>
</tr>
<tr>
<td>10. An Action/State Going on During a Period of Time in the Past</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>11. A Tentative Post-Future</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>12. A Tentative Pre-Future</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>13. A Hypothetical Pre-Future</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>14. A Hypothetical Present or Near Future</td>
<td>12 + 16</td>
<td>9 + 10</td>
</tr>
<tr>
<td>15. A Tentative Present or Near Future</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>16. An Action/State Continued up to a Point in the Past</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>17. A Hypothetical Past</td>
<td>10 + 14 + 16 + 4</td>
<td>1 + 39 + 9 + 3</td>
</tr>
</tbody>
</table>

contd...
Table 46 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. A Hypothetical Present or Recent Past</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>19. A Hypothetical Post-Past</td>
<td>14 + 16</td>
<td>6 + 5</td>
</tr>
<tr>
<td>20. A Hypothetical Pre-Past</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>21. An Action/State that will take place or will be taking place at a Specific Future Point</td>
<td>1 + 5 + 7 + 11</td>
<td>18 + 29 + 22 + 37</td>
</tr>
<tr>
<td>22. An Action/State that will take place at an Unspecific Future Point</td>
<td>1 + 5 + 7 + 11</td>
<td>3 + 10 + 22 + 16</td>
</tr>
<tr>
<td>23. An Action/State taking place at Simultaneous Present</td>
<td>1 + 7</td>
<td>3 + 33</td>
</tr>
<tr>
<td>24. An Action/State that will take place after a Point in the Future</td>
<td>1 + 5 + 11</td>
<td>2 + 7 + 6</td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. An Action/State that will take place before a Point in the Future</td>
<td>$1 + 3 + 5 + 11 + 13$</td>
<td>$1 + 2 + 17 + 5 + 59$</td>
</tr>
<tr>
<td>26. An Action/State taken place at an Unspecific Point at Recent Past</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>27. An Action/State taken place at an Unspecific Point at Post-Past</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>28. A Continuous Action/State that goes on up to a Future Point</td>
<td>$7 + 9 + 15$</td>
<td>$1 + 1 + 17$</td>
</tr>
<tr>
<td>29. A Continuous or Repeated Action through a Period of Time in the Future</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>30. An Activity Continuing up to Simultaneous Present</td>
<td>$9 + 15$</td>
<td>$59 + 1$</td>
</tr>
</tbody>
</table>

contd...
Table 46 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>31. An Action/State that will take place before a Point at Post-Future</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>32. An Action/State that will be going on up to a Pre-Future Point</td>
<td>15</td>
<td>43</td>
</tr>
<tr>
<td>33. An Activity that will continue up to a Point at Near Future</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>34. An Action/State that takes place within Contemporary Present</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

A cursory look at Table 44 above reveals many noteworthy facts about the English tense system and the functions of its tensemes. First, most of the
notional temporal categories are linguistically represented by more than one tenseme. That is to say, two or more particular tensemes 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 tensemes 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 tensemes shows how greatly similar such tensemes 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 tensemes for example.

Fourthly, it can also be concluded that a fairly comprehensive description of functions of tensemes 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 tensemes as well as the various functions of each tenseme can perhaps more clearly be seen if the tensemes 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 tensemes 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>
<thead>
<tr>
<th>The Tenseme</th>
<th>Its Function(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9 + 22 + 23 + 24 + 25 + 26</td>
<td>36 + 18 + 3 + 3 + 2 + 1</td>
</tr>
<tr>
<td>2</td>
<td>1 + 2 + 3 + 4 + 5 + 6</td>
<td>43 + 5 + 10 + 2 + 2 + 1</td>
</tr>
<tr>
<td>3</td>
<td>2 + 5 + 26 + 27 + 28</td>
<td>7 + 4 + 2 + 11 + 2</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>46</td>
</tr>
<tr>
<td>5</td>
<td>22 + 23 + 25 + 26</td>
<td>29 + 10 + 7 + 17</td>
</tr>
<tr>
<td>6</td>
<td>5 + 6 + 7 + 8</td>
<td>2 + 34 + 11 + 11</td>
</tr>
<tr>
<td>7</td>
<td>9 + 22 + 23 + 24 + 30 + 36</td>
<td>10 + 22 + 22 + 30 + 1 + 3</td>
</tr>
<tr>
<td>8</td>
<td>1 + 2 + 3 + 4 + 10</td>
<td>47 + 4 + 4 + 3 + 3</td>
</tr>
<tr>
<td>9</td>
<td>30 + 32</td>
<td>1 + 60</td>
</tr>
<tr>
<td>10</td>
<td>4 + 17 + 18</td>
<td>57 + 7 + 1</td>
</tr>
<tr>
<td>11</td>
<td>22 + 23 + 25 + 26 + 31</td>
<td>37 + 16 + 6 + 5 + 1</td>
</tr>
<tr>
<td>12</td>
<td>5 + 6 + 7 + 8 + 11 + 12 + 13 + 14</td>
<td>2 + 14 + 18 + 9 + 2 + 2 + ? + 9 + 3 + 2</td>
</tr>
<tr>
<td>13</td>
<td>26 + 33</td>
<td>59 + 3</td>
</tr>
<tr>
<td>14</td>
<td>8 + 18 + 20 + 21</td>
<td>8 + 39 + 6 + 2</td>
</tr>
<tr>
<td>15</td>
<td>30 + 2 + 34 + 35</td>
<td>17 + 1 + 43 + 4</td>
</tr>
<tr>
<td>16</td>
<td>8 + 14 + 18 + 20</td>
<td>28 + 10 + 9 + 5</td>
</tr>
</tbody>
</table>
From comparing the functions of expanded and non-expanded tensemes in Table 47 above, an even clearer picture of the temporal relatedness between the two varieties of tensemes can be obtained. The functions of expanded tensemes are usually indicated in the table by their non-expanded counterparts. This is understandable when it is remembered that expanded tensemes have the same temporal morphemes as their non-expanded counterparts. Besides, expanded tensemes have the additional aspectual morpheme {N}.

The complex interrelationships between tensemes and functions can also be seen in the above table. Each tenseme usually has more than one function, and the same function can usually be linguistically performed by more than one tenseme.

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 tensemes are used by the informants to indicate various functions. It, however, cannot guarantee that some of the systematic, or non-systematic, functions of some tensemes 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 tensemes. Yet, it cannot prevent that some of the tensemes might only be used in very few cases or in fact completely missing as it actually happened in the case of such tensemes as \textit{will have been writing} and \textit{is would have been writing}. It/thus conducive to a better understanding to synthesize the conclusions of both tests to arrive at a fuller description of tensemes and their functions in English.

For the purposes of the above-mentioned synthesis, tables 45 and 47 on the functions of tensemes from Tests Two and Three respectively are used. An individual description is worked out below for each tenseme with all the different functions of that tenseme 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 tenseme are only listed once in the following individual descriptions of tensemes. Simultaneous with the listing of functions, the functions of each tenseme are subdivided into systematic and non-systematic. The criterion used for sorting out systematic versus non-systematic functions of tensemes is, as has already been pointed out on page 221, that any function of a given tenseme is systematic if the temporal formal markers of that tenseme entitle it to indicate that function in the framework of the general tense system and according
to the complementary distribution of tensemes. 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**

   *Frequency*: 25 + 3

   *Co-occurrence 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

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10 The 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-occurrent 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
ill 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 ___ 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 arrived; 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 hours 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 conjunctions)

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 Functions

1. 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 Future

Frequency: 67 + 10
Adverbials: 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 Functions

1. To refer to a Time After a Point in the Future

Frequency: 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 Future

Frequency: 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 Functions

1. 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 tenseme 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)
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. (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)

This 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 Functions

1. To refer to a Duration Earlier than a Point/Period in the Past
Frequency: 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 Past
Frequency: 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 + 60

Adverbials: 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 + 1

Adverbials: 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 sunset; ...

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; yesterday; 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 Habit

**Frequency:** None + 2

**Adverbials:** 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)

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**PRE-LATER PRESENT: e.g. WILL HAVE WRITTEN**

(A) Systematic Functions

1. To indicate a Point of Time which Precedes Another in the Future

**Frequency:** 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.  (3.13)
(f) John will have finished before I leave.  (3.11)
(g) John will have finished by then.  (2.11)

(B) Non-systematic Functions

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 Functions

1. To indicate a Hypothetical Action/State in the Future.
   Frequency: None + 28
   Adverbials: 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 Past
   Frequency: None + 9
   Adverbials: 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 tensemes. 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 tensemes share the same systematic functions with their corresponding non-expanded tensemes. This clearly shows that expanded tensemes 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/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 )

I. GOES

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.

Sentences 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.

Instead 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.
3. 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 yesterday 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.
65. I . . . into town yesterday.
66. One of my neighbours . . . to Italy last year.
67. We . . . to the pictures last Saturday night.
68. 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.


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. When the clock struck three I . . . a book.
16. I . . . the book all morning.
17. He . . . a novel in the library when we saw him last night.
18. I . . . the newspaper when the incident occurred.
19. He . . . the paper when someone knocked at the door.
20. I . . . a magazine when he walked in.
23. I . . . while I was travelling on the bus.
24. Yesterday I . . . some lecture notes.
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.
60. 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.
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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.
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.
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.
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.
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.
35. 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.

59. The man ... for ages.

60. He ... away too early.

61. Tomorrow I ... had this not happened.

62. Before you told me that the trip was cancelled, I thought that I ... to Milan next week.

63. I ... tonight but the buses were on strike.

64. I ... to a party last night if I had not had too much work.

65. He ... to the party on Sunday evening but he had taken ill.

66. 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
AND
CONTRASTIVE ANALYSIS
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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) Format
   / ?ista9mil kullan mina șşiyaghi ttāliya fi

1For the exact Arabic format of this test, see Appendix C.
jumla min 9indika 9alå shart ?an tahwi kulla
jumla min jumalika 9alå wåhid mina 9zurûfi
zzoamaniyya 9ala l?aqall, lâ?iz ?annahu fi hïlali
9siyaghi lfi9liyya lmurakkaba ?adnåh, ?ay llati
tahwi ?akthara min fi9lin wåhid, yumkinuka ?an
tafsîl bayna ?ajzâ?i 9siigha lmurakkaba fi jumalika,
famathalan tasta9 ?an ta9ãa la9il ba9da
sayakûnu wabidhâlika tafsîluhå 9an yaqra? fi
sayakûnu yaqra? ?adnåh, wahâkadå ma9a baqiyyati
9siyaghi lmurakkaba 1?ukhrå. (?azzurûfa zzoamaniyya
mithil: fi ssabåh, 9indamå ra?aytuhu bil?ams,
qabla ?an yüsåfir, ba9da ttakharruj, l?ån, sabåhan,
fi sså9a l9åshira, sâbîqan, ...)

"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 sayakûnu 'will be' and thus separate it from
yaqra? read(ing)'in sayakûnu 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
(1 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 māshiyan/ = '(he) was walking'

7. /satakūnu nā?ima/ = '(she) will be sleeping'

8. /yakūnu yaktub/\(^2\) = -

9. /kāna sayakūnu = '(he) would have been mahzūm/

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 = '(he) would have been yaktub/

20. /takūnu mahjūra/ = -

\(^2\)No 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 Test**

For the Arabic format of this test, see Appendix C.
"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 requirements 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. /?ana (qara?) hādha lkitāb fī lmādi/
   'I (read) this book in the past.'

2. /?abi (dhahab) ?ila ssīnama kullā ?usbū9
   9indamā kāna shābban/
   'My father (went) to the cinema every week
    when he was young.'

3. /?innahu (jālas) bilḥadīqa 9indamā marartu
   9alā dārihi bil?ams/
   'He (sat) in the garden when I passed by his
    house yesterday.'

4. /qāla bi?annahu (sāfar) ba9da takharrujīhi
   lawlā wafāt wālidīhi/
   'He said he (travelled) after his graduation
    but for his father's death.'

5. /nahnu (sāmi9) hādhihi 1?ughniya kathīran
   hādhihi 1?ayyām/
   'We (heard) this song a lot these days.'

6. /?ana (shāhad) hādha lfilim marratayn qabla
   1?ān/
   'I (saw) this film twice before.'

7. /?al?ātfa?lu (kabur) bisur9a 9ādatan/
   'Children (grew up) quickly usually.'

8. /?idhā (sāfar) sallm ?ilā baghdād bilmustaqbal,
   fa?innahu sayażūru lmathafa lbaghdādi ḥatman/
   'If Sallm (travelled) to Baghdad in the future,
    he will certainly visit the Baghdādi Museum.'
9. /(sāfar) salīm ?ilā baghūdād ghādan/
   '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. /qindamā taraktuhu bil?ams, (katab) risāla
    ?ilā wālidihā baghūdā qallī. wālākin yabdu annahū qad ghayyara ra?yahū baghūdā 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. /?āna (katab) risāla qindamā ngata?ga ttayyāru lkahrābā?i fi llayla lmādiya/
    'I (wrote) a letter when there was a power cut last night.'
13. /lam (sāfar) salīm ?ilā baghūdād sābiquān/
    'Salīm (not travelled) to Baghdad before.'
14. /huwa lā yāzāl (dhahab) ?ila ssīnama marra wāhīda kullā shahr/
    'He still (went) to the cinema once a month.'
15. /?ātaqīdu ?annanā lan najid–hu bilbayt qindā dhīhābinā ghādan li?annahū (qara?) fi lmaktaba hinadhāk/
    'I believe we won't find him at home when we go tomorrow as he (read) in the library then.'
16. /?ana (sami9) hādhīhi l?ughniya 9idda marrāt min qablū/
    'I (heard) this song many times before.'
17. /(daras) salīm fi lmaktaba tuwāla yawmi ?ams/
    'Salīm (studied) in the library all day yesterday.'
18. /huwa (sāfar) fi ?ayyati laḥza ba9da l?ān/
    'He (travelled) any moment now.'
19. /(sāfar) ?akhi ?ilā baghdād gabla safari
    ?ilayhā fi l?usbū9i lmādi/
    'My brother (travelled) to Baghdad before I did last week.'
20. /?almuḥādara (ntaha) l?ān lawlā ?as?ilatu
    lḥādirin alkathīra/
    'The lecture (ended) now but for the many questions from the audience.'
21. /zaki (dhahab) ?ila ssīnama ma9i ba9da nihāyati
    l?imtīhān ghadan/
    'Zeki (went) to the cinema with me after the end of the exam tomorrow.'
22. /?ana (zāra) lma9riḍ yawmāma bīl?usbū9i lgādim/
    'I (visited) the show one day next week.'
23. /(?anhā) salīmu lkitāba gabla ssāɡa lkhamīsa
    ghadan/
    'Salīm (finished) the book before five o'clock tomorrow.'
24. /salīm (qaraʔ) bilmaktaba ṭuwāla yawmi lghad/  
'Salīm (read) in the library all day tomorrow.'

25. /hiya (katab) risāla ʔilāʔummihā lʔān/  
'She (wrote) a letter to her mother now.'

26. /(kabur) hādihi shshajara kathiran fi ssana limādiya/  
'This tree (grew) a great deal last year.'

27. /(marid) salīm ṭuwāla ʔusbū9i lmādi/  
'Salīm (was sick) all last week.'

28. /salīm (qaraʔ) kathiran hādihi lʔayyām/  
'Salīm (read) a lot these days.'

29. /(sāfar) nabīl ʔilāʔlandan yawmaʔams/  
'Nabīl (travelled) to London yesterday.'

30. /ʔinna lbāb (kusir) gablā wusūli ʔila ddār bilʔams/  
'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/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**

<table>
<thead>
<tr>
<th>No.</th>
<th>Model Verbal Form</th>
<th>Frequency of Occurrences</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Test I</td>
<td>Test II</td>
</tr>
<tr>
<td>1.</td>
<td>/yaf9al/</td>
<td>49</td>
<td>467</td>
</tr>
<tr>
<td>2.</td>
<td>/fa9al/</td>
<td>60</td>
<td>609</td>
</tr>
<tr>
<td>3.</td>
<td>/yakūnu yaf9al/</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>/kāna fa9al/</td>
<td>54</td>
<td>93</td>
</tr>
<tr>
<td>5.</td>
<td>/sayaf9al, sawfa yaf9al/</td>
<td>69</td>
<td>341</td>
</tr>
<tr>
<td>6.</td>
<td>/kāna sayaf9al/</td>
<td>55</td>
<td>25</td>
</tr>
<tr>
<td>7.</td>
<td>/yakūnu fā9il/</td>
<td>102</td>
<td>1</td>
</tr>
<tr>
<td>8.</td>
<td>/kāna fā9il/</td>
<td>49</td>
<td>63</td>
</tr>
<tr>
<td>9.</td>
<td>/yakūnu maf9ūl/</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>/kāna maf9ūl/</td>
<td>56</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>/yakūnu yaf9al/</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>12.</td>
<td>/kāna yaf9al/</td>
<td>54</td>
<td>128</td>
</tr>
<tr>
<td>13.</td>
<td>/sayakūnu yaf9al/</td>
<td>51</td>
<td>1</td>
</tr>
<tr>
<td>14.</td>
<td>/kāna sayakūnu yaf9al/</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>/sayakūnu fa9al/</td>
<td>41</td>
<td>1</td>
</tr>
</tbody>
</table>

contd...
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. 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. 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 /fä911/ 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 fä911/ is exactly that of /kāna/ or /fa9al/. The active and passive participles /fä911/ 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 /fä911/ and /maf9ūl/ is the subject of a detailed analysis later in this study.
Hence, all verbal phrases whose final components are either /fā9il/ or /māfūl/ 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. 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 sayafūl/ 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:  
(a) yaf9al  (b) fa9al  
(c) sayaf9al  (d) käna fa9al  
(e) sayakünu fa9al  (f) käna sayaf9al  
(g) käna sayakünu 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  
(i) '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. 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: 1681), 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', /saini9/ 'heard', and /makuth/ 'stayed'; for the 'imperfect' he lists present verbs like /yadhhab/ 'goes', /yadrib/ 'hits' as well as imperative verbs like /? idh-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/, /saini9/ 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 /saini9/ 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 /? idh-hab/ as an imperfect

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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.'

(b) /hādha dāribun 9abdulläh säsā9ata/
   'This (man) (is) hitting Abdulla now'.

(c) /hādha qātilu 9amrin ʔamsi/
   '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

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9 Items in parenthesis 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. 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 (BeInuat Al-Maktaba L9aqriyya, 1964), P.114.
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 /fā9il/ and /maf9ūl/ 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 Yāqīsh.

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-Makhzūmi
classifies verbs basically into past, present, and
permansive (p.119). For the past and present, he
gives the representative verbal forms /fa9al/ and/yaf9al/
respectively. For the permansive variety of verbs,
Al-Makhzūmi gives the forms /fä9il/ and /maf9ūl/. He
then mentions the following sentences in which the
form /fa9il/ functions verbally: (p.150).

1. /zaydun qā?imun/
   'Zayd (is) standing'.

2. /? ana sā?imu yawmi lkhāmis/
   'I (am) fasting on Thursday'.

3. /? ana kātibun risālatan/
   'I (am) writing a letter'.

4. /Baynāma kuntu wāqifan, .../
   'While I was standing, ...'

Al-Makhzūmi points out that /fa9il/ 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-Makhzūmi does not mention anything at
all about his criteria for labelling the forms of
/fā'9āl/ as verbal in sentences such as the above but not elsewhere.

(iii) Aṣ-Ṣāmarraʾi's 'Alfi9āl u: Zamanu h wa Zabniyatu hu

Aṣ-Ṣāmarraʾi'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-Ṣāmarraʾi mentions only four out of the seven primary verbal forms. He first mentions the verb /fā'9āl/ and lists some of its functions. Then he does the same with the verb /yaf9āl/. Though Aṣ-Ṣāmarraʾi also mentions verbal forms /kāna fā'9al/ and /sayaf9āl/, like Al-Makhzūmi, he lists the former under the heading of /fā'9al/ and the latter under /yaf9al/. Both Al-Makhzūmi and Aṣ-Ṣāmarraʾi refuse to give /kāna fā'9al/ and /sayaf9āl/ the same status of /fā'9al/ 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. This very brief analysis and secondary status of the verbal form /sayaf9al/, in particular, seems inconsistent with Aṣ-Ṣāmarrāʾi's initial classification of Arabic verbs into past, present, and future (Ṣāmarrāʾi, p.24).

Aṣ-Ṣāmarrāʾi, like Al-Makhzūmi, also mentions that verbal forms like /fā9il/ and /māfūl/ can function verbally in some situations (Ṣāmarrāʾi, 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 qāʾim/. Al-Makhzūmi, as has already been said, regards /qāʾim/ as verbal in the sentence above, whereas Aṣ-Ṣāmarrāʾi says it has a non-verbal function here (p.34). Moreover, Al-Makhzūmi considers /kāna fā9il/ as verbal in sentences such as /kāna muhammad mariḥan/ (Makhzūmi, P.158) whereas Aṣ-Ṣāmarrāʾi says it is not verbal (Ṣāmarrāʾi, P.46). Aṣ-Ṣāmarrāʾi adds that the infinitive could also function verbally and gives the following sentence as representative of such functions (p.41): /yu9jibuni ?ikramaka ddayfa/

(b) Ibrahim Aṣ-Ṣamarrāʾi, Al-Fišlu: Zamānahu wa-?abniyatuhu (Baghdad: Maṭbaḥatu L9āni, 1966), p.29 and p.32.
'I like your entertaining the guest'.

The infinitive /i`ikrāmaka/, Aṣ-Ṣāmarrā?i 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-Ṣāmarrā?i's classification of some infinitives as verbals is questionable.

A common phenomenon with both Aṣ-Ṣāmarrā?i and Al-Makhzūmī 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-Ṣāmarrā?i gives the following sentences respectively:

(p. 41)

1. /zawwajtuka/ (said by the judge in marriage ceremonies)
   (I married you)\(^{13}\)
   ' I marry you '.

2. /?idhā ji?tani ?akramtuka/
   (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 /fa9al/ 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-Sāmarra?i, 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 fa9al/
2. /yakūnu fa9al/
3. /kāna yaf9al/

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-Sāmarra?i 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 šabāh, yakūnu lwalad dhahab
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-Ṣamarrāʾi 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-Ṣamarrāʾi 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 1buḥturi lā yufāriqu bāba 1khalīfa/

' Al-Buḥturi used not to leave the door of the Caliph.'

It is interesting to notice that Aṣ-Ṣamarrāʾi, 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
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 Aḥ-Samarrāʾi'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 Llugha'

Anīs starts his discussion of time and tense by mentioning the traditional division of time into seven logical divisions as follows:

/qabla lmaidī/ /?almaidī/ /ba9da lmaidī/
' before past ' 'past' 'after past'

/?alhādir/ /qabla lmustaqbal/ /?almustaqbal/
'present' 'before future' 'future'

/ba9da lmustaqbal/
'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

15 Ibrāhīm Anīs, Min Asrārī Llugha (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:

/fatah ~ yafaṭāḥ/  ' (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) ʿAbd-Shartūnī's ʿMabādiʿu 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:

(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

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to mention the different verbal patterns that a verb may formally assume in the simple-past and simple-present forms: (p.14).

<table>
<thead>
<tr>
<th>Simple Past</th>
<th>Simple Present</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) /fa9al/</td>
<td>/yaf9al/</td>
<td>e.g. /jalas/ /yajlis/ 'sat' 'sits'</td>
</tr>
<tr>
<td>(b) /fa9al/</td>
<td>/yaf9ul/</td>
<td>/naṣār/ /yansūr/ 'helped' 'helps'</td>
</tr>
<tr>
<td>(c) /fa9al/</td>
<td>/yaf9al/</td>
<td>/fataḥ/ /yaftah/ 'opened' 'opens'</td>
</tr>
<tr>
<td>(d) /fa9il/</td>
<td>/yaf9il/</td>
<td>/ḥāsib/ /yahṣib/ 'sup-posed' 'poses'</td>
</tr>
<tr>
<td>(e) /fa9il/</td>
<td>/yaf9al/</td>
<td>/ḥalim/ /yaḥlam/ 'knew' 'knows'</td>
</tr>
<tr>
<td>(f) /fa9ul/</td>
<td>/yaf9ul/</td>
<td>/karum/ /yakrum/ 'was noble' 'is noble'</td>
</tr>
</tbody>
</table>

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 qa?imun ?abūhu/
   'Zayd's father (is) standing'.

2. /?ana 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 'Nabwa 9rabiyya 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. It is the aspect of completion or incompletion of the action at the time of speech that matters in Semitic languages.

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rather than the time of action (p. 128). Time is only a by-product of completion or incompletion: 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.\(^1\)

In this respect, Wright states that "the temporal forms of the Arabic verb are but two in number, the one expressing a \textit{finished act} ... \textit{(The Perfect)}; the other an unfinished act ... \textit{(the Imperfect)}."\(^2\) 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.\(^3\) 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/

\(^1\) See criticism of this attitude on p. 99 in the present study.


\(^3\) 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 /fa9al/ 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 /yaf9al/ 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 yaf9al/  (b) /yakūnu fa9al/.

(c) /kāna fā9il/  (d) /kāna maf9ūl/

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 yawn 9iddata mirārin/ = '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? 9indama 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


'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:

/zay'dun nakibun ibnuhu ghadan zubaydata/

'Zay'd's son is to be married tomorrow to Zubayda'.

In reference to the temporal value of verbal forms /kāna fāgil/ and /kāna mafqūl/, 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) /kānāt 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." 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

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 (yugaddiru).
   (All time)

3. What ails thee (that) thou art weeping (tadma9īna)?
   (Present)

4. So God shall judge (yahkunu) 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 lqi야마/ '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) Moscati'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

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 those 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
systematic non-systematic
between/functions and/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. 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'." 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

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24 William Bull, Time, Tense, and the Verb (Los

25 Do Lacy O'Leary, Comparative Grammar of the
Semitic Languages (London: Kegan Paul, Trench, Trubner
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/

and /sayaf9al/ specifically "refer to the future" (p.59). Tritton also claims that Arabic verbs that follow the pattern /fa9al/ 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 19ajuzu thiyyabah wakharajat min ۸ujratih/
'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) /käna fa9al/ (d) /sayaf9al/

Of the thirteen secondary verbal forms, he gives two only. These are: (pp.54-59 and p.97)

(a) /käna yaf9al/
(b) /yakunu 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'

Thatchor says that "the verb has two main tenses:
the Perfect ... and the Imperfect."\textsuperscript{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:

\begin{align*}
&\text{(a) } /\text{fa9al/} & \quad & \text{(b) } /\text{kāna fa9al/} \\
&\text{(b) } /\text{yaf9al/} & \quad & \text{(d) } /\text{sayaf9al/}
\end{align*}

The two secondary forms are: \text{(p.74)}

\begin{align*}
&\text{(a) } /\text{kāna yaf9al/} \\
&\text{(b) } /\text{yakūnu fa9al/}
\end{align*}

No detailed account of functions is given for any of the above six verbal forms.

\textsuperscript{27} G.W. Thatcher, 	extit{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

"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.

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:

1. /mā hasuna 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

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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" and from his other remark that "the imperfect denotes the present or futuro, 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),

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 navāfidhuha/
   '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 /jādīdatun/ '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 /katibun/. 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

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32 To replace /katibun/ by an adjective like /sa9 bun/ '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

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 '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. Traditionally, Thacker says, verbal forms in Semitic languages are regarded as having no temporal connotations. But, he continues, "there is, however, a verb ... which".

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 discontinous 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 \(\textit{ktb}\) 'write' for example is \(\textit{intercalated}\) with a \(\textit{a}\) to form the imperfective variant \(\textit{ktub}\)."\(^{36}\) 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 \(\textit{a}, \:\textit{i}, \text{ or } \textit{u}\), depending on the root" (p.27). The stem vowel of one verbal form


\(^{36}\) \textit{Ibid}; (underlining is mine)
is, however, not reliably predictable from the vowel of the other. Though the writer 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 e. 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 ße'

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/. What concerns us here are the following two functions (p.35).

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 ?abi ṭawīlan/
   '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 /?abi ṭawīlun/ "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

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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 that:

an Imperfect form occurs in past time not because it denotes the incompleation 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 /fn9al/ 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 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
   bil?ams ... ba9da
   qalīl/ 'a little
   while after I left
   him yesterday'

4. The Present Moment: /l?ān / 'now'

5. Before the Present Moment: /qabla l?ān/ 'before now'

6. After the Present Moment: /ba9da l?ān/ '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 l?imtibān
   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 Tensemes.
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:

```
<table>
<thead>
<tr>
<th>Earlier PAST</th>
<th>Later</th>
<th>Earlier PRESENT</th>
<th>Later</th>
<th>Earlier FUTURE</th>
<th>Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past</td>
<td></td>
<td>Present</td>
<td></td>
<td>Future</td>
<td></td>
</tr>
<tr>
<td>/kāna fa9al/</td>
<td></td>
<td>/kāna sayaf9al/</td>
<td></td>
<td>/sayaf9al/</td>
<td></td>
</tr>
</tbody>
</table>
```

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 fa9ā/ 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 \( \{D_1\} \) 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 triliteral verbal stem has one vowel each, e.g. /(ya-)KTuB/ 'writes'. Yet, for the sake of consistency with past verbal stems and because quadriliteral verbs like /(yu-)TaRjiM/ 'translates' have two vowels each, a zero vowel is hypothesized between the initial two radical consonants of triliteral verbs. Thus the non-past allomorph in /-KTuB/ is /∅ - u/; in /-SMa9/ is /∅ - a/; and in /-HSiB/ is /∅ - i/. The symbol \( P_1 \) 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 \{D_1\} or \{P_1\} 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**

<table>
<thead>
<tr>
<th>Type of Root</th>
<th>Vocalic Pattern of Past</th>
<th>Examples</th>
<th>Vocalic Pattern of Non-past</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tri-Consonantal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. /a-a/</td>
<td>a. /fatah/</td>
<td>'(he) opened'</td>
<td>a. /-a/</td>
<td>a. /ya-fatah/</td>
</tr>
<tr>
<td></td>
<td>b. /-arab/</td>
<td>'(he) hit'</td>
<td>b. /-i/</td>
<td>b. /ya--rib/</td>
</tr>
<tr>
<td></td>
<td>c. /katab/</td>
<td>'(he) wrote'</td>
<td>c. /-u/</td>
<td>c. /ya--tub/</td>
</tr>
<tr>
<td>2. /a-i/</td>
<td>/sam19/</td>
<td>'(he) heard'</td>
<td>/-a/</td>
<td>/ya-sma9/</td>
</tr>
<tr>
<td>3. /a-u/</td>
<td>/karum/</td>
<td>'(he) was noble'</td>
<td>/-u/</td>
<td>/ya--rum/</td>
</tr>
<tr>
<td>11. Quadri-Consonantal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. /a-a/</td>
<td>/tarjam/</td>
<td>'(he) translated'</td>
<td>/a-i/</td>
<td>/yu-tarjim/</td>
</tr>
</tbody>
</table>
The above analysis of Arabic tense is based upon the vocalic contrast between the past versus the non-past verb boxes. 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 'Tensemo' 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 \( P_1 \), 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 \( D_1 \), 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 tensemes of that tense. Tense could also be defined, in somewhat different words, as a class of tensemes that are temporally similar and appear in complementary distribution. Temporal similarity among the tensemes 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, tensemes whereas it is a past point of time for all past tensemes. Formally, this common point of orientation is realized in the common tense marker that the tensemes of either tense carry, viz. \( P_1 \) for non-past tensemes and \( D_1 \) for past tensemes.

(D) Aspect and Aspectual Markers

By the 'complementary distribution' of tensemes, which has just been mentioned above, is meant that the tensemes 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 \(D_2\) and \(P_2\), respectively). 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

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\(^4\) The symbol \(D_2\) rather than \(\emptyset_2\) is chosen for earlier aspect since the former symbol would show the close temporal relationship of earlier aspect with \(D_1\), viz. the past-tense marker. Temporally, earlier aspect and past tense have a lot in common.
its absence signals earlier aspect. 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 $\{P_2^+\}$ and $\{P_2\}$, respectively). Posteriority is indicated by the pre-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.\(^5\)

\(^5\)It 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. A verbal base like /yaf9al/ in the verbal phrase /käna 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 verbexes 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 tenses. The tenseme /katab/ '(he) wrote', for example, is simultaneously marked both by the past-tense marker \(D_1\) and by the earlier aspectual marker \(D_2\).

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 tensemes, 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 tensemes.
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 phrasos. According to such a hypothesis, the compound tenseme/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/its tensemes. The case of /kāna yaktub/, just mentioned above, would be typical of /yakūnu katab/, /kāna sayakūnu yaktub/, and many other similar Arabic phrasal tensemes. 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

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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.
Different Kinds of Tensemes In Arabic

The presence or absence of aspectual markers as well as their number in verbal phrases results in a variety of tensemes in Arabic. These may be as follows:

1. The Simple Tensemes

Any verb can only have two simple tensemes 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 tensemes. 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. 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

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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 recognize /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 tenses 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 tenses, 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 nā?im/ '(he) was sleeping', etc... Consequently, aspectual markers are temporally significant in Arabic verbids.

12 For root, stem, and radicals, see Definitions in Part One.

2. **The Compound Tensemes**

Compound tensemes 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 nä?im/ = \{D₁\} + \{P₂∅\}
   ' (he) was sleeping'

3. **The Complex Tensemes**

A complex tenseme is a verbal phrase that has two aspectual markers in addition to the basic tense marker. Complex tensemes may be represented by the following verbal phrases in Arabic:

a. /kāna sayakūnu nä?im/ = \{D₁\} + \{P₂⁺\} + \{P₂∅\}
   ' (He) would have (been) sleeping'

b. /sayakūnu säfar/ = \{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 Binarity**

The binary analytical approach has been successfully used in the description of various linguistic aspects
Many languages. 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'.

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., any time except the

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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 tensemes /tushriq/ 'shines', /taqa9/ 'is situated', and /yuḥqibb/ 'likes' to indicate temporal fields that extend over the past, present, and the future in the following sentences:

1. /? ashshamsu tushriq ? athnäʔa nnahäʔ/ 'The sun shines during the day.'
2. /baghdäd taqa9 9alä dijla/ 'Baghdad is situated on the Tigris'.
3. /? akhi yuḥqibbu; iqiräʔa/ '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 yusäfir ghadan/ 'He travels tomorrow'.
2. /hiya taktub risäla lʔän fi ghurfatiха/ 'She (is) writ(ing) a letter in her room now'.

The non-pastness of the simple-present tensemes /yusäfir/ 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?an/, respectively.

This becomes even clearer from the ungrammaticality of sentences such as the following:

1. */huwa yusäfir 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 tenses with specifically past temporal adverbials.

It is important to notice that contrastive pairs within the Arabic tense system 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 \( \{D_1\} \) and so is the non-past tense marked by \( \{P_1\} \). 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'.

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'. 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

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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. /?al?ārdu?kurwāyya/  
   (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 tensemes with the help of certain temporal adverbials of simultaneity, e.g.:

/hum yal9abūna l?ān/  
'They (are) play(ing) now.'

The latter use of adverbials of simultaneity with the present-simple tensemes 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
\{P_1\} '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 /∅-u/.. The result can be formulated in
the following string:
\{P_1\} + \{KTB\} + \{P_2\}

Now, \{P_2\} 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\} + \{P_1\} + \{KTB\} + \{P_2\}

Morphophonemically, \{KWN\} + \{P_1\} give /yakūnu/
/takūnu/ /nakūnu/, etc. while \{KTB\} + \{P_2\} 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
tensemes, just mentioned in relation to the non-past tense, Arabic must have the earlier non-past tenseme /yakûnu 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 sabāh ?akūnu taraktu lbayta ?ila jjāmi9a/

'By nine every morning, I have left home for the University.'

The earlier-tenseme /?akūnu 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 \textit{past} vs. \textit{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 tensemès 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.

\textit{/huwa yūsāfir 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:

\textit{/fi ssana lqādimu yakūnu rajītu 'ila l9irāq/}

'By next year, I (will) have returned to Iraq.'

Such functions of tensemès that depend on associations with certain temporal adverbials are not regarded as systematic however since, on their own, the tensemès will be unable to indicate the same linguistic
functions.\textsuperscript{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 tenseeme. Thus the equivalent of both English tenseemes in:

1. I \textit{saw} the film last week, and
2. I \textit{have seen} the film already,

is the simple-past tenseeme /ra?aytu/ '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 tenseeme /yakûnu fa9al/ which in some of its uses may indicate earlier-present, though always with tentativeness, as in:\textsuperscript{20}

/l?ān yakûnu qad sāfar/

'(By) now, (he will) have gone.'

(B) Earlier Aspect

In a binary analysis of aspect in Arabic, the earlier aspect \{D\textsubscript{2}\} is \textit{temporally} the 'marked' member

\textsuperscript{19} See Chapter Six for a full discussion and analysis of the 'systematic' versus the 'non-systematic' functions of tenseemes in Arabic.

\textsuperscript{20} See Chapter Six on the different function /yakûnu 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 \(D_2\) 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 \(D_1\) in the form of \(/a-a/\), will become as:

\[
[D_1] + [KTB] + [D_2]
\]

when the earlier aspectual marker \(D_2\) is also used. The tense-carrier \(KWN\) is then introduced to carry the floating tense-marker \(D_1\). This will give:

\[
[KWN] + [D_1] + [KTB] + [D_2]
\]

\(KWN\) plus \(D_1\) will formally be represented by /kāna/ while \(KTB\) plus \(D_2\) 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 /9indamā 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 tensemes 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. /ʔanaʔaktub 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 tensemes /ʔaktub/ and /yusāfir/ help to indicate respectively simultaneity with and laterness than the point of reference of the non-past tensemes, which is the moment of speech.²¹

(C) Simultaneous Aspect:

As for the specialized markers of simultaneity and posteriority, Arabic uses the markers {P₂Ø} 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 /mudāḥrij/ '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 \{P_2+\} 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 idiosyncracy about the linguistic behaviour of the later-aspectual marker in Arabic: \{P_2+\} 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 base\(^{22}\) is still unviolated, however. This is since \{P_2+\} 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 \{P_1\} + \{P_2+\} 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 tenses */sasāfar/ 'would travel', */sakatab/ 'would write' and */satarjām/ '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.
any verbal form, even when one of them lies outside the verbal base. Consequently, Arabic has the following tensemes for the above three ungrammatical later-past ones respectively:

\[ \text{/kāna sayusāfir/} \quad \text{'would travel'} \]
\[ \text{/kāna sayaktub/} \quad \text{'would write'}, \text{ and} \]
\[ \text{/kāna sayutarjim/} \quad \text{'would translate'} \]

It has to be pointed out therefore that it is one of the indiosyncracies 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 \[ \text{/yakūnu sayaf9al/} \] side by side with the idiosyncratic \[ \text{/sayaf9al/}. \]

The fact is still, however, that Arabic has both later-present tensemes 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 tensemes somewhat differently. The shorter form \[ \text{/sayaf9al/} \] 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', tenseme is a sentence like the following:

/фи митли хадха лваقي мин кулли саиф назну 
накуну санусифир ?илаП лубәан/

'At this time every summer we are (just about) to travel to Lebanon.'

The ability of all non-past tensemes to refer to the future when associated with adverbials of futurity enables this variety of later non-past tenseme 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:

/фи хадха лваقي гхадан ?акуну са?усифир ?илаП 
?адибарә ба9да сә9атәйн/

'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 tenseme. 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.:

/фї таmмuз sanuсaфr /иlа lubнаn/

'In July, we shall travel to Lebanon.'

(G) The Temporal Distribution of Arabic Tensemes

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}, {P₂₀} 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 tensemes for each of the two tenses in Arabic. These three main kinds of tensemes are as follows:

1. Basic Tensemes

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 tensemes refer to the whole temporal field of that tense).

24 These tensemes are regarded as 'main' since each is unique in indicating a specific temporal order, whereas all other tensemes consist of different combinations of these three orders.
2. **Earlier Tensemees**

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 Tensemees**

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 tensemees, 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 yawn/ )

'He sleeps early everyday ) = Basic

(b) /huwa yanām lʔan/ )

'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
'He (will) have slept by now.'
= Earlier
Present

(d) /huwa sayanām/
'He will sleep.'

(e) /huwa yakūnu sayanām fi
hādha lwaqti ghadan/
'He (will) be (about) to go
to sleep at this time tomorrow.'
= Later
Present ²⁸

2. Past Tense:

(a) /huwa 'shtag'h'aia kathiran
9indāmā kāna šābban/
'He worked hard when he
was young'
= Basic
Past

(b) /huwa 'shtaghala kathiran
yawma ?ams/
'He worked hard yesterday'.

(c) /huwa kāna 'shtaghala kathiran
qabla maradihi fi shshahri
lāmādī/
'He worked hard before his
illness last month.'

(d) /kāna sayashtaghil kathiran
ba9da wusūlinā bil?ams
'(He) would work hard after our
arrival yesterday.'

(H) Temporal Chart for Arabic Tenses and Tensemes

The seven primary tensemes 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](Image)

Giving each tense its three main tensemes mentioned earlier would yield the following diagrams:

![Diagram 20](Image)
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 tensemes appear in the diagrams above. The two tensemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ are not indicated in the binary analysis as given above. The two missing tensemes, 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:

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 tensemes, 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 \{D_1\} and \{P_1\}, whereas the aspectual markers \{D_2\}, \{P_2\}, \{P_2+\}, and \{P_2\emptyset\} represent the temporal orders. All Arabic tensemes 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:

```
  VERB
    /
   /  
  Root + Temporal Marker
     /
   /  
Tense Marker  Aspect Marker
     /
 /  
Past  Non-Past  Earlier Simultaneous Later
{D₁} (Present) {D₂} {P₁} {P₂Ø} {P₂⁺}
```

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). This explains the presence of a form of /kāna/ in Arabic compound and complex tensemes.

It is finally important to realize that Arabic tensemes 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.

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30 For the special case of the later-present tenseme /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 tensemes with duration or simultaneity temporal values, but otherwise without unique locational values, have not been included among the seven primary tensemes discussed in Chapter Three. Such secondary tensemes are regarded as forming sub-systems within the framework of the general system discussed in the previous chapter.

The manipulation of Arabic tensemes to indicate
various concepts other than time is also discussed under certain sub-systems since such non-temporal uses of tensemes 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 tensemes 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 tensemes, 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 \( \{D_1\} \) and the latter by \( \{P_1\} \). All Arabic tensemes are to be oriented in time to either of the above-mentioned points of reference. Moreover, it has been stated that every tenseme 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 tensemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ represent the two major exceptions. This is why these two tensemes were not incorporated earlier in the formal-temporal diagram of primary tensemes 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 \{P_2^+\} in /sa-/ plus the pronominal prefix /ya-/ and for earlierness by \{D_2\} 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 tensemes. 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. /käna sayakūnu fa9al/ is not dissimilar. Again it has two contradictory aspectual markers, i.e. of laterness and of earlierness. The whole tenseme is formally marked for orientation to a past point of reference by \( D_1 \) in /käna/. 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 tensemes.

The above discussion on the simultaneous double orientation of the complex tensemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ may be given a diagrammatic representation as follows:

![Diagram 24: Simultaneous Double Orientation in Arabic](image-url)
To incorporate the two primary tensemes /sayakūnu fa9al/ and /kāna sayakūnu fa9al/ in the general diagram of the primary tensemes shown on page 503, the following expanded diagram is drawn:

Diagram 25
The General Temporal Chart of Arabic Tensemes

Diagram 25 above assigns temporal locations to all the seven primary tensemes of Arabic listed on page 408. It remains, however, to explain the temporal values of the secondary tensemes in Arabic, viz.
verbal clusters that contain the aspectual markers of simultaneity and non-earlierness. Such tensemes 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 Tensemes

1. 'Active' and 'Passive' Participles

As has already been mentioned in Chapter Three, simultaneity in Arabic is formally indicated by the temporal aspectual morpheme \( P_2\). 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:

\[\text{/nā'īm/ 'sleeping', /wāqīf/ 'standing', /mutārjīm/ 'translating', etc. whereas the passive participles are forms such as: /māksūr/ 'broken', /māktūb/ 'written', /māhjūr/ 'deserted', /māmmūn/ 'forbidden', /mutārjām/ 'translated', etc. Participles, when used verbally in Arabic,}^{2}\text{ indicate simultaneity with a point of reference or with another action/state if one is}

\footnote{For the verbal vs. the non-verbal uses of participles see pp. 519 - 527.}
mentioned in the sentence, e.g.:

1. /huwa sayakūnu nā?im laylan/
   'He will be sleeping at night.'
2. /kāna nā?im 9indamā dakhaltu/
   '(He) was sleeping when I entered.'
3. /kānat ?ashshawāri9 mahjūra 9indamā waṣaltu/
   'The streets were deserted when I arrived.'

In sentence 1 above, the aspectual marker {P29S} 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, {P20} 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 {P20}; it depends on the point of overlapping between the two simultaneous actions. In a sentence like:

/kāna nā?im 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 'medi4al.'
Whereas in a sentence like

/kānat ?annāfidha maksūra 9īndamā 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. 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.

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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 \( P_2 \) may be added. The distinction between 'bounded' and 'non-bounded' predications or between 'telic' versus 'atelic' verbs has already been made for English (Allen, p. 198), French, Spanish, (Bull, pp. 44-49) and German. Arabic predications seem 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 predications takes place, it is at once realized. A predication like /qara? a 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, /qara? a lkitāb/


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. 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 qāri′an lkitāb 9indamā waṣaltu/
   'He had been reading the book when I arrived.'
2. /kāna jālisān fi lḥadiqati 9indamā waṣaltu/
   'He was sitting in the garden when I arrived.'

Both the above sentences are formally marked by: {D₁} + {P₂Ø}

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 {P₂Ø} 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

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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 tensemes with participles that have been listed on page 405. These tensemes are:

1. /yakūnu fā9i1/  
2. /yakūnu maf9ūl/
3. /kāna fā9i1/  
4. /kāna maf9ūl/
5. /sayakūnu fā9i1/  
6. /sayakūnu maf9ūl/
7. /kāna sayakūnu fā9i1/  
8. /kāna sayakūnu maf9ūl/

To provide a simple temporal analysis for the above eight tensemes, 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)

   (i.e. Simultaneity with a Future Point)

   (i.e. Simultaneity with a Future Point)

   (i.e. Simultaneity with a Future-in-Past Point)

   (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 /fā9ūl/ and the one opposite it above with /māfā9ūl/ 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 tensemes that appear in the second column above. A hasty disregard of tensemes with passive participles may, however, prove unwise since there may be certain linguistic situations, regardless of voice, where such tensemes 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 $P_2$ 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. Thus in the following sentences, the underlined participles are nominals:

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 /kitabı/ 'my book', /sā9atak/ 'your watch', /?abūh/ 'his father'. An adjective, on the other hand, is a form that can be inflected for degree, such as /jamīl/ 'pretty', /?ajmāl/ 'prettier', /tawāl/ 'tall, long', /?atwal/ '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. /qabaḏat ?ashshurṭa 9alā qātili lmar?a/
   'The police have arrested the woman's murderer.'

3. /?annā?im lā yarā/
   'The sleeper does not see.'

4. /?almadīnūna 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. /qabaḏat ?ashshurṭa 9alā ?ibni lmar?a/
   'The police have arrested the son of the woman.'

3. /?arrajulu lā yarā/
   'The man does not see.'

4. /?alsujana?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 na'im/
   'He (is) asleep.'

2. /albāb maftūh/
   'The door (is) open.'

3. /arrajulu ja'lis ?akhi/
   'The sitting man is my brother.'

4. /alqalamu lmaḳsūr qalami/
   'The broken pencil is mine.'

Replacing the above four participles by adjectives would yield in the following grammatical sentences:

1. /huwa dḥaki/
   'He (is) clever.'

2. /albāb jadīd/
   'The door (is) new.'

3. /arrajulu ṭṭawīl ?akhi/
   'The tall man is my brother.'

4. /alqalamu lʔahmar 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. It is observable, however, that participles occurring independently, i.e. without being part of a verbal cluster, are usually replaceable in Arabic by adjectives.
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 kāţib 9aţīm/
   'He (is) a great writer.'

2. /huwa nāţīm/
   '(He (is) asleep.'

Consequently, to indicate simultaneity of any action with the present point of speech, Arabic resorts to basic-present tense-mes plus some adverbials of inherent temporal simultaneity, e.g.:

1. /huwa yaktubu līţān/
   'He (is) writ(ing) now.'

2. /huwa yānāţī fi lwaqti lḥādīr/
   '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 nā?im 9indāmā dhahabtu/
   'Salīm was sleeping when I went.'
2. /kāna lbāb maftūḥ fi ǧḥabāh/
   'The door was open in the morning.'
3. /satakūnu shsharsu sātiqa fi ǧsayf/
   'The sun will be shining in summer.'
4. /kānati nnāfīdha ǧaksūra 9indāmā wasaltu/
   '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 nā?im/ is correctly replaceable by the verb /nāma/ to yield:

/salīm nāma 9indāmā dhahabtu/

'Salīm went to sleep when I went.'

but not by adjectives or nouns. The following, for example, are ungrammatical:

1. */salīm ǧāghīr 9indāmā dhahabtu/
   '*Salīm little when I went'
2. */salīm rajul 9indāmā 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 qāriʔu 1kitāb ghadan/,
   (He reading the book tomorrow)
   'He will have read the book (by) tomorrow'

the independent active participles /kātib/ and /qāriʔ/ 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 {P₂₀} 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 nä?im/

'He (is) asleep.'

2. /?albāb maftūḥ/

'The door (is) open.'

the participles /nä?im/ and /maftūḥ/, 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 {P₂₀} does not suggest any simultaneity at all when part of a participle with a nominal function. Thus in:

/?annā?im lā yadri mā ḥawlahu/,

'The sleeper does not know what is around him.'

the active participle /?annā?im/ 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. 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 Tensemes

Arabic seems to distinguish in its verb system between temporal non-earlierness and temporal simultaneity. The latter is indicated by participal 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 \( P_2 \). Formally, it has already been stated that the morpheme \( P_2 \) is indicated by pronominal prefixes attached to verbal stems to form verbal bases. 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 šštábān/
   'he was writ(ing) in the morning.'
2. /sayakūnu yaktub fi lmāsān/
   'He will (be) writ(ing) in the evening.'

The action of 'writing' was going on during a past time

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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 laterness. The former was said to be indicated by \{P₂₀\} and the latter by \{P₂⁺\}. It thus appears that the simultaneity of \{P₂₀\} 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.  

More specifically, it may explain why Arabic can make use of both participles and non-earlier verbids in the indication of simultaneity, 

\[a. \text{/kāna jālis fī lḥadīqa/}
\]

'(He) was sitting in the garden.'

\[b. \text{/kāna yajlis fī lḥadīqa/}
\]

'(He) was sitting (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 \{P_2\} in /yajlis/ has just been shown to be of a more durative nature than the \{P_2\} 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 /jālas/ 'sat' with a past time. The same 'durativeness'

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14 See Ibrāhīm Anīs who has pointed out this close temporal relationship in many quotations from the Holy Quran 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 \( P_2 \) can be seen in the following typical Arabic sentences:

1. /kāna yaskun fi iblyārā/
   '(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 lhāḍīqa kullā yawm/
   '(He) was sitting in the garden everyday.'

2. /kāna yajlis fi lhāḍīqa kullā 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 \( P_2O \) for simultaneity or \( P_2^+ \) for lateness, or (2) by adding specifying temporal adverbials to \( P_2 \). Thus to specify simultaneity in Arabic, \( P_2O \) 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:

/\( k\äna 'yajlis fi l\äd\äqa 9indam\ä wa\äsaltu/\n
'(He) was sitting in the garden when I arrived.'

The temporal adverbial /9indam\ä wa\äsaltu/ 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 \( P_2O \), rather than indicate its original reference of a repeated and a durative action/state. To use such temporal adverbials as the above with \( P_2O \) would be redundant, though still linguistically permissible and in fact quite common in Arabic, since \( P_2O \) 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 \( P_2O \) 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 \( P_2O \).
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', /9amil/ '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 /gäri?/ or /kätib/ 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 kätib 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 qāri? l-kitāb/
   '(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 kātib 9azīm/
   'Salīm was a great writer.'

2. /kāna salīm qāri? jayyīd/
   'Salīm was a good reader.'

3. /kāna salīm 9āmil ?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 kātib 9azīm/,
'Salim (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 näʾīm 9īndamā wasaltu/, '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.

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 \( P_2 \). In the following sentences, therefore, simultaneity is indicated by the non-earlier aspect plus the adverbials of simultaneity:

1. /kāna yaktub 9īndamā dakhaltu/ '(He) was writ(ing) when I arrived.'

2. /sayakūnu yagra? ʾi ʾdhālika ʾlwagt/ '(He) will (be) read(ing) at that time.'

3. /yakūnu yarsīm kullāna ʾazūruhu/ '(He) is draw(ing) whenever I visit him.'
Even with verbs whose participles can indicate simultaneity, viz. atelic verbs, such as /mashā/ 'walked', /rakaṣa/ 'ran', etc., simultaneity, which is basically marked by \( \{P_2\} \) in verb, can alternatively be indicated by the non-earlier morpheme \( \{P_2\} \) plus certain temporal adverbials. Thus the following sentences in each pair are alternative means of expressing simultaneity in Arabic:

1. (a) /kāna māshiyan (9indamā ra?ayatuhu)/\(^{21}\)
   '(He) was walking when I saw him,'

   (b) /kāna yamshi 9indamā ra?aytuhu/
   '(He) was walk(ing) when I saw him.'\(^{22}\)

2. (a) /kāna rākidān (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 tensemes on page 405 at the beginning of Chapter Two. The following four tensemes can now be temporally analyzed in light of the above discussion on non-earlierness as follows:

1. /yakūnu yafṣal/

   = Non-Past + Non-Earlier

   (i.e. 'Durativeness' at Non-Past)

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\(^{21}\) 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 yaf9al/
   = Past + Non-Earlier
   (i.e. 'Durativeness' at Past)

3. /sayakūnu yaf9al/
   = Non-past + Later + Non-earlier
   (i.e. 'Durativeness' at Future)

4. /kāna sayakūnu yaf9al/
   = Past + Later + Non-earlier
   (i.e. 'Durativeness' at Future-in-Past)

Thus all the twenty Arabic tensemes 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 Tensemes**

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 tensemes 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 tensemes. For this purpose, the temporal locations of tensemes as indicated on the general temporal chart of Arabic tense shown on page 512 are considered as the norm. The basic-past tenseme /jā?a/ 'came', for instance, is back-shifted in the following sentence:

/ʔidḥā jā?a ǧhadān ḥadḥhabu ma9ahu/

'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 /jā?a/ 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 /jāʔa/ 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 tensemes in Arabic; namely, the unusual linguistic environments in which they occur. A past tenseme like /jāʔa/ '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 /jāʔa/.

Clues given by similar unusual co-occurrences are quite common in shifted tensemes in general.

Tensemes, 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 tensemes 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 tenseme belongs to a tense different from the tense of the expected tenseme, 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 combing 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 ilāhu ʾīka/
   'May God bless you! '23

2. /raḥimahu ilāh/
   'May God have mercy on him! '
   (usually said on mentioning a dead person)

3. /raḍiyah ilāhu ʾaḥnu/
   'May God be pleased with him! '
   (said on mentioning one of the close friends or relatives of the Prophet)

4. /ṣalla ilāhu ʾalayhi wasallām/
   'May God bless him and give (him) peace! '
   (said on mentioning the Prophet)

In the above four sentences, the basic-past tenses /bāraka/, /raḥima/, /raḍiyah/ and /ṣalla/ 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. In the light

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23 Notice that the English translations are not representative in those sentences as English does not use past tenses 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:

/la9ānahu llāh/

'May God curse him!'

The latter is achieved by negating the optative by the lexeme /lā/, e.g.:

1. /lā bāraka llāhu fīhi/

'May God not bless him!'

2. /lā ra?at khayrān fī ḫayrīhā/

'May she not see any good in her life!'

1.2 Back-Shifting in Assessorative Utterances

In assessorative 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

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24 See page 196 for more details.
value of the present-tense marker in referring to the present and/or the future.\textsuperscript{25}

Assoverative 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.'\textsuperscript{26}

2. /zawwajtuka hādhihi lmar?a/
   '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 assoverative 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

\textsuperscript{25} It may be mentioned here that simple non-past tenses are also used sometimes in an assoverative sense, e.g. /?a?ādīdūka/ '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.

\textsuperscript{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 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 yuṣāfira (ghadan)/

"(He will) not travel tomorrow."

3. /lan ?adhhaba ma9akum/

"(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 /?in/ or by the particle /?idḥā/, whereas hypothetical conditional sentences are introduced by /la?/ 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 /?idḥā/ 'if' may occur in sentences like the following in Arabic.30

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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. /ʔiddā jāʔa dhahbatu ma9ahu/
   'If he comes, I shall go with him.'
2. /ʔiddā jāʔa ʔadhhabu ma9ahu/
   'If he comes, I shall go with him.'
3. /ʔiddā jāʔa ʔadhhab ma9ahu/
   '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 /ʔiddā/ is invariably a basic-past tensemo 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. In all three sentences, however, the six tenserses are back-shifted since futurity is usually indicated in Arabic by a later-present tensemo. Yet, in all cases of basic-past tense notens this backward shifting is achieved through a shift in the tense marker from the expected \( P_1 \) of the present tense to the shifted \( P_1 \) 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 tense notenses are also marked by \( P_1 \) like the expected ones. The aspectual marker of lateness \( P_{2+} \) of the expected tense notens is, however, omitted in the shifted tense notenses.

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 /?idhā/ 'if' can also be used with conditional sentences to indicate pastness in sentences like the following one:

/kāna ?idhā jā?a dhahabtu ma9ahu/

(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 jā?a/ and the expected /jā?a/ belong to the past tense and are consequently both marked by the same tense marker, viz. {D₁}.

The particle /?in/ 'if' can also be used in Arabic to introduce conditional sentences which indicate futurity. Such sentences can be of various patterns, e.g.:³²

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³² Notice again that the English translation is unable to show the formal variations of tenses in the four Arabic sentences above.
1. /?in tadrus tanjah/
   'If you study you will succeed.'
2. /?in darasta najahta/
   'If you study you will succeed.'
3. /?in tadrus najahta/
   'If you study you will succeed.'
4. /?in darasta tanjah/
   'If you study you will succeed.'

Both tenses in sentence 1 above are formally basic-present tenses used to indicate futurity. They are back-shifted, as a later-present tense is normally used to indicate futurity in Arabic. Since both the shifted and the expected tenses 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 tenses /darasta/ and /najahta/ are basic-past tenses and belong to a tense different from that of the expected later-present tenses. Thus, sentence 2 above provides two examples of tense back-shifting in Arabic. In each of sentences 3 and 4, one tense is basic past while the other is basic present. Though both are back-shifted, the two basic-past tenses, viz. /najahta/

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33 All simple-present tenses appear in the jussive mood in conditional sentences after /?in/ 'if'.
in sentence 3 and /darasta/ in sentence 4, are examples of tense back-shifting. The other two tenses are aspectually back-shifted.

Like /?idhā/, the particle /?in/ 'if' can introduce conditional sentences which refer to a past time. The following sentence is representative of such past conditional sentences:

/?in kāna (qad) dhahab faqad nadin/

'If he had gone, he would have become sorry.'

The main clause tense /nadin/ is not shifted since it is used here according to its characteristic temporal location on the general temporal chart. The conditional clause tense /kāna dhahah/ 'had gone' is, however, back-shifted as it is assuming the temporal value of a simple-past tenseme. 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 jā?a la?akramtuhu/

'If he had come I (would have) honoured him.'
2. /law jā?a lakuntu ?akranthu/  

'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 jā?a/ in sentence (1) and /lakuntu ?akranthu/ 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..."
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 yusafir bil?ans/ 'He did not travel yesterday.'
3. */lam ya?dar?i?i?ijtim?9/ 'He did not attend the meeting.'

The three basic-present tenseses */yaktub/, */yusafir/ and */ya?dar/ 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 tenseses. The three above-mentioned tenseses are therefore shifted. All three tenseses 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 tenseses. It is also a case of tense, rather than aspeectual shift, as the expected and the shifted tenseses 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? hādi? fi lghurfa lmūlīma washāqartu bilkhawf. wafajā yanfātiḥ 1bāb wāyahjīn 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 /yanfātiḥ/ '(it) opens' and /yāhjīn/ '(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. Those are not dealt with here since their tensemors do not form sequences in the sense used here. A sequence of tensemors is defined here as a succession of more than one tenseme in a sentence which contains one or more constructions that are syntactically dependent on another construction. Only the sequence of tensemors in complex sentences thus seems to satisfy this criterion of 'sequence' of tensemors. Other successions of tensemors are not to be considered each as a whole unit but as consisting of independent tensemors 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 tenseme, 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 tensemors of either tense in Arabic are similarly marked for the same point of reference. It is observable that, in general, the tensemors of a given complex sentence in Arabic are all formally and temporally treated as belonging to
the same tense. In other words, in a sequence of
tenses, all the member tenses 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 tenses
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 tenses, 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 tenses 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 tenses, a number
of common sequences of tenses 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: $E = \text{event}$, $D_1 = \text{past point of reference}$, $P_1 = \text{present point of reference}$. The relative temporal location of $E$ to either $D_1$ or $P_1$ is marked by its position in the following formulas either before, at, or after them. In other words, a tense 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, $D_1$. Conversely, the tense like /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 /qādā ḥayātahu kānā kāna qaḍāhā ṭajdāduhu/

'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 ($E_1$) refers to Event One, i.e. the first verb in the sentence above which is /qādā/. This is a basic-past tensemo 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 \( D_1 \) and for earlierness with respect to this point of reference by \( D_2 \). Thus \( E_2 \) precedes \( D_1 \) in the second formula above. It is important to notice that both tensemos 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

\[ /\text{qadā hayātahu kamā qadāhā ?ajdādhu min qablū/} \]

'(he) spent his life as his ancestors spent theirs before'

still indicates the earlierness of the second event in relation to the first without the presence of the earlier-aspect marker \( D_2 \). This would, it might be thought, undermine the temporal relativity of tensemes 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 \( /\text{min qablū/} \) 'before' in the above sentence that indicates the relation of earlierness normally indicated by \( D_2 \) in verbs. The role of the temporal adverbial becomes clearer in the above sentence if it is deleted. Without it the temporal location of both tensemes would correspond to a point in
the past and no earlierness would be indicated. This can be seen in sentences like the following:

1. /najaha salim karā kānant laylā qad najahat/
   'Salīm succeeded as Layla had.'

2. /najaha salim kamā najahat laylā min qablu/
   'Salīm succeeded as Layla did before.'

3. /najaha salim kamā najahat laylā/
   'Salīm succeeded as Layla did.'

In the first sentence above, the earlierness of E2 in relation to E1 is formally indicated by the aspectual marker {D2} in the verb /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:

\[ D_1, E_1 \]
\[ E_2 - D_1 \]

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 liʔannahu kāna nāʔir/
   'I left because he was sleeping.'

In this sentence in particular, however, the word 'ancestors' may still suggest earlierness even without {D2} or the temporal adverbial /min qablu/.
2. /ṣallāḥtu 1kārira li?annahā kānāt maksūra/
'I repaired the car because it was broken.'

Both tenses 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 \( (P_2\emptyset) \) 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 \( (P_2+) \) which is formally realized by either of the two mutually exclusive lexemes /sa-/ or /sawfa/ plus a pronominal prefix. In the following sentence,

'He (is) read(ing) a lot as he will sit for the examination',

The second tense is to take place at a time later than the point of reference. This is formally indicated by \( (P_2+) \) in /sa-/ plus the immediately following pronominal prefix. The action of the initial tense, on the other hand, is shown to take place at the same time as

\[37\text{ Notice, however, the special case of later-past discussed in the next sub-section on 'Broken Sequence'.} \]
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. \[ P_1, E_1 \]
   \[ P_1 \text{ } - \text{ } E_2 \]

2. Broken Sequenca

   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:

   /ya9Ishu lyawma kamā 9āsha 7najdāduhu/
(He) lives today as his ancestors lived.)
in which the second tensema is a basic-past tensema
formally oriented to a past point of reference whereas
the first tensema is a basic-present tensema 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) /qala bi?annahu sava?ti/
   (He) said that he **will come**
   'He said that he would come.'

(2) /nâma li?annahu savastavqiz mubakkiran fi
   lyawmi ttâli/
   (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) /?akhirbahnu bi?anni sa?usâfir/
   (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 tensesma are used to indicate actions
intended for a later-past time instead of the normally
expected later-past tensesma /kâna sava?ti/, /kâna
sayastayqiz/, and /kuntu sa?usâfir/, 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 sayusāfīr ba9da ?an waṣalnā hilāms/

'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 bi?annahu kāna savəti laulā lmaṭar/

(He) said that he would come but for the rain

'He said that he would have come but for the rain.'

(2) /nāna li?annahu kāna sayastayqīz nubakkiran fi lyawmi ttīli walaqinnahu ta?akhirāri 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) */?akhbartu hu bi?anni kuntu sa?usafir wala?kinni ghayyartu ra?yī/

( 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 tensemes which represent such actions are to be back-shifted to pre-later-past tensemes, as can be seen in the following sentence:

/*kāna sayakūnu sāfār ba?da ?an wasalnā bil?ams lawlā marādihi 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 tensemes in their sentences.

Finally, there are certain syntactical restrictions that may impose certain modifications on the general rules of the sequence of tensemes 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 walākinnahu 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 earlierness /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 tensemes 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. /?irji9/ 'bring back!' 
2. /?uktub/ 'write!' 
3. /tarjim/ 'translate!' 

Temporally, the imperative verb is considered here to have the same temporal scope of the basic-present tenseeme, 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 {P1}. Their only difference from the ordinary basic-present is that the empty aspectual markers of their surface structures are omitted. 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 laterness, viz. {P2∅} and {P2+}, 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.
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 tenseme 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 tensemes, 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 tensemes 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. /?idhhab ?uktub darsak/
   'Go, write your lesson!'
2. /ta9al ?iftah lbab/
   '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 tensemes. 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 tensemes 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. /?idhhab waktub darsak/
   'Go and write your lesson.'
2. /ta9a?la waftah lbab/
   '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 idiosyncracy 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. /lä tuḏayyi9 waqtak/
   'Don't waste your time!'

2. /lä tadhhab/
   'Don't go!'

The prohibition may be strengthened by adding the suffix /-an/ or /-anna/ to the jussive verbal base, e.g.:

1. /lä tuḏayyi9anna waqtak/
   'Do **not** waste your time!'

2. /lä tadhhaban/
   'Do **not** go!'

As non-past verbs, tenses 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 tenseme instead of the imperative.\textsuperscript{39} The basic-present tenseme again appears in the jussive mood in such cases. Examples are the following:

1. /yatāfaddal ḥarra?is bitawzī9i jjawā?iz/
   'Would the President please hand the prizes out.'
2. /yaqifu jjamī9 daqīqa waḥida/
   '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', /?akhadh/ 'took', and /bada?/ 'began'. In such cases, these verbs invariably have the meaning of 'began', as in the following sentences:

1. /bada? yatakallam bihudū?/
   '(He) began (to) talk quietly.'
2. /ja9al yadhak/
   '(He) began (to) laugh.'
3. /?akhadh yasrakh/
   '(He) began (to) scream.'

\textsuperscript{39} Compare the use of past tensemes 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 */akhadh yadhak/ 'began (to) laugh' is considered as consisting of a single compound tenseme. This unity of the modal */akhadh/ with the following verbid */yadhak/, for example, can be testified by the above-mentioned test of the conjunction */wa/ 'and'. The close syntactic link between the components of all compound and complex tensemes makes it incorrect to interpose */wa/ anywhere between them. The verbal cluster */akhadh wayadhak/ is consequently ungrammatical. All the three above sentences, therefore, possess compound tensemes that are temporally analyzable as:

Pastness \{D_1\} + Non-earlierness \{P_2\}

---

40 See page 566.
(i.e. indicating duration and repetition in the past)

Syntactically similar to the above-mentioned three compound tensemēs are verbal clusters like
/dakhal yaḏhak/ '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 ḍāḥik/
   '(He) came in laughing.'

2. /kharaj mubtasim/
   '(He) went out smiling.'

Temporally, such compound tensemēs as the above are analyzed here as follows:

1. /dakhal yaḏhak/
   = Past time \{D_1\} + Non-earlier Duration \{P_2\}

2. /kharaj mubtasim/
   = Past time \{D_1\} + Simultaneity \{P_2\}'

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 (tāmma) /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 (nāqiṣa) by Arab grammarians in such sentences because it and its subject would be incomplete without a predicate.
2. /huwa käna qad säfar min qablu/
   'He had already travelled.'
3. /käna räkiḍ 9indamä qäbaltuḫu/
   '(He) was running when (I) met him.'

In all uses of /käna/ that have been mentioned so far in this section, it is used as a verbex. /käna/, however, may also be used as a verbid in Arabic when it occurs non-initially in verbal clusters. The independent full verb /käna/ 'existed' occurs as a verbid in sentences like the following one:

/käna sayakūn fi lḥayti/
'(He) was to be in the house.'

The auxiliary /käna/ may also appear as an aspectual verbid in sentences like the following:

/käna sayakūn säfar lḥarbe. '
'(He) would have travelled but for the war.'

There exist in Arabic a number of verbs that behave similarly to the 'Incomplete /käna/', mentioned above, in that these verbs always take a predicate. Because of this similarity in the syntactic behaviour with /käna/, these verbs are traditionally called by Arab grammarians as the 'Sisters of /käna/'. The following are some common verbs in this category; they all mean 'became': /sära/. /?asbaḥa/;
/?aḍḥa/, /?amsa/ and /bäta/. 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. /ʔašbaḥa jjawwu bārid/
   'The weather has become cold.'
4. /gāra lmā? 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 lkādhib/
   '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 /habbadḥā/ 'be good' and /lā ḥabbadḥā/
'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. 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

\[2\text{For a discussion of 'deep' versus 'surface' structures, see (a) Chomsky, Aspects of the Theory of Syntax, p.16, and (b) Lyons, Theoretical Linguistics, p. 247.}\]
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:

\[ \text{/huwa yusāfir ghadan/} \]

'He travels tomorrow'

Any native speaker of Arabic will understand the above sentence as temporally equivalent to:

\[ \text{/huwa sayusāfir/} \]

'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\}$$. It is however important to pinpoint what exactly in the first sentence above enables it to refer to 'laterness' despite the absence of the later-aspect marker $\{P_2+\}$. Obviously, 'laterness' 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 'laterness' 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 tenseme 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:

\[
\text{VP} \rightarrow \text{Aux} \left\{ \begin{array}{l}
\text{root} \\
\text{root + NP}
\end{array} \right\} + (\text{Advt})
\]

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:

\[
\text{Aux} \rightarrow \text{TTA} + (\text{ATA})_n
\]

\[n \geq 2\]

The above rule shows that one occurrence of TTA is compulsory in any Aux whereas the occurrence of ATA is optional. Simple tensemes do not have any ATA in their underlying P-markers whereas compound and complex tensemes 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:

\[
\text{TTA} \rightarrow \left\{ \begin{array}{l}
\text{/bilmādī/ 'in the past'} \\
\text{/fi lḥādir/ 'at present'}
\end{array} \right\}
\]

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 /lāhiqan/ 'later' whereas the second ATA may be any of the following three: /lā sbāiqan/'non-earlier', /sābiqan/'earlier', or /?āniyyan/'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:

\[
\text{ATA} \rightarrow \begin{cases} 
\text{lāhiqan} / \ldots (\text{ATA}) \\
\text{lā sbāiqan} \\
\text{sābiqan} \\
\text{?āniyyan} \\
\end{cases} / (\text{lāhiqan}) + \ldots
\]

(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 qara?ā lkitāb qablāmā qābaltuḥu/
   'He had read the book before I met him.'
(b) /huwa qara?a lkitāb qablāmā qābaltuhu/

'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 /qablāmā/ 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 /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:

\[
\text{Tdel: } \text{NP + TTA + ATA + root + X + Advt} \\
\overset{\text{ATA}}{\longrightarrow} \text{NP + TTA + root + X + Advt}
\]

(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 tensemes 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:

\[
T_{car_1}: \{ \frac{TTA}{ATA} \} + \left\{ \begin{array}{l}
/\text{sābiqan/} \text{'earlier'} \\
/lā \text{ sābiqan/} \text{'non-earlier'} \\
/\text{?āniyyan/} \text{'simultaneously'}
\end{array} \right\}
\]

\[
\rightarrow \{ \frac{TTA}{ATA} \} + KWN + \left\{ \begin{array}{l}
/\text{sābiqan/} \\
/lā \text{ sābiqan/} \\
/\text{?āniyyan/}
\end{array} \right\}
\]

It is to be noticed that in the above transformation, the \( \frac{ATA}{lāhiqan/} \text{'later'} \) 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 tenseeme \( /\text{sayaf9al/} \) for later-present reference instead of \( /\text{yakūnu sayaf9al/} \) 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 idiosyncracy of later aspect in Arabic can be accounted for by introducing a second carrier transformation as follows:
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) Applications

(1) /salīm katab ddarsabil?ams/

'Salim wrote the lesson yesterday.'

\[
S \rightarrow NP + VP \\
\rightarrow NP + TTA + root + X + Advt \\
\rightarrow NP + bilmādi + root + X + Advt \\
Taf \rightarrow NP + root + bilmādi + X + Advt \\
\rightarrow salīm + KTB + D₁ + ddars + bil?ams \\
\rightarrow salīm katab ddarsa bil?ams
\]

(2) /huwa yusāfir ghadan/

'He travels tomorrow.'

\[
S \rightarrow NP + VP \\
\rightarrow NP + TTA + ATA + root + Advt \\
\rightarrow NP + fi lhādir + lāhiqan + root + Advt
\]

\[3\text{For forms of rules other than those already described in this chapter, see the next section.}\]
Tdel → NP + fi lḥādīr + root + Advt

ATA

Taf → NP + root + fi lḥādīr + Advt

→ huwa + SFR + P₁ + ghadan

→ huwa yusāfir ghadan

(3) /nahnu sanusāfir ?ila l9īrāq/

'We will travel to Iraq.'

S → NP + VP

→ NP + TTA + ATA + root + X

→ NP + fi lḥādīr + lāḥiqan + root + X

Taf → NP + fi lḥādīr + root + lāḥiqan + X

→ nahnu + SFR + P₁ + P₂ + ?ila l9īrāq

→ nahnu sanusāfir ?ila l9īrāq

(4) /huwa kāna yaktubu ddars/

'He was writ(ing) the lesson.'

S → NP + VP

→ NP + TTA + ATA + root + X

→ NP + bilmādi + lā sābiqan + root + X

Tcar → NP + bilmādi + KWN + lā sābiqan + root + X

Taf → NP + KWN + bilmādi + root + lā sābiqan + X

→ huwa + KWN + D₁ + KTB + P₂ + ddars

→ huwa kāna yaktubu ddars

(5) /huwa kāna sayakūnu kataba ddars/

'He would have written the lesson'

S → NP + VP
\[ \rightarrow NP + TTA + ATA_1 + ATA_2 + \text{root} + X \]

\[ \rightarrow NP + \text{bilmādi} + \text{lāhiqan} + \text{sābiqan} + \text{root} + X \]

\[ \text{Tcar} \rightarrow NP + \text{bilmādi} + KWN + \text{lāhiqan} + KWN + \text{sābiqan} + \text{root} + X \]

\[ \text{Taf} \rightarrow NP + KWN + \text{bilmādi} + KWN + \text{lāhiqan} + \text{root} + \text{sābiqan} + X \]

\[ \rightarrow NP + KWN + D_1 + KWN + P_{2+} + \text{KTB} + D_2 + \text{ddars} \]

\[ \rightarrow \text{huwa kāna sayakūnu kataba ddars} \]

(6) /salīm kāna jālis bilḥadīqa/

'Salīm was sitting in the garden.'

\[ S \rightarrow NP + VP \]

\[ \rightarrow NP + TTA + ATA + \text{root} + X \]

\[ \rightarrow NP + \text{bilmādi} + ?āniyyan + \text{root} + X \]

\[ \text{Tcar} \rightarrow NP + \text{bilmādi} + KWN + ?āniyyan + \text{root} + X \]

\[ \text{Taf} \rightarrow NP + KWN + \text{bilmādi} + \text{root} + ?āniyyan + X \]

\[ \rightarrow NP + KWN + D_1 + JLS + P_{20} + \text{biḥadīqa} \]

\[ \rightarrow \text{salīm kāna jālis biḥadīqa} \]

\[(G) \text{Basic Transformational Grammar of the Arabic Verbal System}^4\]

(1) \textbf{Phrase Structure Rules}

\[ \Sigma : \text{Sentence} \]

\[ F : 1. S \rightarrow NP + PP \]

---

^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 → \{NP\} \
   \{Adj\} \
   \{VP\}

3. VP → Aux \{\text{root }\} + (Advt) \
   \{\text{root + NP}\}

4. Aux → TTA + (ATA)_n \
   n ≠ 2

5. TTA → \{bilmādi\} \
   \{fi lḥādir\}

6. ATA → \{lāḥiqan\} + (ATA) \
   \{lā sābiqan\} \
   \{sābiqan\} \
   \{?āniyyan\}

7. root → KTB, SFR, JLS, TRJM, QYM, ...

8. NP → /?arrajul/'the man', /kitāb/'a book', \
   /huwa/'he', /?al?awlād/'the boys', ...

9. Adj → /jamīl/'pretty', /tawfi/'long, tall', ...

10. Advt → /sābiqan/'earlier', /?abāḥan/'in the 
    morning', /?assana lmaqīya/'last 
    year', /ghadan/'tomorrow', /?indamā 
    ya?ti/'when he comes', ...

(ii) Transformational Structure Rules

11. Tdel \[\text{ATA}\] 
    \[\text{NP + TTA + ATA + root + X + Advt}\] 
    \[\text{NP + TTA + root + Advt + X}\] 
    (when \text{ATA} and Advt have an identical 
    temporal value of relation)
12. Tmj: \( NP + TTA + (ATA) + \text{root} + X \)

\[ \rightarrow TTA + (ATA) + \text{root} + X \]

/\text{?alwalad kataba ddarsa}/
'The boy wrote the lesson.'
/\text{kataba ddarsa}/
\[ \rightarrow '(\text{He}) wrote the lesson.' \]

13. T\text{passive}:
\( NP_1 + TTA + (ATA) + \text{root} + NP_2 + X \)

\[ \rightarrow NP_2 + TTA + (ATA) + \text{root} + \text{passive} + X \]

/\text{?alwalad kataba ddarsa}/
'The boy wrote the lesson.'
\[ \rightarrow /\text{?addarsu kutib}/ \]
'The lesson (was) written.'

14. Tap: \( NP + TTA + \text{simultaneously} + \text{root} + X \)

\[ \rightarrow NP + \text{simultaneously} + \text{root} + X \]

/\text{?alwalad kataba ddars}/
'The boy wrote the lesson.'
\[ \rightarrow /\text{?alwaladu katibun ddars}/ \]
*(The boy writing the lesson)

15. T\text{pp}: \( NP_2 + TTA + \text{simultaneously} + \text{root} + \text{passive} + X \)

\[ \rightarrow NP_2 + \text{simultaneously} + \text{root} + \text{passive} + X \]

/\text{?addarsu kutib}/ + simultaneously
'The lesson was written' + simultaneously
\[ \rightarrow /\text{?addarsu maktūb}/ \]
*(The lesson written)
(iii) Morphophonemic Structure Rules

20. bilmādi → \{D_1\}
21. fi lhādir → \{P_1\}
22. sābiqān → \{D_2\}
23. lā sābiqān → \{P_2\}
24. lāhiqān → \{P_2^+\}
25. āniyyān → \{P_2^\}

16. Tcar₁: \{TTA\} + \{/sābiqān/ 'earlier'

ATA \{/lā sābiqān/'non-earlier'

/āniyyān/'simultaneously'

→ \{TTA\} + KWN + \{/lā sābiqān/

ATA \{/sābiqān/

/āniyyān/

17. Tcar₂: bilmādi + lāhiqān

→ bilmādi + KWN + lāhiqān

18. Taf: af + \{root \} → \{root \} + af

(carrier) (carrier)

(where af is any TTA or ATA)

19. Tinvert: NP + \{root \} + TTA + (ATA) + X

KWN

→ \{root \} + TTA + (ATA) + NP + X

/salīm ji?a/ 'Salīm came'

→ /ji?a salīm/ *(came Salīm)
26. \( \{P_1\} + \text{root} \rightarrow \text{empty} \{P_2\} + \{P_1\} + \text{root} \) (initially in VP)

27. \( \{D_1\} + \text{root} \rightarrow \text{empty} \{D_2\} + \{D_1\} + \text{root} \) (initially in VP)

28. \( \{P_2\} + \text{root} \rightarrow \{P_2\} + \text{empty} \{P_2\} + \text{root} \) (non-initially in VP)

29. \( \{D_2\} + \text{root} \rightarrow \{D_2\} + \text{empty} \{D_1\} + \text{root} \) (non-initially in VP)

30. \( \{P_2\} + \text{root} \rightarrow \text{active-participle form} \)

31. \( \{P_2\} + \text{root + passive} \rightarrow \text{passive-participle form} \)

32. \( \{D_1\} \rightarrow \left\{ \begin{array}{l} /a - a/ \\ /a - i/ \\ /a - u/ \end{array} \right\} \) Morphologically-conditioned variants

33. \( \{P_1\} \rightarrow \left\{ \begin{array}{l} /\emptyset - u/ \\ /\emptyset - i/ \\ /\emptyset - a/ \end{array} \right\} \) Morphologically-conditioned variants

34. \( \{P_2\} \rightarrow \text{prefix (pre-stem position)} \)

35. \( \{D_2\} \rightarrow \text{zero prefix (i.e. absence of prefix)} \)

36. \( \{P_2\} \rightarrow \left\{ /sa-/ \right\} + \text{prefix} \left\{ /\text{sawfa}/ \right\} \)

37. \( \{P_2\} \rightarrow \text{(/mu-)} + /\bar{a} - i/ \)

38. \( \{P_2\} + \text{passive} \rightarrow /ma-/ + /\bar{u}/ \)
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 tensemes in Arabic can be analyzed in terms of a basic distinction between 'systematic' versus 'non-systematic' uses of those tensemes.² A given tenseme 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 tenseme. Conversely, a function is said to be non-systematic if it cannot be deduced only from the formal time markers of the tenseme by which it is indicated. To illustrate this distinction further, the following two sentences are cited here:

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 tenseme /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 tenseme indicates a general habitual action. In the second sentence above, however, the same tenseme 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 tensemes 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.

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3See also pp. 221 - 223.
Two important facts emerge from the above.

First, that non-systematic functions of tensemes are usually achieved by the co-occurrence of those tensemes 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 tensemes 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.\(^4\)

A temporal adverbial like /kulla yawm/ in the above sentence can be omitted without affecting the temporal value of the co-occurrence 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 tensemes in Arabic should incorporate the description of the association of those tensemes 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 tensemes in Brazilian Portuguese, and Crystal has suggested it for English. The use of temporal adverbials as a means of classification has already yielded a detailed and interesting inventory of functions for English tensemes in Chapter Six of Part

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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 tensemes.

(B) Description of the Analytical Approach

Semantic considerations have been used in this analysis of functions as a classificatory criterion for functions of tensemes 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 One 8

(i) Objectives

1. To analyze the functions of Arabic

8 This 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.
tensemes 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 tensemes without relating these tensemes to certain co-occurrences with specific temporal adverbials.

3. To sort out the systematic versus the non-systematic functions of tensemes.

(ii) Procedure

1. To realize the first objective above, a number of educated Arabs were presented with a large variety of Arabic tensemes 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 tenseme with different categories of temporal adverbials was to form the basis of the identification of the functions of that tenseme.

2. The conclusion that some temporal adverbials are 'non-omissible' in the indication of certain functions of a given tenseme is an evidence of the inadequacy of grammatical treatments that analyze the temporality of
tensemes without any reference to temporal adverbials.

3. Tensemes 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 tenseme, 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 tensemes 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
(1) Objectives
1. To acquire a broader picture of the temporal
distribution of Arabic tensemes by associating these tensemes 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 tensemes by observing the different tensemes 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 tensemes.

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 Two**

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

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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 ththalitha/'at three o'clock'; /fi shshahri lmādi/'last month'; etc...

2. An **UNSPECIFIC** point/period of time: e.g. /bilmustaqbal/'in the future'; /9indamā wasal/ 'when he arrived'; /ḥālan/'soon'; etc...

3. An **UNSPECIFIED** point/period of time: e.g. /masā?an/'in the evening'; /sābiqan/'earlier'; /fi ssā9a 19āshira/'at ten o'clock'; etc...

4. A **SPECIFIED** point/period of time: e.g. /ghadan/'tomorrow'; /9indamā ya?ti/'when he comes'; /bil?ams/'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-occurring adverbials with the tensemes in question. Then adverbials are sub-divided into various temporal

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**Notice that the term SPECIFIED as such is not used in the tables of Test One. Its 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)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Simultaneous Present</td>
<td>1, 5, 7, 11, 12, 16, 17, 18, 21, 23, 28, 31, 38, 40, 41, 42, 46, 50, 51, 64, 65, 67</td>
<td>An Action/State taking place at the Moment of Speech</td>
</tr>
<tr>
<td>(B) An Unspecified Point</td>
<td>3, 10, 13, 15, 25, 26, 29, 30, 32, 34, 39, 43, 48, 49, 52, 54</td>
<td>A Personal Habit or a 'Timeless' Fact</td>
</tr>
<tr>
<td>(C) Before an Unspecified Point</td>
<td>4</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(D) An Unspecified Frequency</td>
<td>27, 53, 59, 62, 63, 68</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(E) A Specific Future Point</td>
<td>36, 44</td>
<td>A Specific Future Action/State</td>
</tr>
<tr>
<td>(F) Past Duration</td>
<td>24, 70</td>
<td>A Past Activity Continuing up to Present</td>
</tr>
</tbody>
</table>

*Extending up to the Moment of Speech*
### TABLE 51

#### 2. /katab/ (Basic Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point</td>
<td>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</td>
<td>An Action/State that took place at a Specific Point in the Past</td>
</tr>
<tr>
<td>(B) A Specific Past Point</td>
<td>3,9,11,17,21,22, 28,41,53,56,59, 60,64,66,67,68, 69,70</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(C) A Specific Point at Day-time</td>
<td>4,31,33,37</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(D) A Past Duration</td>
<td>5</td>
<td>A Past Action/State that continues up to the Moment of Speech</td>
</tr>
<tr>
<td></td>
<td>Extending up toMoment of Speech</td>
<td></td>
</tr>
<tr>
<td>(E) An Unspecific Past</td>
<td>16,25,38,45</td>
<td>An Action/State taken place at an Unspecific Past Point</td>
</tr>
<tr>
<td>(F) Simultaneous Present</td>
<td>29,30,32</td>
<td>An Action/State taken place at Recent Past</td>
</tr>
</tbody>
</table>

contd...
Table 51 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(G) Before an Unspecified Point</td>
<td>43, 50, 55, 65</td>
<td>An Action/State taken place at Pre-Past</td>
</tr>
</tbody>
</table>

**TABLE 52**

3. /takūnu dhahabat/ (Earlier Non-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point</td>
<td>1, 2, 11, 27, 37, 40, 43, 47, 48, 53, 63</td>
<td>a. An Action that usually takes place before an Unspecified Point</td>
</tr>
<tr>
<td>(B) An Unspecific Past Point</td>
<td>5, 9, 10, 12, 18, 29, 49</td>
<td>b. A Tentative Past</td>
</tr>
<tr>
<td>(C) Simultaneous Present</td>
<td>7, 15, 17, 44, 55, 61, 62, 64, 68</td>
<td>c. A Tentative Pre-Future</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As in (Ab) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A Tentative Action/State at Recent Past</td>
</tr>
</tbody>
</table>

contd...
Table 52 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) After an Unspecified Point</td>
<td>36, 38, 39, 50, 51, 54, 59</td>
<td>As in (Aa), (Ab) or (Ac) above</td>
</tr>
<tr>
<td>(E) An Unspecific Point at Non-Past</td>
<td>8, 24, 56, 69</td>
<td>As in (Aa) or (Ac) above</td>
</tr>
</tbody>
</table>
| (F) Before an Unspecified Point | 13, 20, 23, 46, 65 | a. As in (Aa) above  
b. As in (Ac) above  
c. Tentative Past |
| (G) A Specific Past Point | 21, 58, 60, 66 | As in (Ab) above |
| (H) A Specific Point at Daytime | 32 | As in (Ac) above |
| (I) Before a Specific Past Point | 33 | As in (Fe) above |
| (J) A Specific Future Point | 67 | As in (Ac) above |

TABLE 53

4. /kāna (qad) katab/ (Earlier Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Before an Unspecified Point</td>
<td>1, 3, 4, 17, 27, 29, 30, 32, 36, 43, 44, 54, 55, 57, 64, 69</td>
<td>An Action/State that took place before a Past Point of Time</td>
</tr>
</tbody>
</table>

contd...
Table 53 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) Simultaneous Present</td>
<td>2,15,28,38</td>
<td>A Recent-Past Action</td>
</tr>
<tr>
<td>(C) At an Unspecified Past</td>
<td>a. 5,7,10,12,18, 45,50,53,59, 62 b. 63 (with law 'if')</td>
<td>a. As in (A) above b. A Hypothetical Action in the Past</td>
</tr>
<tr>
<td>(D) At an Unspecified Point</td>
<td>8,9,24,25,37,41, 46,47,49,52,65, 68</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(E) At a Specific Past</td>
<td>a. 11,13,21,33, 39,48,56,58, 66,70 b. 67 (with lawlā 'but for')</td>
<td>a. As in (A) above b. As in (Cb) above</td>
</tr>
</tbody>
</table>

TABLE 54

5. /satusāfir/ (Later Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) After an Unspecified Point</td>
<td>1,12,40,45,46,48, 51,70</td>
<td>A Post-Future Action</td>
</tr>
</tbody>
</table>

contd...
Table 54 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) At an Unspecified Point</td>
<td>2, 15, 16, 18, 20, 21, 22, 23, 25, 26, 34, 42, 43, 47, 49, 50, 52, 53, 54, 55, 58, 63</td>
<td>An Action that will take place at a Point in the Future</td>
</tr>
<tr>
<td>(C) At a Specific Future Point</td>
<td>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</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(D) Before an Unspecified Point</td>
<td>4, 38</td>
<td>A Pre-Future Action</td>
</tr>
<tr>
<td>(E) Simultaneous Present</td>
<td>17</td>
<td>An Action that will take place at Near Future</td>
</tr>
</tbody>
</table>

TABLE 55

6. /kānat satusāfir/ (Later Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) At an Unspecified Point</td>
<td>a. 1, 9, 16, 20, 43, 48, 54</td>
<td>a. A Tentative Past</td>
</tr>
<tr>
<td></td>
<td>b. 32, 57, 62 (with lawlā)</td>
<td>b. 1. A Hypothetical Past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. A Hypothetical Future</td>
</tr>
</tbody>
</table>

... contd...
Table 55 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) After an Unspecified Point</td>
<td>a. 2, 15, 17, 18, 38, 39, 40, 44, 70</td>
<td>a. An Intended Action at Post-Past</td>
</tr>
<tr>
<td></td>
<td>b. 27, 63, 68 (with lawlā)</td>
<td>b. 1. A Hypothetical Post-Past Action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. A Hypothetical Post-Future Action</td>
</tr>
<tr>
<td>(C) Before an Unspecified Point</td>
<td>4, 12</td>
<td>a. A Hypothetical Pre-Past Action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. A Hypothetical Pre-Future Action</td>
</tr>
<tr>
<td>(D) Simultaneous Present</td>
<td>10, 64</td>
<td>A Hypothetical Simultaneous-Present Action</td>
</tr>
<tr>
<td>(E) A Specific Future Point</td>
<td>11, 13, 21, 24, 29, 37, 55, 69</td>
<td>As in (Ab2) above</td>
</tr>
<tr>
<td>(F) A Specific Past Point</td>
<td>a. 22, 60, 65, 66 (with law or lawlā)</td>
<td>a. As in (Ab1) above</td>
</tr>
<tr>
<td></td>
<td>b. 45, 50, 58, 67</td>
<td>b. 1. As in (Ab1) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. As in (Aa) above</td>
</tr>
</tbody>
</table>

contd...
Table 55 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(G) At Daytime Period</td>
<td>33</td>
<td>A Hypothetical Action at Contemporaneous Present</td>
</tr>
</tbody>
</table>

Table 56

7. /yakūnu nā?im/ (Simultaneous Non-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) At an Unspecified Point</td>
<td>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</td>
<td>a. An Action/State usually simultaneous with an Unspecified Point b. An Action/State that is expected to be simultaneous with a Future Point</td>
</tr>
<tr>
<td>(B) Frequency at Unspecified Points</td>
<td>4, 55, 62, 64, 66, 69</td>
<td>As in (Aa) above</td>
</tr>
</tbody>
</table>

contd...
Table 56 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(C) An Unspecific Point at Non-Past</td>
<td>5</td>
<td>a. As in (Aa) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. As in (Ab) above</td>
</tr>
<tr>
<td>(D) Simultaneous Present</td>
<td>7,51,61,67</td>
<td>A Tentative Simultaneous Present Action/State</td>
</tr>
<tr>
<td>(E) Before an Unspecified Point</td>
<td>15,18,33,37,54</td>
<td>a. An Action/State Simultaneous with a Point that Precedes another at an Unspecified Time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. An Action/State Simultaneous with a Point that Precedes another at Future</td>
</tr>
<tr>
<td>(F) After an Unspecified Point</td>
<td>27,29,65</td>
<td>a. An Action/State Simultaneous with a Point that Follows another at an Unspecified Time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. An Action/State that Follows another in Future</td>
</tr>
</tbody>
</table>
TABLE 57

8. /kāna māshiyan/ (Simultaneous Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) A Specific Past</td>
<td>1,16,20,21,30,33,34,36,37,40,43,45,46,49,54,58,59,62,63,64,66,70</td>
<td>An Action/State Simultaneous with a Point/Period in the Past</td>
</tr>
<tr>
<td>(B) After an Unspecified Point</td>
<td>2</td>
<td>An Action/State Simultaneous with a Point at Post-Past</td>
</tr>
<tr>
<td>(C) An Unspecified Point</td>
<td>5,6,7,9,10,11,12,13,15,17,23,26,28,38,44,48,51,52,60,65</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(D) An Unspecific Past Point</td>
<td>42,61</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(E) Before an Unspecified Point</td>
<td>47,50</td>
<td>An Action/State Simultaneous with a Point/Period at Pre-Past</td>
</tr>
</tbody>
</table>
TABLE 58

9. /takūnu mahjūra/ (Simultaneous Non-Past (Passive))

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
</table>
| (A) An Unspecified Point       | 1,12,17,23,26, 30,36,37,38,45, 48,49,50,56,57, 58,59,62,65,66, 67 | a. An Action/State usually Simultaneous with an Unspecified Point  
b. An Action/State Simultaneous with a Future Point |
| (B) Before an Unspecified Point | 2,29,41                     | a. An Action/State usually Simultaneous with a Point that Precedes another Unspecified Point  
b. An Action/State Simultaneous with a Point that Precedes another Future Point |
| (C) A Specific Future Point     | 5,21                        | As in (Ab) above                                            |
| (D) An Unspecific Point at Non-Non-Past | 8,24,47,52,61             | a. As in (Aa) above  
b. As in (Ab) above |

contd...
Table 58 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(E)</strong> After an Unspecified Point</td>
<td>13, 18, 27, 43, 53, 54, 68</td>
<td>a. An Action/State usually simultaneous with a Point that follows another Unspecified Point</td>
</tr>
<tr>
<td><strong>(F)</strong> Simultaneous Present</td>
<td>15, 40, 44, 55, 64, 69</td>
<td>A Tentative Simultaneous Present Action/State</td>
</tr>
<tr>
<td><strong>(G)</strong> An Unspecific Future</td>
<td>16</td>
<td>As in (Ab) above</td>
</tr>
<tr>
<td><strong>(H)</strong> A Specific Future</td>
<td>20, 63</td>
<td>As in (Ab) above</td>
</tr>
</tbody>
</table>

TABLE 59

10. /kānat maksūra/ (Simultaneous Past(Passive))

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A)</strong> An Unspecific Past Point</td>
<td>1, 2, 10, 11, 13, 16, 17, 23, 24, 27, 29, 30, 36, 41, 43, 44, 46, 47, 54, 58, 59, 61, 48</td>
<td>An Action/State Simultaneous with a Point at Past</td>
</tr>
</tbody>
</table>
Table 59 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) Simultaneous</td>
<td>4,15</td>
<td>An Action/State Simultaneous with a Point at Recent Past</td>
</tr>
<tr>
<td>Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C) An Unspecified</td>
<td>5,7,18,26,28,37,38,49,52,65,68</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(D) Before an Un-</td>
<td>6,9,33,39,55,62,64</td>
<td>An Action/State Simultaneous with a Point at Pre-Past</td>
</tr>
<tr>
<td>specified Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(E) A Specific Past</td>
<td>12,14,21,45,60,67,69,70</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(F) After an Un-</td>
<td>32,66</td>
<td>An Action/State Simultaneous with a Point at Post-Past</td>
</tr>
<tr>
<td>specified Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(G) Before a Past</td>
<td>56,57,63</td>
<td>As in (D) above</td>
</tr>
<tr>
<td>Point</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 60

11. /yakûnu yaktub/ (Continuous Non-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Before an Un-</td>
<td>1,11</td>
<td>a. An Action/State usually going cr. before an Un-specified Point</td>
</tr>
<tr>
<td>specified Point</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

contd...
## Table 60 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(B) An Unspecific Point at Non-Past</strong></td>
<td>8, 20, 60</td>
<td>b. An Action/State that will be going on Before a Future Point</td>
</tr>
<tr>
<td>(C) Simultaneous Present</td>
<td>9, 12, 17, 21, 28 (Negative), 43, 48, 56, 57, 59, 61, 65, 69,</td>
<td>a. An Action/State repeatedly going on at an Unspecified Point</td>
</tr>
<tr>
<td>(D) An Unspecified Point</td>
<td>10, 15, 40, 53, 54, 63</td>
<td>b. An Action/State going on at a Future Point</td>
</tr>
<tr>
<td>(E) After an Unspecified Point</td>
<td>18, 34, 47, 49</td>
<td>An Action/State Tentatively going on at Simultaneous Present</td>
</tr>
</tbody>
</table>

*contd.*
### Table 60 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(F)*A Specific Future Point</td>
<td>33</td>
<td>As in <em>(Bb)</em> above</td>
</tr>
<tr>
<td>*(G)*Frequency at an Unspecified Time</td>
<td>45, 62, 64</td>
<td>As in <em>(Bb)</em> above</td>
</tr>
</tbody>
</table>

### Table 61

12. /kāna yaktub/ (Continuous Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(A)*Simultaneous Present</td>
<td>1, 37</td>
<td>An Action/State that was going on at Recent Past</td>
</tr>
<tr>
<td>*(B)*Before an Unspecified Point</td>
<td>2, 20, 31, 50, 60</td>
<td>An Action/State that was going on at Pre-Past</td>
</tr>
<tr>
<td>*(C)*An Unspecific Past</td>
<td>23, 25, 42, 45, 59, 63, 64, 68, 69</td>
<td>An Action/State that was going on at a Past Point</td>
</tr>
<tr>
<td>*(D)*An Unspecified Point</td>
<td>5, 6, 8, 10, 12, 15, 16, 18, 19, 24, 26, 28, 36, 38, 44, 49, 51, 53, 54, 65</td>
<td>As in <em>(C)</em> above</td>
</tr>
</tbody>
</table>

contd...
Table 61 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E)A Specific Past</td>
<td>7,11,13,17,30,32,33,40,41,43,47,56,57,58,61,62,66,67</td>
<td>As in (C) above</td>
</tr>
</tbody>
</table>

TABLE 62

13. /sayakunu yagra?/ (Continuous Later-Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)Before an Unspecified Point</td>
<td>1,12</td>
<td>An Action/State that will be going on at Present Future</td>
</tr>
<tr>
<td>(B)Simultaneous Present</td>
<td>2,25,28,44,57</td>
<td>A State/Action Tentatively going on at Simultaneous Present</td>
</tr>
<tr>
<td>(C)An Unspecified Point of Time</td>
<td>3,5,15,17,20,23,32,35,38,39,43,45,48,51,54,60,63,64,68</td>
<td>An Action/State that will be going on at a Future Point</td>
</tr>
</tbody>
</table>

contd...
Table 62 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) After an Unspecified Point</td>
<td>9, 29, 34, 37, 49, 51, 62</td>
<td>An Action/State that will be going on at Post-Future</td>
</tr>
<tr>
<td>(E) A Specific Future</td>
<td>10, 11, 16, 21, 33, 40, 55, 58, 59, 66, 67</td>
<td>As in (C) above</td>
</tr>
<tr>
<td>(F) At Daytime Period</td>
<td>27, 61</td>
<td>An Action/State Tentatively going on at Contemporary Present</td>
</tr>
<tr>
<td>(G) An Unspecified Frequency</td>
<td>53</td>
<td>An Action/State that will be Frequently Repeated in the Future</td>
</tr>
<tr>
<td>(H) A Future Duration</td>
<td>56, 69</td>
<td>An Action/State going on at a Future Period of Time</td>
</tr>
</tbody>
</table>

TABLE 63

14. /käna sayakünu yak tüb/ (Continuous Later-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point</td>
<td>2, 17</td>
<td>an Action/State that was to be going on at Post-Past contd...</td>
</tr>
<tr>
<td>Adv. Category</td>
<td>Representative Sentence(s)</td>
<td>Corresponding Function</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>(B) An Unspecific Future</td>
<td>b. 10, 55, 60, 61, 68 (with law, lawlā, or law lam)</td>
<td>b. An Action/State Hypothetically going on at Past</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>An Action/State Hypothetically going on in the Future</td>
</tr>
<tr>
<td>(C) Before an Unspecified Point</td>
<td>12, 37, 48, 64</td>
<td>a. Hypothetically going on at Pre-Past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Hypothetically going on at Pre-Future</td>
</tr>
<tr>
<td>(D) A Specific Past</td>
<td>a. 15, 70</td>
<td>a. As in (Aa) above</td>
</tr>
<tr>
<td></td>
<td>b. 62, 66 (with lawlā)</td>
<td>b. As in (Ab) above</td>
</tr>
<tr>
<td>(E) After an Unspecified Point</td>
<td>38, 65, 67</td>
<td>a. As in (Aa) above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Hypothetically going on at Post-Past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Hypothetically going on at Post-Future</td>
</tr>
<tr>
<td></td>
<td>contd...</td>
<td>contd...</td>
</tr>
</tbody>
</table>
### Table 63 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(P) Simultaneous Present</td>
<td>43, 58, 59, 69</td>
<td>An Action/State Hypothetically going on at Simultaneous Present</td>
</tr>
<tr>
<td>(G) After an Un-specific Past Point</td>
<td>63</td>
<td>As in (Aa) above</td>
</tr>
</tbody>
</table>

### Table 64

15. /sayakūnu sāfar/ (Pre-Later Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point of Time</td>
<td>1, 2, 13, 21, 23, 24, 25, 30, 32, 36, 39, 46, 53, 61, 63</td>
<td>An Action/State that will Precede a Future Point of Time</td>
</tr>
<tr>
<td>(B) Before an Un-specified Point</td>
<td>3, 3, 38, 55, 65, 67</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(C) Daytime Period</td>
<td>5, 28, 64</td>
<td>An Action/State that will Precede a Point at Near Future</td>
</tr>
</tbody>
</table>

contd...
### Table 64 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) After an Unspecified Point of Time</td>
<td>8, 18, 43, 49</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(E) Simultaneous Present</td>
<td>12, 15, 27, 44, 58, 68</td>
<td>A Tentative Action/State at Recent Past</td>
</tr>
<tr>
<td>(F) An Unspecific Future</td>
<td>20</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(G) A Specific Future</td>
<td>40, 56, 59</td>
<td>As in (A) above</td>
</tr>
<tr>
<td>(H) An Unspecific Non-Past</td>
<td>45, 57, 70</td>
<td>As in (A) above</td>
</tr>
</tbody>
</table>

### Table 65

16. /kāna sayakūnu sāfar/ (Pre-Later Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point</td>
<td>8, 9, 12, 37, 53, 57</td>
<td>a. An Action/State that was Planned to take place Before a Point at Post-Past (Past Point of Reference)</td>
</tr>
</tbody>
</table>

contd...
Table 65 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) Before an Unspecified Point</td>
<td>1, 68 (with lawlā)</td>
<td>b. An Action/State that was to take place Before a Point at Post-Past, but did not (i.e. Hypotheticality) As in (Ab) above</td>
</tr>
<tr>
<td>(C) A Specific Future</td>
<td>10</td>
<td>Hypothetical Pre-Future</td>
</tr>
<tr>
<td>(D) A Specific Past</td>
<td>a. 11, 48, 70 b. 22, 58, 60, 62, 66 (with law or lawlā)</td>
<td>a. As in (Aa) or (Ab) above b. As in (Ab) above</td>
</tr>
<tr>
<td>(E) Simultaneous Present</td>
<td>15, 55, 61, 65</td>
<td>A Hypothetical Action that took place Before a Point at Simultaneous Present (i.e. at Recent Past) As in (E) above</td>
</tr>
<tr>
<td>(F) Daytime Period</td>
<td>33 (with lawlā)</td>
<td>As in (E) above</td>
</tr>
</tbody>
</table>

contd...
Table 65 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(G) An Unspecific Past</td>
<td>38</td>
<td>As in (Aa) or (Ab) above</td>
</tr>
<tr>
<td>(H) After an Unspecified Point</td>
<td>63, 67 (with lawlā)</td>
<td>As in (Ab) above</td>
</tr>
</tbody>
</table>

Table 66

17. /satakūnu nā?ima/ (Simultaneous Later-Present)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Simultaneous Present</td>
<td>1, 6, 15, 28, 37, 39, 57</td>
<td>An Action/State Tentatively Simultaneous with the Moment of Speech</td>
</tr>
<tr>
<td>(B) An Unspecified Point of Time</td>
<td>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</td>
<td>An Action/State Simultaneous with a Future Point</td>
</tr>
<tr>
<td>(C) A Specific Non-Past</td>
<td>3, 61, 69</td>
<td>As in (B) above</td>
</tr>
</tbody>
</table>

contd...
Table 66 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) Daytime Period</td>
<td>5</td>
<td>An Action/State Simultaneous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Near Future</td>
</tr>
<tr>
<td>(E) A Specific Future</td>
<td>8, 20, 33, 62</td>
<td>As in (B) above</td>
</tr>
<tr>
<td>(F) After an Unspecified Point</td>
<td>16, 53, 63</td>
<td>An Action/State Simultaneous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with a Point at Post-Future</td>
</tr>
<tr>
<td>(G) Before an Unspecified Point</td>
<td>23</td>
<td>An Action/State Simultaneous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with a Point at Pre-Future</td>
</tr>
<tr>
<td>(H) A Duration of Time (End Specified)</td>
<td>59</td>
<td>An Action/State Simultaneous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with a Future Period of Time</td>
</tr>
</tbody>
</table>

**TABLE 67**

18. /kāna sayakūnu nā?im/ (Simultaneous Later-Past)

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecified Point of Time</td>
<td>a.1, 9, 15, 23, 37, 40, 43</td>
<td>a.1. Simultaneous with Post-Past (i.e. Past viewed from Past)</td>
</tr>
</tbody>
</table>

contd...
Table 67 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
</table>
| (B) After an Un-specified Point of Time | b. 60, 66 (lawlā)  
a. 2, 48, 63 | 2. Hypothetically Simultaneous with Post-Past |
| (C) After an Un-specific Past Point | b. 17, 67 (lawlā)  
a. 8 | |
| (D) After a Specific Past | 12, 38 | |
| (E) Simultaneous Present | 11, 55, 58, 59, 61,  
64, 68, 69 | |
| (F) A Specific Past | 62 (with lawlā) | |
| (G) A Specific Future | 65 | |

TABLE 68

19. /sayakūnu mafhum/(Simultaneous Later-Present(Passive))

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
</table>
| (A) Simultaneous Present | 1, 2, 5, 7, 12, 23,  
26, 28, 37, 38, 44,  
49, 54 | An Action/State Simultaneous with the Moment of Speech or with Near Future |

contd...
Table 68 contd.

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) After an Unspecified Point</td>
<td>8, 9, 39, 41, 53, 55,</td>
<td>An Action/State Simultaneous with</td>
</tr>
<tr>
<td></td>
<td>57, 61, 62, 64, 67, 70</td>
<td>Post-Future</td>
</tr>
<tr>
<td>(C) A Specific Future</td>
<td>10, 19, 21, 24, 56, 58, 60</td>
<td>An Action/State Simultaneous with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a Future Point</td>
</tr>
<tr>
<td>(D) An Unspecified Point of Time</td>
<td>11, 13, 14, 15, 16, 17, 18, 27, 29, 30, 32, 40, 43, 44, 46, 47, 48, 50, 52, 68, 69</td>
<td>As in (C) above</td>
</tr>
<tr>
<td>(E) After a Specific Future</td>
<td>59, 63</td>
<td>As in (B) above</td>
</tr>
</tbody>
</table>

**TABLE 69**

20. /käna sayakūnu mahzūm/(Simultaneous Later-Past (Passive))

<table>
<thead>
<tr>
<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) An Unspecific Past Point</td>
<td>a.1, 2, 10, 17, 20, 48</td>
<td>a.1. An Action/State thought of as</td>
</tr>
<tr>
<td></td>
<td></td>
<td>simultaneous with a Post-Past(i.e. Past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>viewed from Past)</td>
</tr>
</tbody>
</table>

contd...
### Table 69 contd.

<table>
<thead>
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<th>Adv. Category</th>
<th>Representative Sentence(s)</th>
<th>Corresponding Function</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. Hypothetically Simultaneous with Post-Past</td>
</tr>
<tr>
<td>(B) Simultaneous</td>
<td>b. 56 (lawlā)</td>
<td>A Hypothetical Action/State seen as Simultaneous with the Moment of Speech</td>
</tr>
<tr>
<td>Present</td>
<td>8, 22, 63, 67, 69</td>
<td>a. As in (Aa1) or (Aa2) above</td>
</tr>
<tr>
<td>(C) An Unspecified</td>
<td>a. 15, 32, 37</td>
<td>b. As in (Aa2) above</td>
</tr>
<tr>
<td>Point of Time</td>
<td>b. 33, 55, 61, 62</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(with lawlā)</td>
<td></td>
</tr>
<tr>
<td>(D) A Specific</td>
<td>a. 27, 58, 60, 64</td>
<td>A Hypothetical Action/State at Contemporaneous Present</td>
</tr>
<tr>
<td>Past</td>
<td>b. 70</td>
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</tr>
<tr>
<td>(E) After an Un-</td>
<td>a. 38</td>
<td></td>
</tr>
<tr>
<td>specified Point</td>
<td>b. 43, 68 with lawlā</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(F) Contemporaneous</td>
<td>65</td>
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<tr>
<td>Present</td>
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</table>


II. Test Two

In the following tables on the analysis of the data of Test Two, numbers are used to represent various Arabic tensemes. Numbers are assigned to different tensemes according to the following numerical code:

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<thead>
<tr>
<th>Number</th>
<th>Representative Tenseme*</th>
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</tr>
<tr>
<td>4</td>
<td>/kāna fa9al/</td>
</tr>
<tr>
<td>5</td>
<td>/sayaf9al/, /sawfa yaf9al/</td>
</tr>
<tr>
<td>6</td>
<td>/kāna sayaf9al/</td>
</tr>
<tr>
<td>7</td>
<td>/yakūnu fāqīl/</td>
</tr>
<tr>
<td>8</td>
<td>/kāna fāqīl/</td>
</tr>
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<td>9</td>
<td>/yakūnu maf9ūl/</td>
</tr>
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<td>10</td>
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</tr>
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<td>/sayakūnu yaf9al/</td>
</tr>
<tr>
<td>14</td>
<td>/kāna sayakūnu yaf9al/</td>
</tr>
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<td>/sayakūnu fa9al/</td>
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<tr>
<td>16</td>
<td>/kāna sayakūnu fa9al/</td>
</tr>
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<td>17</td>
<td>/sayakūnu fāqīl/</td>
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<td>18</td>
<td>/kāna sayakūnu fāqīl/</td>
</tr>
<tr>
<td>19</td>
<td>/sayakūnu maf9ūl/</td>
</tr>
<tr>
<td>20</td>
<td>/kāna sayakūnu maf9ūl/</td>
</tr>
</tbody>
</table>

*See the twenty tables of Test One for examples of actual Arabic tensemes.
TABLE 71

1. Formal Cue: /?ana (qara?) hādha lkitāb fi lmādi/
   'I (read) this book in the past.'
   Represented Temporal Category: General Past

<table>
<thead>
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<th>Sentence No.</th>
<th>Tense No.</th>
<th>Sentence No.</th>
<th>Tense No.</th>
<th>Sentence No.</th>
<th>Tense No.</th>
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<td>23.</td>
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<td>46.</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 72

2. Formal Cue: /?abi (dhahab) ?ila ssinama kullu ?usbū9

9indamā kāna shābhan/ 'My father (went) to
the cinema every week when he was young.'

Represented Temporal Category: General Past + Frequency

<table>
<thead>
<tr>
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<tr>
<td>23.</td>
<td>12</td>
<td>46.</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

*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:** /?innahu (jalas) bilhādīqa gindamā marru. 
   9alā dārihi bil?ams /
   'He (sat) in the garden when I passed by his house yesterday.'

Represented **Temporal Category:** Simultaneous Present

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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<td>46.</td>
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<td></td>
</tr>
</tbody>
</table>
TABLE 74

4. Formal Cue: /qāla biʔannahu (sāfar) baʔda takharrujihī lawlā wafāt wālīdīhi/

'He said that he (travelled) after his graduation but for the death of his father.'

Represented Temporal Category: Later Past (Unfulfilled)

<table>
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<tr>
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TABLE 75

5. Formal Cue: /naţnu (samīga) hādhihi lʔūghniya kathīran hādhihi lʔayyām/

'We (heard) this song a lot these days.'

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TABLE 76

6. Formal Cue: /ʔana (shāḥad)ḥāda lfilim marratayn gabla lʔān/

'I (saw) this film twice before now.

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### TABLE 77

7. **Formal Cue:** /?alʔatfäl (kabur) bisurṛa ǧādatan/

'Children (grew up) quickly usually.'

Represented Temporal Category: General Present

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TABLE 78

8. Formal Cue: /?idhā (sāfar) salīm ?īlā baghdād bilmusta?abal fa?innahu sayazūr lma?ṭafa lbaghdādi ḥatman/ 'If Salīm (travelled) to Baghdad in the future, he will certainly visit the Baghdādi Museum.'

Represented Temporal Category: General Future

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**TABLE 79**

9. **Formal Cue:** /(sāfar) salīm ʔilā baghdād ghadan/

'Salīm (travelled) to Baghdad tomorrow.'

**Represented Temporal Category:** Specific Future

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10. **Formal Cue:** /law (daras) jayyidan fi l9āmi lmādi lama rasab/

'If he (studied) hard last year, he would not have failed.'

**Represented Temporal Category:** Specific Past

(Plus Hypotheticalness)

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TABLE 81

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

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TABLE 82

12. **Formal Cue:** /?ana (katab) risāla gindamā ngata9a ttayyār lkahrabā?i fi llayla lmādiya/

'I (wrote) a letter when there was a power-cut last night.'

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TABLE 83

13. Formal Cue: /lam (safar) salim ?ila baghdad sâbiqan/
'Salim not (travelled) to Baghdad before.'
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(Plus Negation)

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TABLE 84

14. Formal Cue: /huwa lā yazāl (dahab) 7ila ssīnama marra wāhida kullā shahr/

'He still (went) to the cinema once a month.'

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TABLE 85

15. Formal Cue: /a?atatidu ?annanä lan najid-hu bilbayti 9inda dhihābinä ghadan li?annahu (qara?) fi lmaktaba hīnadāk/ 'I think we won't find him at home when we go tomorrow as he he (read) in the library then.'

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TABLE 86

Formal Cue: /ʔana (samia) hādhīhi lʔughniya 9iddata marrāt min qablu/

'I (heard) this song many times before. '

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17. **Formal Cue:** (/daras) salīm fi lmaktaba tuwāla yawmi

'Salīm (studied) in the library all day yesterday.'

**Represented Temporal Category:** Specific Past

(Plus Duration)

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TABLE 88

18. Formal Cue: /huwa (sāfar) fi ṭayyati lahza baḏa lʔān/
   'He (travelled) any moment (after) now.'

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?ilayhā fi ?usbūgi lmādi/
'My brother (travelled) to Baghdad before
I travelled there last week.'
Represented Temporal Category: Earlier Past

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'(He) said that the lecture (finished) now but for the many questions from the audience.'

**Represented Temporal Category:** Simultaneous Present (Plus Hypotheticalness)

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TABLE 91


'Zeki (went) to the cinema with me after the end of the examination tomorrow.'

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TABLE 92

22. Formal Cue: /ʔama (zār) lma9rid yawammā bil?usbūgi láādim/

'I (visited) the exhibition one day next week.'

Represented Temporal Category: General Future

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TABLE 93

Formal Cue: /(?anhā) salīm lkitāb cabla ssāga 1kharīsə  
shadan/

'Salīm (finished) the book before five 
o'clock tomorrow.'

Represented Temporal Category: Earlier Future

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TABLE 94

24. Formal Cue: /sālim (qara?) bilmaktaba ṭuwāla yawmi ighad/

'Sālim (read) in the library all day tomorrow.'

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TABLE 95

25. Formal Cue: /hiya (katab) risāla ?ilā ?ummiḥa līān/
   'She (wrote) a letter to her mother now.'
   Represented Temporal Category: Simultaneous Present/
   Recent Past / Near Future

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TABLE 96

This tree (grew) a great deal last year.

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**TABLE 97**

27. **Formal Cue:** *(marîda) salîm tuwâla 1?usbûqi lmâdi/*

'Salîm (was sick) all last week.'

**Represented Temporal Category:** Specific Past (Plus Duration)

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TABLE 98

28. Formal Cue: /salîm (qara?) kâthîran hâdhîhi l?ayyâm/
'Salîm (read) a loy these days.'

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</tr>
<tr>
<td>23.</td>
<td>1</td>
<td>46.</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 99

29. Formal Cue: /(sāfar) nābil ǧilā landan yāwmi yams/
'Nābil (travelled) to London yesterday.'
Represented Temporal Category: Specific Past

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
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<tr>
<td>3</td>
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<td>49</td>
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</tr>
<tr>
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<tr>
<td>5</td>
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<td>28</td>
<td>2</td>
<td>51</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>29</td>
<td>2</td>
<td>52</td>
<td>-</td>
</tr>
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<td>7</td>
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<td>53</td>
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</tr>
<tr>
<td>9</td>
<td>2</td>
<td>32</td>
<td>2</td>
<td>55</td>
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</tr>
<tr>
<td>10</td>
<td>2</td>
<td>33</td>
<td>2</td>
<td>56</td>
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</tr>
<tr>
<td>11</td>
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<td>34</td>
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<td>57</td>
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<tr>
<td>12</td>
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<td>14</td>
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<td>64</td>
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<td>19</td>
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<td>42</td>
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<td>66</td>
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<tr>
<td>21</td>
<td>2</td>
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<td>67</td>
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</tr>
<tr>
<td>22</td>
<td>2</td>
<td>45</td>
<td>2</td>
<td>68</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>46</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
'The door (was broken) before my arrival at the house yesterday.'

**TABLE 100**

Represented Temporal Category: Earlier Past

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2</td>
<td>24.</td>
<td>2</td>
<td>47.</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>2</td>
<td>25.</td>
<td>2</td>
<td>48.</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>26.</td>
<td>4</td>
<td>49.</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>2</td>
<td>27.</td>
<td>2</td>
<td>50.</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>2</td>
<td>28.</td>
<td>10</td>
<td>51.</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>2</td>
<td>29.</td>
<td>2</td>
<td>52.</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>2</td>
<td>30.</td>
<td>2</td>
<td>53.</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>2</td>
<td>31.</td>
<td>2</td>
<td>54.</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>2</td>
<td>32.</td>
<td>2</td>
<td>55.</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>2</td>
<td>33.</td>
<td>2</td>
<td>56.</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>2</td>
<td>34.</td>
<td>2</td>
<td>57.</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>-</td>
<td>35.</td>
<td>2</td>
<td>58.</td>
<td>2</td>
</tr>
<tr>
<td>13.</td>
<td>2</td>
<td>36.</td>
<td>2</td>
<td>59.</td>
<td>2</td>
</tr>
<tr>
<td>14.</td>
<td>2</td>
<td>37.</td>
<td>4</td>
<td>60.</td>
<td>2</td>
</tr>
<tr>
<td>15.</td>
<td>2</td>
<td>38.</td>
<td>2</td>
<td>61.</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>4</td>
<td>39.</td>
<td>2</td>
<td>62.</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
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<td>40.</td>
<td>4</td>
<td>63.</td>
<td>2</td>
</tr>
<tr>
<td>18.</td>
<td>2</td>
<td>41.</td>
<td>2</td>
<td>64.</td>
<td>4</td>
</tr>
<tr>
<td>19.</td>
<td>4</td>
<td>42.</td>
<td>2</td>
<td>65.</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>2</td>
<td>43.</td>
<td>2</td>
<td>66.</td>
<td>10</td>
</tr>
<tr>
<td>21.</td>
<td>2</td>
<td>44.</td>
<td>4</td>
<td>67.</td>
<td>10</td>
</tr>
<tr>
<td>22.</td>
<td>2</td>
<td>45.</td>
<td>2</td>
<td>68.</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>2</td>
<td>46.</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(D) Conclusions

I. 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

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s) *</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>To indicate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. An Action/State taking place at Simultaneous Present</td>
<td>1</td>
<td>22</td>
</tr>
</tbody>
</table>

*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.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseeme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. A General Habit or Fact (Seen as Timeless)</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>3. An Action/State that will Take Place or will be Going on at a Future Point/Period of Time</td>
<td>$1 + 5 + 9 + 11 + 13 + 17 + 19$</td>
<td>$+2 + 58 + 31 + 11 + 32 + 49 + 28$</td>
</tr>
<tr>
<td>4. An Action/State that took place or was Going on at a Point/Period in the Past</td>
<td>$2 + 8 + 10 + 12$</td>
<td>$52 + 46 + 42 + 47$</td>
</tr>
<tr>
<td>5. An Activity Continuing Up to Simultaneous Present</td>
<td>$1 + 2$</td>
<td>$2 + 1$</td>
</tr>
<tr>
<td>6. An Action/State that took place or was Going on at a Point at Recent Past</td>
<td>$2 + 4 + 10 + 12$</td>
<td>$3 + 4 + 2 + 2$</td>
</tr>
</tbody>
</table>
Table 101 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. An Action/State that took place or was Going on Before a Point in the Past</td>
<td>$2 + 4 + 8 + 10 + 12$</td>
<td>$4 + 48 + 2 + 10 + 5$</td>
</tr>
<tr>
<td>8. A Tentative Pre-Future Action/State</td>
<td>$3$</td>
<td>$29$</td>
</tr>
<tr>
<td>9. A Tentative Pre-Past Action/State</td>
<td>$3$</td>
<td>$6$</td>
</tr>
<tr>
<td>10. An Action/State that Frequently takes Place or is Going On Before a Point at an Unspecified Time</td>
<td>$3 + 7 + 9 + 11$</td>
<td>$27 + 5 + 3 + 2$</td>
</tr>
<tr>
<td>11. An Action/State that will take place or will be Going On After a Point in the Future</td>
<td>$5 + 7 + 9 + 11 + 13 + 17 + 19$</td>
<td>$8 + 3 + 7 + 4 + 7 + 3 + 14$</td>
</tr>
</tbody>
</table>

contd...
### Table 101 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseeme(s)</th>
<th>Numbers of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. An Action/State that will take place or will be Going on Before a Point in the Future</td>
<td>$5 + 7 + 9 + 11 + 13 + 15 + 17$</td>
<td>$2 + 5 + 3 + 2 + 1$</td>
</tr>
<tr>
<td>13. An Action/State that will take place or will be Going on at Near Future</td>
<td>$5 + 17$</td>
<td>$1 + 1$</td>
</tr>
<tr>
<td>14. An Action/State that took place or was taking place After a Point in the Past (Past Point of Reference)</td>
<td>$8 + 10 + 14 + 18 + 20$</td>
<td>$1 + 2 + 8 + 13 + 12$</td>
</tr>
<tr>
<td>15. A Hypothetical Action/State that took place or was Going on in the Past</td>
<td>$4 + 6 + 14$</td>
<td>$2 + 11 + 7$</td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tense(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. A Hypothetical Action/State that will take place or will be Going on in the Future</td>
<td>6 + 14 + 18</td>
<td>11 + 1 + 1</td>
</tr>
<tr>
<td>17. A Hypothetical Action/State that took place or was Going on Before a Point in the Past</td>
<td>6 + 14</td>
<td>2 + 4</td>
</tr>
<tr>
<td>18. A Hypothetical Action/State that will take place or will be Going on Before a Point in the Future</td>
<td>6 + 14 + 16</td>
<td>2 + 4 + 1</td>
</tr>
<tr>
<td>19. A Hypothetical Action/State taking place at Simultaneous Present</td>
<td>6 + 14 + 18 + 20</td>
<td>2 + 4 + 8 + 5</td>
</tr>
</tbody>
</table>

(contd...
Table 191 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. A Hypothetical Action/State taking Place at Contemporaneous Present</td>
<td>6 + 20</td>
<td>1 + 1</td>
</tr>
<tr>
<td>21. A Repeated Action/State that takes place or is Going on Simultaneously with an Unspecified Point</td>
<td>7 + 9 + 11</td>
<td>44 + 26 + 12</td>
</tr>
<tr>
<td>22. A Tentative Action/State Simultaneous with a Point/Period at Future</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td>23. A Tentative Action/State taking Place at Simultaneous Present</td>
<td>7 + 9 + 11 + 13 + 17</td>
<td>4 + 6 + 13 5 + 7</td>
</tr>
<tr>
<td>24. An Action/State that Frequently takes place or is Going on After an Unspecified Point (i.e. at all Times)</td>
<td>7 + 9 + 11</td>
<td>3 + 7 + 4</td>
</tr>
</tbody>
</table>

contd....
Table 101 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tenseme(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. An Action/State that will be Frequently Repeated in the Future</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>26. A Hypothetical Action/State that took place or was Going on After a Point in the Past (Past Point of Reference)</td>
<td>$14 + 6 + 18 + 20$</td>
<td>$3 + 3 + 18 + 23$</td>
</tr>
<tr>
<td>27. A Hypothetical Action/State that will take place or will be Going on After a Point in the Future</td>
<td>$6 + 14$</td>
<td>$3 + 3$</td>
</tr>
<tr>
<td>28. A Tentative Action/State at Recent Past</td>
<td>$3 + 15$</td>
<td>$9 + 6$</td>
</tr>
</tbody>
</table>

contd...
Table 101 contd.

<table>
<thead>
<tr>
<th>The Function</th>
<th>The Representative Tense(s)</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>29. A Tentative Action/State that was Planned to take place or to be Going on Before a Point at Post-Past (Past Point of Reference)</td>
<td>16</td>
<td>1 10</td>
</tr>
<tr>
<td>30. A Hypothetical Action/State that took place or Was Going on Recent Past</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>31. A Hypothetical Action/State that took place or Was Going on Before a Point at Post-Past</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>32. An Action/State taking Place at Simultaneous Present or Near Future</td>
<td>19</td>
<td>13</td>
</tr>
</tbody>
</table>
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 tensemes 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 tensemes and functions in any tense system.

Another relevant observation that can be made from Table 101 is that compound and complex tensemes with active participles tend to co-occur with their corresponding tensemes with passive participles in the majority of cases. Tensemes 7 and 9, for example appear together in most cases and so do the pairs of tensemes 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 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 tensemes 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 tensemes given at the end of this chapter, therefore, only those tensemes with active participles are given as representative of both kinds of tensemes 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 tensemes 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\}. It has already been said that the non-earlier aspectual marker is often used in Arabic to indicate 'durativeness' whereas \{P_2\} is used to indicate simultaneity. It now becomes clear that though Arabic formally distinguishes between \{P_2\} and \{P_2\}, 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\}. Moreover, 'durativeness' is often a pre-requisite for simultaneity, medial simultaneity in particular, and this may be another source of this

\[1\] See 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 tensemes of the non-past tense while all the even numbers stand for past-tense tensemes. This clustering of like tensemes shows the strong temporal relatedness among the tensemes of either tense in Arabic.

A clearer picture of the functions of tensemes can yet be obtained from Table 101 if the tensemes, 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>
<thead>
<tr>
<th>The Tenseme&lt;sup&gt;12&lt;/sup&gt;</th>
<th>Its Function(s)&lt;sup&gt;13&lt;/sup&gt;</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 + 2 + 3 + 5</td>
<td>22 + 23 + 2 + 2</td>
</tr>
<tr>
<td>2</td>
<td>4 + 5 + 6 + 7</td>
<td>52 + 1 + 3 + 4</td>
</tr>
<tr>
<td>3</td>
<td>8 + 9 + 10 + 29 + 35</td>
<td>29 + 6 + 27 + 9 + 29</td>
</tr>
<tr>
<td>4</td>
<td>6 + 7 + 16</td>
<td>4 + 48 + 2</td>
</tr>
<tr>
<td>5</td>
<td>3 + 12 + 13 + 14</td>
<td>58 + 8 + 2 + 1</td>
</tr>
<tr>
<td>6</td>
<td>16 + 17 + 18 + 19 + 20 + 21 + 27 + 28 + 34 + 35</td>
<td>11 + 11 + 2 + 2 + 2 + 1</td>
</tr>
<tr>
<td>7</td>
<td>10 + 12 + 13 + 22 + 23 + 24 + 25</td>
<td>+ 2 + 1 + 3 + 3</td>
</tr>
<tr>
<td>8</td>
<td>4 + 7 + 15</td>
<td>46 + 2 + 1</td>
</tr>
<tr>
<td>9</td>
<td>3 + 10 + 12 + 13 + 22 + 23 + 24 + 25</td>
<td>31 + 3 + 7 + 3 + 26 + 6 + 7</td>
</tr>
<tr>
<td>10</td>
<td>4 + 6 + 7 + 15</td>
<td>42 + 2 + 10 + 2</td>
</tr>
<tr>
<td>11</td>
<td>3 + 10 + 12 + 13 + 22 + 24 + 25</td>
<td>11 + 2 + 4 + 2 + 12 + 13 + 4</td>
</tr>
<tr>
<td>12</td>
<td>4 + 6 + 7</td>
<td>47 + 2 + 5</td>
</tr>
<tr>
<td>13</td>
<td>3 + 12 + 13 + 24 + 26 + 36</td>
<td>32 + 7 + 5 + 4 + 1 + 2</td>
</tr>
</tbody>
</table>

<sup>12</sup>Numbers in this column represent the various tensemes as in Table 101.

<sup>13</sup>Numbers here refer to functions as listed in Table 101.
Table 102 contd.

<table>
<thead>
<tr>
<th>The Tenseme</th>
<th>Its Function(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>15 + 16 + 17 + 18+</td>
<td>8 + 7 + 1 + 4 +</td>
</tr>
<tr>
<td></td>
<td>19 + 20 + 27 + 28</td>
<td>4 + 4 + 3 + 3</td>
</tr>
<tr>
<td>15</td>
<td>13 + 29 + 37</td>
<td>32 + 6 + 3</td>
</tr>
<tr>
<td>16</td>
<td>19 + 30 + 31 + 32</td>
<td>1 + 10 + 5 + 19</td>
</tr>
<tr>
<td>17</td>
<td>3 + 12 + 13 + 14</td>
<td>49 + 3 + 1 + 1</td>
</tr>
<tr>
<td></td>
<td>+ 24</td>
<td>+ 7</td>
</tr>
<tr>
<td>18</td>
<td>15 + 17 + 20 + 27</td>
<td>13 + 1 + 18</td>
</tr>
<tr>
<td>19</td>
<td>3 + 12 + 33</td>
<td>28 + 14 + 13</td>
</tr>
<tr>
<td>20</td>
<td>15 + 20 + 21 + 27</td>
<td>12 + 5 + 1 + 23</td>
</tr>
</tbody>
</table>

Some tensemes, it can be seen from Table 102 above, are not used in the responses to Test One as frequently as other tensemes. This is especially the case with complex tensemes like 16, 18, and 20 as well as others that express rather complicated temporal relations. Some students have avoided using such tensemes in the majority of cases, as can be seen from the blanks in the individual tables/tensemes reported earlier. In few other cases, these tensemes 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 claims\(^{15}\), 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 tensemes would be listed for each of the thirty temporal categories. Moreover, the frequency of indicating each temporal category, or function, by a given tenseme

\(^{14}\)See verbs in sentences 5, 7, 16, 20, and 27 on test sheet of Test Two on pages 399 - 402.

\(^{15}\)See 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**

<table>
<thead>
<tr>
<th>Temporal Category (Function) 16</th>
<th>Representative Tenseme(s) 17</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 + 4</td>
<td>65 + 3</td>
</tr>
<tr>
<td>2</td>
<td>12 + 2</td>
<td>44 + 5</td>
</tr>
<tr>
<td>3</td>
<td>8 + 4 + 12</td>
<td>34 + 2 + 8</td>
</tr>
<tr>
<td>4</td>
<td>5 + 16 + 6 + 8</td>
<td>44 + 4 + 5 + 2</td>
</tr>
<tr>
<td>5</td>
<td>1 + 5</td>
<td>61 + 1</td>
</tr>
<tr>
<td>6</td>
<td>2 + 4</td>
<td>60 + 7</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>62</td>
</tr>
<tr>
<td>8</td>
<td>2 + 1</td>
<td>48 + 10</td>
</tr>
<tr>
<td>9</td>
<td>5 + 1 + 17</td>
<td>47 + 15 + 1</td>
</tr>
<tr>
<td>10</td>
<td>2 + 8 + 12 + 4</td>
<td>44 + 3 + 3 + 18</td>
</tr>
<tr>
<td>11</td>
<td>6 + 2 + 16</td>
<td>16 + 20 + 2</td>
</tr>
<tr>
<td>12</td>
<td>12 + 4</td>
<td>47 + 1</td>
</tr>
<tr>
<td>13</td>
<td>1 + 3</td>
<td>59 + 3</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>15</td>
<td>1 + 13 + 5 + 11</td>
<td>21 + 9 + 12 + 4</td>
</tr>
</tbody>
</table>

16 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.

17 Numbers stand for Arabic tensemes as shown in Table 70 on page 628.
Table 103 contd.

<table>
<thead>
<tr>
<th>Temporal Category (Function)</th>
<th>Representative Tenseme(s)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>$2 + 12 + 4$</td>
<td>$55 + 1 + 6$</td>
</tr>
<tr>
<td>17</td>
<td>$2 + 12 + 4$</td>
<td>$41 + 22 + 2$</td>
</tr>
<tr>
<td>18</td>
<td>$5 + 1 + 7$</td>
<td>$41 + 23 + 1$</td>
</tr>
<tr>
<td>19</td>
<td>$2 + 4$</td>
<td>$45 + 19$</td>
</tr>
<tr>
<td>20</td>
<td>$12 + 6 + 5 + 4$</td>
<td>$3 + 4 + 4 + 11$</td>
</tr>
<tr>
<td></td>
<td>$+ 8 + 15$</td>
<td>$+ 2 + 1$</td>
</tr>
<tr>
<td>21</td>
<td>$5 + 1 + 17$</td>
<td>$56 + 9 + 1$</td>
</tr>
<tr>
<td>22</td>
<td>$5 + 1$</td>
<td>$45 + 8$</td>
</tr>
<tr>
<td>23</td>
<td>$5 + 1 + 15$</td>
<td>$39 + 14 + 3$</td>
</tr>
<tr>
<td>24</td>
<td>$5 + 1 + 11$</td>
<td>$44 + 11 + 1$</td>
</tr>
<tr>
<td>25</td>
<td>$1 + 5 + 2$</td>
<td>$48 + 8 + 11$</td>
</tr>
<tr>
<td>26</td>
<td>$2 + 4$</td>
<td>$64 + 3$</td>
</tr>
<tr>
<td>27</td>
<td>$8 + 2 + 4$</td>
<td>$21 + 42 + 3$</td>
</tr>
<tr>
<td>28</td>
<td>$1$</td>
<td>$61$</td>
</tr>
<tr>
<td>29</td>
<td>$2 + 4 + 8$</td>
<td>$61 + 3 + 1$</td>
</tr>
<tr>
<td>30</td>
<td>$2 + 4 + 10$</td>
<td>$48 + 15 + 4$</td>
</tr>
</tbody>
</table>

Once more, the information provided by the above table could be made even more useful and more relevant to our purposes if the tensemes, rather than the functions, are taken as the basis of the comparison. This could be done by listing the tensemes 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**

<table>
<thead>
<tr>
<th>Representative Tenseme</th>
<th>Represented Temporal Category (Function)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 + 7 + 8 + 9 + 13 + 14 + 15 + 18 + 21 + 22 + 23 + 24 + 25 + 28</td>
<td>61 + 62 + 10 + 15 + 59 + 65 + 21 + 23 + 9 + 8 + 14 + 11 + 48 + 61</td>
</tr>
<tr>
<td>2</td>
<td>1 + 2 + 6 + 8 + 10 + 11 + 16 + 17 + 19 + 25 + 26 + 27 + 29 + 30</td>
<td>65 + 5 + 60 + 48 + 44 + 20 + 55 + 41 + 45 + 11 + 64 + 42 + 61 + 48</td>
</tr>
</tbody>
</table>

contd...
Table 104 contd.

<table>
<thead>
<tr>
<th>Representative Tenseme</th>
<th>Represented Temporal Category (Function)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>1 + 3 + 6 + 10 + 12 +6 +10 + 20 + +16 + 17 + 19 + 20 + +26 + 27 + 29 + 30</td>
<td>3 + 2 + 7 + 18+1 +6 + 2 + 19+11 + 3 + 3 + 3 +15</td>
</tr>
<tr>
<td>5</td>
<td>4 + 5 + 9 + 15 + 18 + 20 + 21 + 22 + 23+ +24 + 25</td>
<td>44 + 1 + 47 +12 + 41 + 4 + 56 + 45 + 39 + 44 + 8</td>
</tr>
<tr>
<td>6</td>
<td>4 + 11 + 20</td>
<td>5 + 16 + 4</td>
</tr>
<tr>
<td>7</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>3 + 4 + 10 + 20 + 27 + 29</td>
<td>34 + 2 + 3 + 2 + 21 + 1</td>
</tr>
<tr>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>30</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>15 + 24</td>
<td>4 + 1</td>
</tr>
<tr>
<td>12</td>
<td>2 + 3 + 10 + 12 + 16 + 17 + 20</td>
<td>44 + 8 + 3 +47 + 1 + 22 + 3</td>
</tr>
<tr>
<td>13</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>4 + 11</td>
<td>4 + 2</td>
</tr>
<tr>
<td>17</td>
<td>9 + 21</td>
<td>1 + 1</td>
</tr>
<tr>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

contd...
In Table 104 above, the previously observed phenomenon of the rarity of examples on some tensemes is again prominent. Moreover, some other tensemes 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 tensemes and do away with complex ones since, by associations with different temporal adverbials, these simple tensemes may indicate the functions of the more complex ones. The tensemes that are not represented in the datum of Test Two are all of the sort of tensemes which express complex temporal relations. Another reason for leaving out such complex tensemes 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 tensemes 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 tensemes? Test One was especially devised to secure that all Arabic tensemes 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 tensemes, 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 1C2 and 104 of Tests One and Two respectively are integrated. The results of this synthesis appear in the individual descriptions of tensemes which are listed below. For each tenseme, 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 : /yaf9al/**

(A) Systematic Functions

1. To indicate Simultaneous Present

**Frequency** 19: 22 + 48

**Co-occurrent Adverbials:** /l?än /'now'; /fi hâdhihi lla[h]za/ 'at this moment';...

**Examples from Data**

(a) /yaktubu tṭälibu ddarsa 1?än / (1.1)20

'The pupil (is) writ(ing) the lesson now'

(b) /yaktubu ttalâmidhu lmuhâdara fi hâdhihi ddaqîqa/ (1.65)

'The students (are) writ(ing) the lecture at this moment.'

---

18 For the distinguishing criterion between systematic versus non-systematic functions, see p. 590.

19 The 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.

20 In 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 ?iilā ?ummihā l?ān./
(2.93)
'She (is) writ(ing) a letter to her mother now.'

2. To indicate Contemporaneous Present

Frequency: None + 122

Co-occurrent Adverbials: /hādhihi l?ayyām/'these days';...

Examples

(a) /nahnu nasma9 hādhihi l?ughniya kathīran hādhihi l?ayyām/ (2.73)
'We hear this song a lot these days.'

(b) /salīm yaqra9u kathīran hādhihi l?ayyām/ (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 wāhīda kulla shahr/'once a month'; /gādatan/
'usually'; /sanawiyyan/
'annually'; /fi kulli masa9/ 'every evening';...

Examples

(a) /yaktubu ṭṭālib darsah 9inda rujū9ihi mina
Imadrasa/ (1.3)
'The pupil writes his lesson when he comes back from school.'

(b) /yaktubu lqâṣṣu ?arba9ata qaṣaṣṣ sanawiyyan/ (1.27)
'The novelist writes four novels annually.'

(c) /yaktubu muḥammad risāla fi kulli masā?/ (1.53)
'Mohammad writes a letter every evening.'

(d) /? al?atfâl yakburūna bisur9a 9ādatan/ (2.75)
'Children grow up quickly usually.'

(e) /huwa lâ yazâl yadhhab ?ila ssīnama marra wâhida kullah 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'; /bil?usbūgi lqâdim/'next week'; ...

Examples
(a) /yaktubu ?abi rrisāla ghadan/ (1.44)
'May father writes the letter tomorrow.'

(b) /? idhâ yusāfir salîm ?ilâ baghdâd bilmustaqbal, fa?innahu sayazûru lmatḥafa 1baghdâdi 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 dhīhābina ghadan li?annahu yaqra? fi lmaktaba hīnahāk/ (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 lma9riḏ yawmamā bil?usbūqī 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 ḥayfā/'since I travelled to Haifa'; ...

Examples

(a) /yaktubu shshi9ra mundhu sinīn/ (1.24)
'He (has been) writ(ing) pēetry for years.'

(b) /lam yaktub risāla mundhu safari ?ilā ḥayfā/ (1.70)
'He (has)not writ(ten) since I travelled to Haifa.'
3. To refer to a Near Future

Frequency: None + 23


Examples

(a) /huwa yusafir fi ?ayyati la?ha ba9da l?an/
   'He travels any moment now.' (2.86)

4. To indicate Duration in the Future

Frequency: None + 11

Adverbials: /tuwa?a yawmi lghad/'all day tomorrow';...

Examples

(a) /salim yaqra? bilmaktaba tuwa?a yawmi lghad/
   'Salim (will be) read(ing) in the library all day tomorrow.' (2.92)

5. To refer to a Time After a Point in the Future

Frequency: None + 9

Adverbials: /ba9da nihayati l?imti?an ghadan/'after the end of the examination tomorrow';...

Examples

(a) /zaki yadhhab ?ila ss?nama ma9i ba9da nihayati l?imti?an 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 Future

Frequency: 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: /fāgal/

(A) Systematic Functions

1. To refer to a Specific Point in the Past
Frequency: 52 + 125
Adverbials: /yawmā ?ams/'yesterday'; /fi ssā9a 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 liwālidatihi
9ashiyyata lbāriḥa/
'The boy wrote a letter to his mother yesterday evening.'

(c) /kaburat hādhihi shshajara kathīran
fi ssana lmādiya/
'This tree grew a great deal last year.'

(d) /sāfar nabil ?ilā landan yawmā ?ams/
'Nabīl travelled to London yesterday.'

2. To indicate an Unspecific Point in the Past
Frequency: None + 175
Adverbials: /fi lmādi/'in the past'; /qabla lʔān/
'before (now)'; /min qablu/'before';...

Examples
(a) /ʔana qaraʔtu hādha lkitāb fi lmādi/ (2.69)
'I (have) read this book in the past.'
(b) /ʔana shāḥattu hādha lfilim marratayn qabla lʔān/
(2.74)
(I saw this film twice before.)
'I have seen this film twice before.'
(c) /ʔana sami9tu hādhihi lʔughniya qiddata
marrāt min qablu/
(2.84)
'I (have) heard this song many times before.'

3. To indicate Recent Past
Frequency: 3 + 11
Adverbials: /lʔān /'now';...
Examples
(a) /katabati ddarsa l?an / (1.32)
   (She wrote the lesson now.)
   'She has just written the lesson.'
(b) /hiya katabat risa?la ?il?a ?ummi?a l?an / (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: l + None

Adverbials: /mundhu sanat ?alf watis9mi?a wathamaniyat 9ashar/'since nineteen eighteen';... 

Examples
(a) /kataba jjawahiri qas?idahu mundhu sanat ?alf watis9mi?a wathamaniyat 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: /tuwala yawmi ?ams/'all day yesterday';
           /tuwala l?usbu9i lmadi/'all last week';...

Examples
(a) /darasa salim fi lmaktaba tuwala yawmi
Salīm studied in the library all day yesterday.

(b) Salīm was sick all last week.

6. To indicate a Hypothetical Past (with /law/'if')

Frequency: None + 44

Adverbials: /fi 19āmi lmādi/'last year'; ...

Examples

(a) law daras jayyidan fi 19āmi 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 l?usbū9i lmādi/'before my travelling last week'; /qabla wsūli bil?ams/'before my arrival yesterday'; ...

Examples

(a) katab muḥammad risāla qabla ?an yusāfīr/ (1.50)

Mohammad wrote a letter before he travelled.

(b) sāfar ?akhi ?ilā baghdād qabla safari ?ilayhā fi l?usbū9i 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) /?inna 1bāba kusira qabra wuṣūli ?īlā ddār bil?ams/

'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 bil?ams... ba9da qalīl/'a little while after I left him yesterday';...

Examples

(a) /9indamā taraktuhu bil?ams kataba risāla ?īlā wālīdīhi ba9da qalīl ...

'A little while after I left him yesterday, he wrote a letter to his father.'

3. To refer to a Future Time (after /?idhā/'if'

Frequency: None + 48

Adverbials: /bilmustaqbal/'in the future';...

Examples

(a) /?idhā sāfar salīm ?īlā baghdād bilmustaqbal fa?innahu sayazūru lmatḥafa lbaghdādi ḥatman/

(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 ssābaḥ/'in the morning'; /gindamā ?asīlu ?ilā baytikum ssāban/'when I arrive at your house (every) morning'; /fi ssā9a 19āshira/'at ten o'clock';...

**Examples**

(a) /takūnu lbintu dhahabat fi ssābaḥ/ (1.1)

'In the morning (every day), the girl has gone .TabPage.'

(b) /gindamā ?asīlu ?ilā baytikum ssāban 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 19āshira/ (1.43)

'She (usually) has gone by ten o'clock.'

2. **To indicate a Tentative Recent Past**

**Frequency:** 9 + None

**Adverbials:** /lān/'now';...
Examples

(a) /takūnu najāt qad dhahabat ?ila lmadrasa
   1ʔān/ (1.7)
   'Najāt (will) have gone to school now.'
(b) /hal takūnu șadīqati dhahabat 1ʔān/? (1.44)
   'Has my friend gone (by) now?'

3. To indicate a Tentative Past

Frequency: 29 + None

Adverbials: /sabāḥan/'in the morning'; /lbaruḥa/
   'yesterday';...

Examples

(a) /takūnu dhahabati lfatāt sabāḥan ?ila
   lmadrasa/ (1.2)
   'The girl (would) have gone to school in
   the morning.'
(b) /takūnu dhahabati lbaruḥa/ (1.60)
   'She (would) have gone yesterday.'

(B) Non-systematic Functions

1. To indicate a Tentative Pre-Past

Frequency: 6 + None

Adverbials: /qabla dhiḥābi ?ila ḥadīqa/'before my
   going to the garden'; /qabla ḡuhrī
   ?ams/'before noon yesterday';...

Examples

(a) /qabla dhiḥābi ?ila ḥadīqa takūnu qad
dhahabat hind/ (1.20)
'Hind (would) have gone before my going
to the garden.'

(b) /laylā takūnu dhahabat qabla zuhri ?ams .../ (1.33)
'Layla (would) have gone before noon yesterday.'

2. To indicate a Tentative Pre-Future

Frequency: 29 + None

Adverbials: /sabāḥan/ 'in the morning'; /ba9da ttakharruj/ 'after graduation'; ...

Examples

(a) /takūnu laylā qad dhahabat ?ila 19ashshār sabāḥan/ (1.27)
'Layla (will) have gone to Al-Ashar in the morning.'

(b) /takūnu lfatāt ba9da ttakharruj dhahabat ?ila ?ahlihā/ (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 ?ila baghdād sābiqan/ (2.81)
'Salīm had not travelled to Baghdad before.'
EARLIER PAST; /kāna faqal/

(A) Systematic Functions

1. To refer to a Point that Precedes Another in the Past

Frequency: 37 + 37

Adverbials: /qabla nnawm/'before going to bed';
/qabla safari fi l?usbūgi lmaḏi/'before my travelling last week'; /qabla wuṣūli bil?ams/'before my arrival yesterday'; /sabāḥan/'in the morning';...

Examples

(a) /? akhi kāna katab darsah qabla nnawm/ (1.3)
'My brother had written his lesson before going to bed.'

(b) /kāna lmusāfir qad kataba rrisāla qabla ?an yusāfir/ (1.54)
'The passenger had written the letter before he travelled.'

(c) /kāna ?akhi qad safar ?ilaṣ baghdād qabla safari ?ilayḥa fi l?usbūgi lmaḏi/ (2.87)
'My brother had travelled to Baghdad before I did last week.'

(d) /? inna lbāba kāna kusir qabla wuṣūli ?ila ddār bil?ams/ (2.98)
'The door had been broken before my arrival at the house yesterday.'
(B) Non-systematic Functions

1. **To refer to a General Past**

   **Frequency:** None + 16

   **Adverbials:** /fi lmaid/ 'in the past'; /min qablu/ 'before'; /qabla l?an/ 'before now';...

   **Examples**

   (a) /?ana kuntu qara?tu hadha lkitaba fi lmaid/ (2.69)

     'I had read this book in the past.'

     (I had read this book in the past.)

   (b) /?ana kuntu shahattu hadha lfilim marratayni qabla l?an/ (2.74)

     'I have seen this film twice before.'

     (I had seen this film twice before now.)

   (c) /?ana kuntu sami9tu hadhihi l?ughniya 9iddata marrat min qablu/ (2.84)

     'I have heard this song many times before.'

     (I had heard this song many times before.)

2. **To refer to a Specific Past**

   **Frequency:** None + 6

   **Adverbials:** /fi l9ami lmaid/ 'last year'; /yawma ?ams/ 'yesterday';...

   **Examples**

   (a) /kanat hadhihi shshajara qad kaburat kathiran fi ssana lmaidiya/ (2.94)

     'This tree had grown a lot last year.'

     (This tree had grown a lot last year.)
(b) /kāna nabil qad sāfar ?ilā landan yawma?ams/ (2.97)
(Nabil had travelled to London yesterday.)
'Nabil travelled to London yesterday.'

3. To refer to Recent Past

Frequency: 4 + None
Adverbials: /l?an/'now';...

Examples
(a) /kāna ttilmidhu qad katab darsah l?an / (1.2)
(The pupil had written his lesson now.)
'The pupil has just written his lesson.'
(b) /kāna l?an qad katab/ (1.38)
(He had written now.)
'He has just written.'

4. To indicate Duration in the Past

Frequency: None + 5
Adverbials: /tuwäla 1?usbü9i lmädi/'all last week';
/tuwäla yawmi ?ams/'all day yesterday';...

Examples
(a) /kāna salīm qad darasa fi lmaktaba tuwäla 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 marida tuwäla 1?usbü9i lmädi/ (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: /lān /'now';...

Examples
(a) /qala bi?anna lmuhādara kānat ntahat lān
    lawlā ?as?ilatu 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 ziyārati 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 19ami lmaḏi
lamā rasab/  (2.78)
'If he had studied well last year, he (would)
not (have) failed.'

LATER PRESENT : /sayaf9al/

(A) Systematic Functions

1. To indicate a Future Time

Frequency: 36 + 78

Adverbials: /sabāhan/'in the morning'; /ghadan/
'tomorrow'; /yawmammā bil?ūsu?i
lqādim/'one day next week';...

Examples
(a) /satusafiru ?ila lbasra ghadan/    (1.31)
'She will travel to Basrah tomorrow.'
(b) /sayusafir salis ?ilā baghdād ghadan/ (2.77)
'Salīm will travel to Baghdad tomorrow.'
(c) /?ana sa?azūru lma9rid yawmammā bil?usbū?i
lqādim/    (2.90)
'I will visit the fair one day next week.'

2. To indicate a time at Near Future

Frequency: 1 + 50

Adverbials: /l?an/'now'; /hādhihi l?ayyān/'these
days'; /fi ?ayyati lahza ba9da l?an/
'any moment (after) now';...
Examples

(a) /satusafir lbintu l?ān/ (1.17)
'The girl will travel now.'

(b) /nahnu sanasma9 hādhihi l?ughniya kathīran hādhihi l?ayyām/ (2.73)
'We will hear this song a lot from now on.'

(c) /huwa sayusafir fi ?ayyati laḥza ba9da l?ān/ (2.86)
'He will travel any moment now.'

(d) /hiya satakutb risāla ?ilā āummihā l?ān/ (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: /l?ān/ 'now';...

Examples

(a)/qāla bi?anna lmuḥādirāra satantahi l?ān lawlā ?as?ilatu lḥādirīna 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 lqāhirā ba9da takharrujihā/ (1.70)
'Dalāl will travel to Cairo after her graduation.'

(c) /zaki sayadhhab ?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 wāliduha ?ila 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 1kitāba 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 takharrujhi/'after his graduation';...

Examples

(a) /qāla bi?annahu sayusāfir ba9da takharrujhi../ (2.72)
(He said he will travel after his graduation...)
'He said he would travel after his graduation.'

LATER PAST: /kānaś 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) /kānatīttāliba satusāfir ba9da ttakharruj/ (1.2)
   'The student was to travel after graduation.'

(b) /kānat satusāfir ba9da ssā9a 19āshira/ (1.39)
   'She was to travel after ten o'clock.'

(c) /sadīqati kānat satusāfir ba9da ttakharruj/ (1.68)
   '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 1ghadā?/'after lunch'; /ba9da takharrujihī/'after his graduation';
   /9indamā taraktuhu bil?ams ... ba9da qalīl/'a short time after I left him yesterday';...

Examples

(a) /kānat fāṭima satusāfir ba9da 1ghadā? lawlā ta9akkuri jjaw/ (1.27)
   'Fatima would (have) travel(led) after lunch but for the bad weather.'

(b) /kānat satusāfir ba9da ttakharruj lawlā wafāt wālidihi/ (1.68)
   'She would (have) travel(led) after graduation but for her father's death.'

(c) /qāla bi?annahu kāna sayusāfir ba9da takharrujihī lawlā wafāt wālidihi/ (2.72)
'He said he would (have) travel(led) after his graduation but for his father's death.'

(d) /gindamā taraktuhu bil?amsi kāna sayaktub risāla ?išā wālidihī ba9da qalīl. walākin yabdu ?annahu qad ghayyara ra?yahu 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 ?ushū9/'a week ago'; /bil?ams/

Examples

(a) /kānat ?ukhti satusāfir fi ssā9a l9āshira/ (1.1)
'My sister was to travel at ten o'clock.'

(b) /kānat satusāfir qabla ?ushū9/ (1.45)
'She was to travel a week ago.'

(c) /hayfā? kānat satusāfir gindamā ra?aytuha—
bil?ams/ (1.67)
'Haifa' was to travel when I saw her yesterday.'
2. To indicate a Hypothetical Past (usu. with /lawlā/ 'if not')

Frequency: 11 + None

Adverbials: /?ams/'yesterday'; /fi ssā9a 19āshira/ 'at ten o'clock';...

Examples

(a) /law lam ?alḥaq bihā kānāt satusāfīr ?amsi/ (1.22)
   'If I (had) not managed to catch her, she would (have) travel(led) yesterday.'

(b) /kānāti tţā?ira satusāfīr fi ssā9a 19āshira lawlā''lharb/ (1.32)
   (The plane would leave at ten but for the war.)
   'The plane would have left at ten but for the war.'

(c) /kānāt ?amal satusāfīr bil?ams lawlā maradīhā/ (1.66)
   'Amal would (have) travel(led) yesterday but for her illness.'

3. To indicate a Hypothetical Pre-Past

Frequency: 2 + None

Adverbials: /qabra wušūli ?ilayhā sabāḥan/ 'before I reached her in the morning';

/qabra ?an yuṣāfīr ?akhūhā/ 'before her brother travelled';...

Examples

(a) /kānāt satusāfīr ṣadīqati qabra wušūli
(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 suqād satusāfir qabla ?an yusāfir ?akhūha/ (1.12)

'Suqād would (have) travel(led) before her brother did so.'

4. To indicate a Hypothetical Future (usu. with /lawla/ 'if not')

Frequency: 11 + None

Adverbials: /ghadan/'tomorrow'; /bil?usbūji lqādim/

'next week';...

Examples

(a) /kānat khadīja satusāfir ghadan/ (1.11)

'Khadīja would (have) travel(led) tomorrow.'

(b) /kānat satusāfir bil?usbūji lqādim lawla zīrūf ?alammat biha/ (1.13)

'She would (have) travel(led) next week but for certain circumstances.'

(c) /kānat huda satusāfir ?ila baghdad ghadan lawla wafāt wālidiha/ (1.69)

'Huda would (have) travel(led) to Baghdad tomorrow but for her father's death.'
5. To indicate a Hypothetical Pre-Future

Frequency: 2 + None

Adverbials: /qabla wusūli sabāḥan/ 'before my arrival in the morning'; /qabla ?an yusafir ?akhūhā/ 'before her brother travels';...

Examples

(a) /kānat satusāfir sādīqaqī qabla wusūli ḥilayhā sabāḥan/ (1.4)
'My friend would (have travelled) before my arrival in the morning.'

(b) /kānat suqād satusāfir qabla ?an yusafir ?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 /lawla/ 'if not')

Frequency: 3 + None

Adverbials: /baqda lghabdā?/ 'after lunch'; /baqda ttakharruj/ 'after graduation';...

21 This 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.
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Examples

(a) /kānat fāṭima satusāfir bağda lghadā? lawlā ta9akkuri jjaw/ (1.27)
   ‘Fāṭimawould (have) travel(led) after lunch but for the bad weather.’
(b) /kānat satusāfir bağda ttakharruj lawlā wafāt wālidīhā/ (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) /qala bi?anna lmuhādara kānat satantahi l?ān lawlā ?as?ilatu lḥādirīnā 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
?abīha/ (1.33)
'She would (have) travel(led) today but for her father's death.'

SIMULTANEOUS NON-PAST: /yakūnu fa9il/

(A) Systematic Functions

1. To indicate a Habitual Action/State Simultaneous with an Unspecified Point (i.e. at all Times)
Frequency: 44 + None
Adverbials: /sabāhan/'in the morning'; /fi ssā9a 19āshira 9ādatan/'usually at ten o'clock';...

Examples
(a) /yakūnu lwalad nā?im sabāhan/ (1.1)
'The boy is (usually) sleeping in the morning.'
(b) /yakūnu ?akhi l?asghar nā?im fi ssā9a 19āshira 9ādatan/ (1.4)
'My younger brother is (usually) sleeping at ten.'
(c) /yakūnu zayd nā?im fi kulli marra ?azurūhu filhā/ (1.69)
'Zayd is sleeping every time I visit him.'

2. To indicate a Tentative Simultaneous Present
Frequency: 4 + None
Adverbials: /l?ān/'now'; /fi hādhihi ssā9a/ 'at this hour';...
Examples

(a) /qad yakûnu zaydun nā?im l?ān/  (1.7)
   'Zayd (will) be sleeping now.'
(b) /yakûnu ?abi nā?imani l?ān/  (1.51)
   'My father (will) be sleeping now.'
(c) /yākûnu zaydun nā?im 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'; /ząhran/
   'at noon'; /fi ?ayyati laḥza ba9da l?ān/'any moment now!'; ...

Examples

(a) /yakûnu ?akhi nā?im ṣabāḥan/  (1.10)
   'My brother (will) be sleeping in the morning.'
(b) /yakûnu ?abi nā?im fi ssā9a 19āshira/ (1.44)
   'My father (will) be sleeping in the morning.'
(c) /huwa yakûnu musāfir fi ?ayyati laḥza ba9da l?ān/  (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 rri44a/'after suckling';
             /ba9da 19ishä?/'after supper';...

Examples

(a) /yakünu 7iflu nā?im ba9da rri44a/ (1.27)
   'The baby is (usually) sleeping after suckling.'

(b) /yakünu muḥammad nā?im ba9da 19ishä?/ (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 yusāfin/'before he travels';
             /qabla ssā9a ththāmina/'before eight o'clock';...

Examples

(a) /yakūnū 9aliyyun nā?im qabla ?an yusāfin/ (1.15)
   'Ali is (usually) sleeping before he travels.'

(b) /yakūnū lmudarrisī su 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 rriđā9a/'after suckling'; /ba9da 19ishā?/'after supper'; /ba9da ssā9a 19ashira/'after ten o'clock'; ...

Examples

(a) /yakūnu ttīflu nā?im ba9da rriđā9a/ (1.27) 'The baby (will) be sleeping after suckling.'

(b) /yakūnu muhammad nā?im ba9da 19ishā?/ (1.29) 'Mohammad (will) be sleeping after supper.'

(c) /lā tuthīra ḍajja fa?innahu yakūnu nā?im ba9da ssā9a 19āshira/ (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 19āshira/'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 19āshira/ (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: /sabāhan/'in the morning'; /9indamā ra?aytuhu bil?ams/'when I saw him yesterday'; /bil?ams/'yesterday'; /tuwāla l?usbū9i lmādi/'all last week';...

Examples

(a) (kāna muḥammad māshiyan sabāhan/ (1.12)
'Mohammad was walking in the morning.'

(b) /kāna lmudarrisu māshiyan 9indamā ra?aytuhu bil?ams/ (1.54)
'The teacher was walking when I saw him yesterday.'

(c) /?innahu kāna jālis bilḥadīqa 9indamā marartu 9alā dārihi bil?ams/ (2.71)
'He was sitting in the garden when I passed by his house yesterday.'

(d) /kāna salīm marīd: tuwāla l?usbū9i lmādi/ (2.95)
'Salīm was not feeling well all last week.'

(e) /kāna nabīl musāfir ?ilā landan yawma ?ams/ (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 lmāḍī/'last year';...

Examples

(a) /law kāna dāris fi 19āmi lmāḍī 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 māshiyan qabla ?an yusāfir/
'Zayd was walking before he travelled.' (1.47)

(b) /kāna 9alyyun māshiyan qabla ?an yusāfir bissayyāra/
'Ali was walking before he travelled by the car.' (1.50)
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 māshiyan 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 kānā muntahīya l?ān lawlā ?as?ilatu lhādirīna lkhāfīra/ (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 takharrujīhi/'after his graduation';...

Examples

(a) /qāla bi?annahu kānā musāfīr ba9da
takharrujī hi lawlā wafāt wālidī hi  
(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 ?adkhulu ?ilā ghurfatihi/
'when I enter his room'; /šabāḥan/'in the morning'; /masā?an/'in the evening';...

Examples

(a) /9indamā ?adkhulu ?ilā ghurfatihi yakūnu yaktub/  
(1.8)
'When(ever) I enter his room, he is writ(ing).'

(b) /yakūnu ?akhi yaktub šabāḥan/  
(1.10)
'My brother is writ(ing) in the morning(s).'

(c) /yakūnu zaydun yaktub masā?an/  
(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: /l?ān/'now'; /fi mithli hādha lwaqti/
    'at such a time';...

Examples
(a) /yakūnu yaktub l?ān/                      (1.9)
    'He (will) be writ(ing) now.'
(b) /yakūnu zayd yaktub darsahu l?ān/        (1.48)
    'Zayd (will) be writ(ing) his lesson now.'
(c) /qādatan yakūnu ?ahmad 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 ?an yusāfir/'before he travels';...

   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).'  

2. To refer to an Action/State Tentatively Going on
   After an Unspecified Point of Time
   Frequency: 4 + None
Adverbials: /ba9da 19ishä?/ 'after supper';
/ba9da ttakärrij/ 'after graduation';...

Examples
(a) /yakünu ba9da 19ishä? yaktub qisâa/ (1.18)
   'He (will) be writ(ing) a novel after supper.'
(b) /yakünu kullu ṭālib ba9da ttakärrij yaktub
    mu'allafât qâyyima/ (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: /9indamä yunhi ʔimtiḥânahu/ 'when he
   finishes his examination'; /fi 19âmi
   lqâdîm/ 'next year'; /9inda dihiḥâbinâ
   ghâdan/ 'when we go tomorrow'; /ṭuwâla
   yawmi lghâd/ 'all day tomorrow';...

Examples
(a) /yakûnu ʔaḥmad yaktub fi ghurfatîhi 9indamâ
    yunhi ʔimtiḥânahu/ (1.20)
   'Ahmad (will) be writ(ing) in his room when
    he finishes his examination.'
(b) /huwa yakûnu yaktub fi 19âmi lqâdîm/ (1.33)
   'He (will) be writ(ing) next year.'
(c) /ʔa9taqîdu ʔannanâ lan najid-ḥu bilbayti
    9inda dihiḥâbinâ ghâdan liʔannahu sayakûnu
yaqra? fi lmaktabā ḥīnadāk/ (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? ṭuwaša 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 yuṣāfir/;...
Examples
(a) /yakūnu ilwaladu yaktub qabla ?an yuṣāfir/ (1.1)
'The boy is (usually) writ(ing) before he travels.'
(b) /qabla ?an yuṣāfir yakūnu yaktub/ (1.11)
'Before he travels, he is (usually) writ(ing).'</n
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 litālabatihī/ (1.34)
'After graduation, the teacher (will) be writ(ing) whatever he finds useful to his pupils.'
(b) /yakûnu 9alîyyun yaktub ba9da ttakharruj mä yashâ? fi jjarâ?id/ (1.49)
'Ali (will) be writ(ing) whatever he likes in the newspapers after graduation.'

CONTINUOUS PAST : /kâna yaf9al/

(A) Systematic Functions

1. To indicate Duration in the Past

Frequency: 46 + 78
Adverbials: /bil?ams/'yesterday'; /tuwäla yawmi ?ams/'all day yesterday';...

Examples
(a) /kâna farîd yaktub bil?ams/ (1.47)
'Farid was writ(ing) yesterday.'

(b) /?ana kuntu ?aktub risâla 9indamâ nqata9a ttayyâru lkahrabä?i fi llayla lmâdiya/ (2.80)
'I was writ(ing) a letter when there was a power-cut last night.'

(c) /kâna salîm yadrus fi lmaktâba tuwäla yawmi ?ams/ (2.85)
'Salîm 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?än/'now';...
Examples

(a) /kāna 1waladu yaktub ddarsa 1ʔān/ (1.1)
'The boy was writ(ing) the lesson now.'

(b) /kāna ttilmīdhu yaktub 1ʔān/ (1.37)
'The pupil was writ(ing) now.'

3. To indicate Frequency in the Past

Frequency: 1 + 44
Adverbials: /sābiqan/'before'; /kulla ?usbū9 9indamā kāna shābban/'every week when he was young';...

Examples

(a) /kāna ?akhi yaktub shshī9ra sābiqan/ (1.4)
'My brother was writ(ing) poetry before.'

(b) /?abi kāna yadhhab ?ila ssīnama kulla ?usbū9 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 lmdī/'last year';...

Examples

(a) /law kāna yadrus jayyidan fi l9āmi lmdī lāmā 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 takharrujīhi/'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 takharrujīhi/ (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: /lān/'now';...
Examples

(a) /qāla bi?anna lmūḥāḍara kānat tantahi l7ān 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 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: /masā?an/'in the evening'; /ghadan/ 'tomorrow'; /9inda dhihābinā ghadan/
'when we go tomorrow'; /tuwāla yawmi ghad/'all day tomorrow'; ...

Examples

(a) /sayakūnu zaydun yaqra?u ddarsa masā?an/ (1.15)
   'Zayd will be reading) the lesson in the evening.'

(b) /?ahmad sayakūnu yaqra? ghadan/ (1.40)
   'Ahmad will be read(ing) tomorrow.'

(c) /zayd sayakūnu yaqra? fi lmaktaba tuwāla
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yawmi ghad/  
'Zayd will be read(ing) in the library all day tomorrow.'

(d) /?a9taqidu ?annanā lan nājīd-hu bilbayti 9inda dhihābinā ghadan li?annahu sayakūnu yaqra? fi lmaktaba ḫīnadhāk/  
'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 yawn/'everyday';...

Examples
(a) /sayakūnu yaqra? fi kitābīhi kulla yawn/  
'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 ?an yuṣāfîr/'before he travels';...

Examples
(a) /sayakūnu ?akhi yaqra? qabla ?an yuṣāfîr/  
'My brother will be read(ing) before he travels.'
(b) /sayakūnu zaydun yaqra? qabla ?an yusāfir/  
'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 1?adab min jadīd ba9da  
ttakharruj/  
'He will be re-read(ing) the literature  
after graduation.'  
(b) /sayakūnu ūttālib yaqra? ba9da lmasā?/ (1.37)  
'The pupil will be read(ing) later in the  
evening.'  
(c) /sayakūnu 9aliyyun ba9da ttakharruj yaqra?  
turātha 19arab/  
'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/  
'He will be read(ing) now.'
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(b) /sayakūnu 9aliyyun yaqra? lmuḥāḍara lyawm/  
'Ali will be read(ing) the lecture today.'  
(1.27)

(c) /sayakūnu 1khaṭīb yaqra?u lʔān/  
'The preacher will be read(ing) now.'  
(1.44)

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 bilʔams/'when I saw 
               him yesterday'; /ba9da ?an taraknāhu/ 
               'after we left him'; ...

Examples

(a) /kāna ḥusayn sayakūnu yaktubu ddarsa 9indamā 
   ra?aytuhu bilʔams/  
   'Hussein would be writ(ing) his lesson when 
   I saw him yesterday.'  
   (1.15)

(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/  
   'After we left him, he would be writ(ing) a 
   letter to his father.'  
   (1.63)
2. **To indicate a Hypothetical Action/State Going on at Post-Past**

**Frequency:** 3 + None

**Adverbials:** /ba9da ttakharruj/'after graduation'; /ba9da dhihäbi sahibatihi/'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 țarîf sayakūnu yaktub risāla ba9da dhihäbi sahibatihi/ (1.65)

'Tarîf 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:** /šabāḥan/'in the morning'; /fi lmasā?/ 'in the evening';...

**Examples**

(a) /kāna muḥammad sayakūnu yaktub šabāḥan law ?anna ?ahadan ?ayqașahu/ (1.10)

'Mohammad would have (been) writ(ing) in the morning if someone had awakened him.'
(b) /kāna sayakūnu yaktub farḍah fi lmasā? law
lam yughālibhu nnu9ās/  
(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 9aliyyun sayakūnu yaktub qabla ?an
yusāfir/  
(1.12)
'Ali would have (been) writ(ing) before he
travelled.'
(b) /kāna țṭālib 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: /ba9da l?ān/'after now';...
Examples
(a) /kāna sayakūnu yaktub shshi9ra ba9da 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 ttālib sayakūnu yaktub rrisāla qabla ?an yusāfir/ (1.48)
'The student would have (been) writ(ing)
the letter before he travelled.'  İn the future
(b) /kāna sayakūnu yaktubu lkitāb qabla safarihi
law lam taḥulla 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 ?uṭrūḥatahu ba9da ttakharruj lawlā lidtirābi ssīhhi lladhi ?aṣābah/ (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: /l?ān/ 'now';...

Examples

(a) /kāna sayakūnu yaktub l?ān/ (1.43)

'He would have (been) writ(ing) now.'

(b) /lawlā lḥādithi ẓṭāri? lakāna zayd sayakūnu yaktub mufakkiratahu l?ān/ (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 ʃṣabāḥ/ 'in the morning'; /qabla ?an ṭadḥhab litawdīĩihi/ 'before I go to see him off'; /fi l9idlī ʃqādim/ 'next feast'; /ghadān/ 'tomorrow';...
Examples

(a) /sayakūnu ?akhi sāfar fi ṣṣābāḥ/ (1.1)
'My brother will have travelled by the morning.'

(b) /?attālibu sayakūnu sāfar qabla ?an ?adhhab · litawdīqihi/ (1.3)
'The student will have travelled before I go to see him off.'

(c) /fi 19īdi lqādim sayakūnu sāfar / (1.20)
'By next feast, he will have travelled.'

(d) /sayakūnu sāfar ghadan/ (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 ?ila 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 9indamā nadhhabu liziyarət ?ahlihi 9ashiyyata lyawm/ (1.64)
'He will have travelled by the time we go to visit his family this evening.'
(B) Non-Systematic Functions

1. To indicate a Tentative Action/State at Recent Past

Frequency: 6 + None

Adverbials: /lʔān/'now';...

Examples

(a) /lʔān sayakūnu 9aliyyun qad sāfar ?ilā
    baghdād/ (1.27)
    'Ali will have travelled to Baghdad by now.'

(b) /sayakūnu ?akhi sāfar lʔān/ (1.44)
    'My brother will have travelled by now.'

(c) /zaki sayakūnu sāfar ?ilā lqāhiṣa 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 + 1

Adverbials: /lʔān/'now';...

Examples

(a) /qāla bi?anna lmūḥādara satakūnu ntahat lʔān
    lawlā ?as?ilatu lḥādirīna 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'; /masā?an/'in the evening'; /fi dhālika lwaqt/'at that time'; /9indamā taraktuhu bil?ams... 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.'

(b) /kāna ְţţālibu sayakūnu sāfar masā?an/ (1.37)
'The student would have went in the evening.'

(c) /kāna ?ahmad sayakūnu sāfar fi dhālika lwaqt/ (1.53)
'Ahmad would have travelled by that time.'

(d) /9indamā taraktuhu bil?ams, kāna sayakūnu katab risāla ?ilā wālidīhi ba9da qalīl. walākin yabdū ?annahu qad ghayyar ra?yah 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 tamṭura ssamā?/'before it rained'; /?amsi/'yesterday'; /ba9da takharrujahi/'after his graduation'; ...

Examples

(a) /kāna ẗṭālib sayakūnu sāfar qabla ?an tamṭura 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 takharrujahi lawlā wafāt wālidīhi/ (1.67) & (2.72)

'He said he would have travelled after his graduation but for the death of his father.'
(B) Non-Systematic Functions

1. To refer to a Hypothetical Action/State at Recent Past Frequency: 5 + None
Adverbials: /lān/'now'; /lyawma/'today';...

Examples
(a) /kāna muḥammad sayakūnu sāfar ʿila lbaṣra lān/
Mohammad would have travelled to Basrah by now.'

(b) /lawlā mā ḥadatha 9aṣra ʿams lakāna sayakūnu sāfar lyawm/
He would have travelled today but for what happened yesterday afternoon.'

(c) /kāna muḥammad sayakūnu sāfar lān lawlā taʾakhkhur maωḥid sayri lqūṭār/
Mohammad would have travelled by now but for the delay in the train departure.'

2. To refer to a Hypothetical Action/State at Future Frequency: 1 + None
Adverbials: /ghadan/'tomorrow';...

Examples
(a) /kāna ṭṭālib sayakūnu sāfar ghadan/
The student would have travelled by tomorrow.'
SIMULTANEOUS LATER-PRESENT: /sayakûn fa9il/

(A) Systematic Functions

1. To indicate Simultaneity between an Action/State and a Future Point/Period of Time

Frequency: 49 + 1

Adverbials: /fi ssâ9a lâ9ashira/'at ten o'clock';
/ghadan zuhran/'tomorrow at noon';
/ba9da sâ9a mina l?ân/'after an hour (from now); /laylan/'at night';...

Examples

(a) /satakûn nâ?ima fi ssâ9a lâ9ashira/ (1.2)
'She will be sleeping at ten o'clock.'

(b) /satakûn fâ?ima nâ?ima ghadan zuhran/ (1.20)
'Fatima will be sleeping tomorrow at noon.'

(c) /?ulfatât satakûn nâ?ima laylan/ (1.52)
'The girl will be sleeping at night.'

(d) /sayakûn salîm musâfir ?ilâ baghâd ghadan/ (2.77)
'Salîm 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: /llayla/'tonight';...

Examples

(a) /laylâ satakûn nâ?ima llayla/ (1.5)
'Layla will be sleeping tonight.'
(B) Non-Systematic Functions

1. To indicate Simultaneity with a Pre-future Point/Period of Time

Frequency: 1 + None

Adverbials: /qabla ?an tusāfir/'before she travels';...

Examples

(a) /qabla ?an tusāfir satakün nā?ima/ (1.23)
   'Before she travels, she will be sleeping.'

2. To indicate Simultaneity with a Post-Future Point/Period of Time

Frequency: 3 + 1

Adverbials: /ba9da zẓuhri/'in the afternoon';
   /ba9da lghurūb/'after sunset'; /ba9da
   nihāyati 1?imṭiḥān ghadan/'after the end of the examination tomorrow';...

Examples

(a) /zaynab satakün nā?ima ba9da zẓuhri/ (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 1?imṭiḥān ghadan/ (2.89)
   'Zeki will be going to the cinema with me after the examination tomorrow.'
3. To indicate a Tenative Action/State at Present or Near Future

Frequency: 7 + None

Adverbials: /l?än/ 'now';...

Examples
(a) /satakün ?ukhti nā?ima l?än/ (1.1)
   'My sister will be sleeping now.'
(b) /satakün hind nā?ima l?än/ (1.15)
   'Hind will be sleeping now.'
(c) /satakūnaṭṭifla nā?ima l?än 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


Examples
(a) /kāna Ŧṭīflu sayakūn nā?im fi šṣābāh/ (1.1)
   '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 wusūlihi/'after his arrival'; /ba9da qalīl/'after a while';...

Examples

(a) /kāna sayakūn nā?im ba9da wusūlihi lawlā ta?akhkhurihi/ (1.17)

'He would have (been) sleeping after his arrival but for his delay.'

(b) /kāna sayakūn nā?im ba9damā ra?aytuhu bil?ams/ (1.38)

'He would have (been) sleeping after I saw him yesterday.'

(c) /kāna saykūn nā?im ba9da qalīl lawlā ziyārat ?akhīhi/ (1.63)

'He would have (been) sleeping after a while but for his brother's visit.'
(B) Non-Systematic Functions

1. To indicate a Hypothetical Action/State at Simultaneous Present

   Frequency: 8 + None

   Adverbials: /lʔān/'now';...

   Examples

   (a) /kāna lwalad sayakūn nāʔim lʔān/ (1.11)
       'The boy would have (been) sleeping now.'

   (b) /kāna sayakūn nāʔim lʔān lawlā dđajja fi 1khārij/ (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 Future

   Frequency: 1 + None

   Adverbials: /ghadan/'tomorrow';...

   Examples

   (a) /kāna marwān sayakūn nāʔim ma9a mājida ghadan lawlā 9adam qabūliḥā/ (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 tensemes has been concluded, some general conclusions may now be made. The first is that the
above analysis on the functions of Arabic tensemes 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 tensemes and temporal adverbials of certain notional categories. This will lead us to the conclusion that any teaching approaches that present the learners with tensemes alone are inadequate and unrealistic.

Another conclusion that can be drawn here is that the above description of tensemes 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 tenseme and to the complementary distribution of
all tensemes 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 tensemes. 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 inventory 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 inventory 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 tensemes, on the other hand, is concluded to be seventeen: eight past tensemes and nine non-past ones. Sixteen of the seventeen tensemes are listed in the above detailed inventory. The seventeenth tenseme is /yakūnu sayafgāl/ 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, though comprehensive, is not exhaustive. By its very nature, any corpus cannot be complete. Some functions of some Arabic tensemes 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 tensemes.
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. 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

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2 M.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.  

(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." 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-

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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.

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 it 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) similarly distributed in the system of that language.\(^5\)

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

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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

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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,


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.\textsuperscript{11} Moreover, recent modifications introduced into the transformational model, especially those made by Lakoff, make deep structures extremely complex and abstract.\textsuperscript{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


is not taken to be of any consequence for the work of a comparative linguist.\footnote{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."\footnote{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.\footnote{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

\footnote{14}W.R. Lee, "Thoughts on Contrastive Linguistics...", 19th Annual Round Table, p.190.  
\footnote{15}These 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 tensemes 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 tensemes 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 pre-requisites 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

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16 Lado, Linguistics Across Culture, p.66.
The formal temporal markers of tensemes, 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 tensemes. Thus two tensemes 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 tensemes by the criterion of formal equivalence since it has been observed in the course of the present study that formally equivalent 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. To establish notional equivalence, the present contrastive analysis has resorted to contextual translation. If two or more tensemes could

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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 tensemes 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 tensemes while paying due attention to their deep structures and transformational rules. It compares the formal features of equivalent tensemes 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.
(A) Establishing Equivalence

As a starting point for the comparison between English and Arabic tensemes, the two sets of tensemes 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 tensemes. Hence the criterion of comparability here is the type(s) and number of temporal markers that formally exist in the tensemes of the two languages. Two tensemes will be considered as formally equivalent if they possess the same type and number of temporal markers. In the table below, English tensemes 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 tensemes in English, English tensemes 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 tensemes. The
descriptive label for each formally comparable pair is given in the third column as has been used in the description of the two concerned tensemes 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 1C5**

**FORMAL EQUIVALENCE BETWEEN ENGLISH AND ARABIC TENSEMES**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
<th>DESCRIPTIVE LABEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. writes</td>
<td>yaf9al</td>
<td>Basic Present</td>
</tr>
<tr>
<td>2. wrote</td>
<td>fa9al</td>
<td>Basic Past</td>
</tr>
<tr>
<td>3. has written</td>
<td>yakūnu fa9al</td>
<td>Earlier Present (Non-past)</td>
</tr>
<tr>
<td>4. had written</td>
<td>kāna fa9al</td>
<td>Earlier Past</td>
</tr>
<tr>
<td>5. will write</td>
<td>sayaf9al</td>
<td>Later Present</td>
</tr>
<tr>
<td>6. would write</td>
<td>kāna sayaf9al</td>
<td>Later Past</td>
</tr>
<tr>
<td>7. is writing</td>
<td>yakūnu fā9il</td>
<td>Simultaneous Present (Non-past)</td>
</tr>
<tr>
<td>8. was writing</td>
<td>kāna fā9il</td>
<td>Simultaneous Past</td>
</tr>
<tr>
<td>9. has been writing</td>
<td>-</td>
<td>Simultaneous Earlier Present</td>
</tr>
<tr>
<td>10. had been writing</td>
<td>-</td>
<td>Simultaneous Earlier Past</td>
</tr>
<tr>
<td>11. will be writing</td>
<td>sayakūnu fā9il</td>
<td>Simultaneous Later-Present</td>
</tr>
</tbody>
</table>

Contd...
Table 105 contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
<th>DESCRIPTIVE LABELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. would be writing</td>
<td>käna sayakūnu</td>
<td>Simultaneous Later-Past</td>
</tr>
<tr>
<td>13. will have written</td>
<td>sayakūnu fa9al</td>
<td>Pre-Later Present</td>
</tr>
<tr>
<td>14. would have written</td>
<td>käna sayakūnu</td>
<td>Pre-Later Past</td>
</tr>
<tr>
<td>15. will have been writing</td>
<td>-</td>
<td>Simultaneous Pre-Later Present</td>
</tr>
<tr>
<td>16. would have been writing</td>
<td>-</td>
<td>Simultaneous Pre-Later Past</td>
</tr>
<tr>
<td>17. -</td>
<td>yakūnu yaf9al</td>
<td>Continuous Non-Past</td>
</tr>
<tr>
<td>18. -</td>
<td>käna yaf9al</td>
<td>Continuous Past</td>
</tr>
<tr>
<td>19. -</td>
<td>sayakūnu yaf9al</td>
<td>Continuous Later-Present</td>
</tr>
<tr>
<td>20. -</td>
<td>käna sayakūnu yaf9al</td>
<td>Continuous Later-Past</td>
</tr>
</tbody>
</table>

A cursory look at Table 105 above reveals that four English tensemes, viz. tensemes number 9, 10, 15 and 16, do not have formal equivalents in Arabic. These tensemes 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 tensemes when learning English, and Arabic lacks formally equivalent tensemes. On the other hand, the four Arabic tensemes 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 tensemes prompts us to explore other avenues of comparison to gain more information that could be used to supplement that already presented by Table 105. 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. It has therefore been decided here to use the technique of translation to establish functional and temporal equivalence between English and Arabic tensemes. For this purpose, all English sentences in the general inventory of functions of English tensemes in Chapter Six of Part Two have been translated into Arabic. 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

3 See pages 755 - 756.
4 The 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 tensemes might have to be translated by different tensemes 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

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. writes</td>
<td>yaf9al</td>
</tr>
<tr>
<td>2. wrote</td>
<td>(a) fa9al, (b) kāna yaf9al</td>
</tr>
<tr>
<td>3. has written</td>
<td>(a) yakūnu fa9al, (b) fa9al</td>
</tr>
<tr>
<td>4. had written</td>
<td>(c) kāna yaf9al</td>
</tr>
<tr>
<td></td>
<td>kāna fa9al</td>
</tr>
</tbody>
</table>

contd...
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 tensemes 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 tensemes 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 tensemes in Table 106, it is important to point out that some common tensemes 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 tensemes 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 tensemes.
A few other sentences have also been set up to illustrate certain functions missing in the general inventories of tensemes 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 ?azürhu yakunu nā?im/

2. (a) When I met him last night, he was walking.
   (b) /gi?inama qā出席tu fi llayla lmādiya kāna mâshiyan/

3. (a) He had been sleeping for some time when I arrived.
   (b) /kāna nā?im liba9di lwaqti gi?inama wasaltu/

4. (a) I will be sleeping late next Sunday morning.

5. (a) She would be sleeping but for the noise.
   (b) /kāna tatakūnu nā?ima lawla ḥājja/

6. (a) He said that the train would have gone before she arrived at the station.
   (b) /qāla bi?anna lqiṭār sayakūnu dhahab qabla ?an tasila ?ila lmaḥatta/

7. (a) He would have been sleeping now but for the noise.
   (b) /kāna sayakūnu nā?im lān lawla ḍājja/

The above seven pairs of sentences, few as they may be, are adequate for our purposes to establish translation equivalence between the Arabic tensemes 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:

**ENGLISH**

1. is writing
2. was writing
3. had been writing
4. will be writing
5. would be writing
6. would have written
7. would have been writing

**ARABIC**

yakūnu fa9il
kāna fa9il
kāna fa9il
sayakūnu fa9il
kāna sayakūnu fa9il
sayakūnu fa9al
kāna sayakūnu fa9il

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**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. writes</td>
<td>yakūnu fa9al</td>
</tr>
<tr>
<td>2. wrote</td>
<td>(a) fa9al,</td>
</tr>
<tr>
<td></td>
<td>(b) kāna yaf9al</td>
</tr>
</tbody>
</table>

contd...
Table 107 contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. has written</td>
<td>(a) yakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>(b) fa9al</td>
</tr>
<tr>
<td></td>
<td>(c) kāna yaf9al</td>
</tr>
<tr>
<td>4. had written</td>
<td>kāna fa9al</td>
</tr>
<tr>
<td>5. will write</td>
<td>sayaf9al</td>
</tr>
<tr>
<td>6. would write</td>
<td>(a) kāna sayaf9al</td>
</tr>
<tr>
<td></td>
<td>(b) sayaf9al</td>
</tr>
<tr>
<td></td>
<td>(c) kāna yaf9al</td>
</tr>
<tr>
<td>7. is writing</td>
<td>(a) yakūnu fā9il</td>
</tr>
<tr>
<td></td>
<td>(b) yakūnu yaf9al</td>
</tr>
<tr>
<td></td>
<td>(c) yaf9al</td>
</tr>
<tr>
<td>8. was writing</td>
<td>(a) kāna fā9il</td>
</tr>
<tr>
<td></td>
<td>(b) kāna yaf9al</td>
</tr>
<tr>
<td>9. has been writing</td>
<td>(a) yakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>(b) yaf9al</td>
</tr>
<tr>
<td>10. had been writing</td>
<td>(a) kāna fā9il</td>
</tr>
<tr>
<td></td>
<td>(b) kāna yaf9al</td>
</tr>
<tr>
<td>11. will be writing</td>
<td>(a) sayakūnu fā9il</td>
</tr>
<tr>
<td></td>
<td>(b) sayakūnu yaf9al</td>
</tr>
<tr>
<td></td>
<td>(c) sayaf9al</td>
</tr>
<tr>
<td>12. would be writing</td>
<td>(a) kāna sayakūnu fā9il</td>
</tr>
<tr>
<td></td>
<td>(b) kāna sayakūnu yaf9al</td>
</tr>
</tbody>
</table>
**Table 107 contd.**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. will have written</td>
<td>(c) kāna sayaf9al</td>
</tr>
<tr>
<td></td>
<td>(d) sayaf9al</td>
</tr>
<tr>
<td></td>
<td>(e) kāna yaf9al</td>
</tr>
<tr>
<td>14. would have written</td>
<td>sayakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>(a) kāna sayakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>(b) sayakūnu fa9al</td>
</tr>
<tr>
<td>15. will have been writing</td>
<td>sayakūnu fa9al</td>
</tr>
<tr>
<td>16. would have been writing</td>
<td>(a) kāna sayakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>(b) kāna sayakūnu fā9il</td>
</tr>
<tr>
<td></td>
<td>(c) kāna sayakūnu yaf9al</td>
</tr>
</tbody>
</table>

(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.\(^5\)

\(^5\)Robert 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 \textit{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 tensemes \textit{writes}, \textit{is writing}, and \textit{has been writing}. An Arab could correctly use the same tenseme \textit{yaf9al} in any of the following three Arabic sentences, for example:

1. /\textit{huwa yaktubu shshi9ra}/
   
   (he write the poetry)
   
   'He \textbf{writes} poetry.'

2. /\textit{huwa yaktubu l?n}/
   
   (he write now)
   
   'He \textbf{is writing} now.'

3. /\textit{huwa yaktubu l?utr?ha mundhu sanatayn}/
   
   (he write the thesis for two years)
   
   'He \textbf{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 tensemes. 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 \textit{fa9al}, \textit{sycyaf9al},
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 fa9il. 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 tensemes 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 tensemes. 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 tensemes.
the chief objective of this process is the analysis of the contrastive tensemes as such. Thus, rather than indulge in unnecessary details, only rules relevant to the structures of the tensemes 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 tensemes 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 tensemes 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 fa9al, for example, appears in the following contrastive tables only when fa9al 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 functional equivalent 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 tenseme which it indicates and which is/are missing among the functions of the Arabic formal equivalent of that English tenseme. Blank unshaded squares are left under these functional equivalents opposite the functions of the English tenseme 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 tensemes in question. It is necessary to point out that this is mostly done in the tables when there are any condition factors, other than the function itself, that would require the use of one tenseme in Arabic but not the other. For example, both käna 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 tensemes 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 käna sayaf9al is used in main clauses only.  

7käna sayaf9al may still appear in subordinate clauses in Arabic but only to indicate hypotheticalness at later-past, as explained in more detailed on page 560.
In a limited number of other cases, however, two Arabic tensemees 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 tensemes with their Arabic equivalents:
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Form: writes</td>
<td>Form: yaf9al</td>
</tr>
<tr>
<td>(B) Example</td>
<td>Example</td>
</tr>
<tr>
<td>He speaks Arabic.</td>
<td>/huwa yatakallam 19arabiyya/</td>
</tr>
<tr>
<td>(C) Analysis</td>
<td>Analysis</td>
</tr>
<tr>
<td>$S \rightarrow NP + VP$</td>
<td>$S \rightarrow NP + VP$</td>
</tr>
<tr>
<td>$\rightarrow NP_1 + at\ present + V + NP_2$</td>
<td>$\rightarrow NP_1 + root + fi lhādir + NP_2$</td>
</tr>
<tr>
<td>$Taf \rightarrow NP_1 + V + at\ present + NP_2$</td>
<td>$Taf \rightarrow NP_1 + root + fi lhādir + NP_2$</td>
</tr>
<tr>
<td>$\Rightarrow he + speak + \emptyset_1 + \text{Arabic}$</td>
<td>$\Rightarrow huwa + KLM + P_1 + 19arabiyya$</td>
</tr>
<tr>
<td>$\Rightarrow he\ speaks\ Arabic$</td>
<td>$\Rightarrow huwa yatakallam 19arabiyya$</td>
</tr>
<tr>
<td>(D) Formal Features</td>
<td>Formal Features</td>
</tr>
<tr>
<td>1. Presence of non-past tense marker</td>
<td>1. Presence of non-past tense marker</td>
</tr>
<tr>
<td>2. Presence of 's' when the subject is a third person singular$^9$</td>
<td>2. Presence of a pronominal subject prefix$^9$</td>
</tr>
</tbody>
</table>

$^9$These features are common to all English and Arabic non-past (present) tenses. Hence they are to be regarded as contrastive features of all non-past English and Arabic tenses and will not therefore be repeated in the remaining contrastive tables.
Table 108A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. The verb is obligatorily preceded by a subject.¹⁰</td>
<td>3. Optionally preceded or followed by a subject.¹⁰</td>
</tr>
</tbody>
</table>

**TABLE 106B**

FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>writes</td>
<td>yaf9al</td>
</tr>
<tr>
<td><strong>To indicate</strong></td>
<td><strong>To indicate</strong></td>
</tr>
<tr>
<td>1. Simultaneous Present</td>
<td>Simultaneous Present</td>
</tr>
<tr>
<td>2. Contemporaneous Present</td>
<td>Contemporaneous Present</td>
</tr>
<tr>
<td>3. Current Habit</td>
<td>Current Habit</td>
</tr>
<tr>
<td>4. General Fact</td>
<td>General Fact</td>
</tr>
<tr>
<td>5. Future Time</td>
<td>Future Time</td>
</tr>
</tbody>
</table>

¹⁰These contrastive features are found in all English and Arabic tensemes and are therefore not repeated in the following contrastive tables.
Table 108B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>writes</td>
<td>yafgal</td>
</tr>
<tr>
<td>6. Pre-Future</td>
<td>Pre-Future</td>
</tr>
<tr>
<td>7. Post-Future</td>
<td>Post-Future</td>
</tr>
<tr>
<td>8. Duration in the Future(^\text{11})</td>
<td>Duration in the Future</td>
</tr>
<tr>
<td>9. An Activity Continuing up to Simultaneous Present</td>
<td></td>
</tr>
<tr>
<td>10. Past Time (after some Negative Particles)</td>
<td></td>
</tr>
</tbody>
</table>

\(^\text{11}\)This 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
ORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A) Form:</strong> wrote</td>
<td><strong>Form:</strong> I. fa9al</td>
</tr>
<tr>
<td></td>
<td>II. kāna yaf9al</td>
</tr>
<tr>
<td><strong>(B) Examples</strong></td>
<td><strong>Examples</strong></td>
</tr>
<tr>
<td>I. He <strong>arrived</strong> yesterday.</td>
<td>I. /huwa waṣal bil?ams/</td>
</tr>
<tr>
<td>II. He <strong>went</strong> everyday.</td>
<td>II. /huwa kāna yadhhab kulla yawm/</td>
</tr>
<tr>
<td><strong>(C) Analysis</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td>I. S $\rightarrow$ NP + VP</td>
<td>I. S $\rightarrow$ NP + VP</td>
</tr>
<tr>
<td>$\rightarrow$ NP + in the past + V + Adv</td>
<td>$\rightarrow$ NP + bilmādi+ root + Adv</td>
</tr>
<tr>
<td>Taf $\rightarrow$ NP + V + in the past + Adv</td>
<td>Taf $\rightarrow$ NP + root + bilmādi + Adv</td>
</tr>
<tr>
<td>$\rightarrow$ he + arrive + D₁ + yesterday</td>
<td>$\rightarrow$ huwa + WSL + D₁ + bil?ams</td>
</tr>
<tr>
<td>$\rightarrow$ he arrived yesterday</td>
<td>$\rightarrow$ huwa waṣal bil?ams</td>
</tr>
<tr>
<td>II.</td>
<td>II. S $\rightarrow$ NP + VP</td>
</tr>
<tr>
<td></td>
<td>$\rightarrow$ NP + bilmādi + lā sābiqan + root + Adv</td>
</tr>
</tbody>
</table>

*contd...*
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D)Formal Features</td>
<td>Formal Features</td>
</tr>
<tr>
<td>I. 1. past-tense marker</td>
<td>I. 1. past-tense marker</td>
</tr>
<tr>
<td>II. 1. past-tense marker</td>
<td>II. 1. past-tense marker</td>
</tr>
<tr>
<td>2. no aspect marker</td>
<td>2. presence of non-earlier aspect marker</td>
</tr>
<tr>
<td>3. no tense carrier</td>
<td>3. presence of tense carrier</td>
</tr>
<tr>
<td>Tcar → NP+bilmādi+ KWN + lā sābiqan + root + Adv +</td>
<td>→ NP + KWN + D₁ + DHHB + P₂ + Adv</td>
</tr>
<tr>
<td>Taf → NP + KWN +bilmādi + root + lā sābiqan + Adv</td>
<td>→ huwa kāna yadhhab kulla yawn</td>
</tr>
</tbody>
</table>
### TABLE 109B
#### FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>wrote</td>
<td>fa9al</td>
</tr>
</tbody>
</table>

**To indicate**

1. **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

5. **Post-past**
   - Post-past

6. **Pre-past**
   - Pre-past
   - Duration at Pre-past

contd...
Table 109B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>wrote</td>
<td>fağal</td>
</tr>
<tr>
<td></td>
<td>kāna yafğal</td>
</tr>
</tbody>
</table>

7. Tentative Future (with if)  A Future Time (after ẓidhā 'if')

8. Past Activity
   Continuing up to Simultaneous Present

9. Hypothetical Past (with law 'if')

TABLE 110A

FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Form: I. yakūnu fağal</td>
</tr>
<tr>
<td></td>
<td>II. fağal</td>
</tr>
<tr>
<td></td>
<td>III. kāna yafğal</td>
</tr>
</tbody>
</table>

(B) Examples

Examples

contd...
Table 110A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. By nine every morning, I usually have gone to the University. 12</td>
<td>I. /fi ttāsi9a kullā šabāh ?ana ?akūnu dhahabtu ?ila jjāmi9a 9ādatan/12</td>
</tr>
<tr>
<td>II. I have seen this film before.</td>
<td>II. /?ana ra?aytu hādha lfilim min qablu/</td>
</tr>
<tr>
<td>III. I have gone regularly.</td>
<td>III. /?ana kuntu ?adhhab bintizām/</td>
</tr>
</tbody>
</table>

(C)Analysis

I. S→ NP + VP
   → NP + at present+ earlier + V + Advt
Tcar→ NP + at present+ HAVE + earlier + V + Advt
Taf→ NP + HAVE + at present + V + earlier + Advt
   → NP + HAVE + Ø₁ + go + D₂ + Advt

Analysis

I. S→ NP + VP
   → NP+fi lhādir + sābiqan + root + Advt
Tcar→ NP + fi lhādir + KWN + sābiqan + root + Advt
Taf→ NP + KWN + fi lhādir + root + sābiqan + Advt
   → NP + KWN + P₁ + DHHB + D₂ + Advt

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>
<thead>
<tr>
<th>English</th>
<th>Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have gone by nine o'clock</td>
<td>?ana ?akūnu</td>
</tr>
<tr>
<td>every morning</td>
<td>dhahabtu fi ttāsi9a</td>
</tr>
<tr>
<td></td>
<td>kulla sabāh</td>
</tr>
</tbody>
</table>

**II.**

**ENGLISH→**

I. NP + VP

II. S→ NP + VP

→ NP₁ + bilmādi +

root + NP₂ + Advt

Taf→ NP₁ + root +

bilmādi + NP₂ + Advt

→ NP₁ + R?Y + D₁ +

NP₂ + Advt

→ ?ana ra?aytu hādha

lfilim min qablu

**III.**

III. S→ NP + VP

→ NP + bilmādi + lā

sābiqan + root + Advt

Tcar→ NP + bilmādi + KWN+

lā sābiqan + root +

Advt

Taf→ NP + KWN + bilmādi+

root + lā sābiqan +

Advt

→ NP + KWN + D₁ +

DHHB + P₂ + Advt

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D)Formal Features</td>
<td>Formal Features</td>
</tr>
<tr>
<td>2. Earlier-aspect marker</td>
<td>2. Earlier-aspect marker</td>
</tr>
<tr>
<td>II. 1. Non-past tense-marker</td>
<td>II. 1. Past tense-marker</td>
</tr>
<tr>
<td>2. Earlier-aspect marker</td>
<td>2. No aspect marker</td>
</tr>
<tr>
<td>III. 1. Non-past tense-marker</td>
<td>III. 1. Past-tense marker</td>
</tr>
<tr>
<td>2. Earlier-aspect marker</td>
<td>2. Non-earlier aspect marker</td>
</tr>
</tbody>
</table>

?ana kuntu ?adhhab bintizām
## Table 110B
### Functional Comparison

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>has written</td>
<td>yakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>fa9al</td>
</tr>
<tr>
<td></td>
<td>kāna fa9al</td>
</tr>
<tr>
<td><strong>To indicate</strong></td>
<td></td>
</tr>
<tr>
<td>1. Unspecific</td>
<td>Tentative</td>
</tr>
<tr>
<td>Earlier Present</td>
<td>Past</td>
</tr>
<tr>
<td></td>
<td>Past</td>
</tr>
<tr>
<td>2. Unspecific</td>
<td>Tentative</td>
</tr>
<tr>
<td>Recent Earlier</td>
<td>Recent Past</td>
</tr>
<tr>
<td>Present</td>
<td>Past</td>
</tr>
<tr>
<td>3. Frequency at</td>
<td></td>
</tr>
<tr>
<td>Earlier Present</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency in the Past</td>
</tr>
<tr>
<td>4. Unspecific</td>
<td></td>
</tr>
<tr>
<td>Post-past</td>
<td>Post-past</td>
</tr>
<tr>
<td>5. Unspecific Pre-</td>
<td>Tentative</td>
</tr>
<tr>
<td>Future (with</td>
<td>Pre-past</td>
</tr>
<tr>
<td>temporal</td>
<td></td>
</tr>
<tr>
<td>conjunctions)</td>
<td></td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>has written</td>
<td>yakūnu fa9al</td>
</tr>
<tr>
<td>6. Simultaneous Perceivable Activity</td>
<td>fa9al</td>
</tr>
<tr>
<td></td>
<td>kāna fa9al</td>
</tr>
<tr>
<td></td>
<td>Past Activity Continuing up to Simultaneous Present</td>
</tr>
<tr>
<td>7. Habitual Action Earlier than a Point at Non-past(^1)</td>
<td>Habitual Action Earlier than an Unspecified Point</td>
</tr>
<tr>
<td>8. (Tentative) Pre-past</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)This 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**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Form: had written</td>
<td>Form: kāna faqal</td>
</tr>
<tr>
<td>(B) Example</td>
<td>Example</td>
</tr>
<tr>
<td>She had left before then.</td>
<td>/hiya kānat ghādarat qabla dhālika lwaqti/</td>
</tr>
<tr>
<td>(C) Analysis</td>
<td>Analysis</td>
</tr>
</tbody>
</table>

\[
S \rightarrow NP + VP
\]

\[
\rightarrow NP + \text{in the past} + \text{earlier} + V + \text{Advt}
\]

\[
\text{Tcar} \rightarrow NP + \text{HAVE} + \text{earlier} + V + \text{Advt}
\]

\[
\text{Taf} \rightarrow NP + \text{HAVE} + \text{in the past} + V + \text{earlier} + \text{Advt}
\]

\[
\rightarrow NP + \text{HAVE} + D_1 + \text{leave} + D_2 + \text{Advt}
\]

\[
\rightarrow \text{she had left before then}
\]

<table>
<thead>
<tr>
<th>(D) Formal Features</th>
<th>Formal Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Past-tense marker</td>
<td>1. Past-tense marker</td>
</tr>
<tr>
<td>2. Earlier-aspect marker</td>
<td>2. Earlier-aspect marker</td>
</tr>
</tbody>
</table>
## TABLE IIIB
### FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>had written</td>
<td>kāna fa9al</td>
</tr>
</tbody>
</table>

1. **To indicate**
   - **Pre-past**
   - Pre-past

2. **Hypothetical Past** *(with if)*
   - Hypothetical Past *(with law or lawlā)*

3. **General Past**

4. **Specific Past**

5. **Duration in the Past**

6. **Hypothetical Simultaneous Present** *(with lawlā)*
### TABLE 112A

#### FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Form: will write</td>
<td>Form: sayaf9al</td>
</tr>
<tr>
<td>(B) Example</td>
<td>Example</td>
</tr>
<tr>
<td>Layla will travel tomorrow.</td>
<td>/laylā sayaf9al ghadan/</td>
</tr>
<tr>
<td>(C) Analysis</td>
<td>Analysis</td>
</tr>
<tr>
<td>S → NP + VP</td>
<td>S → NP + VP</td>
</tr>
<tr>
<td>→ NP + at present + later + V + Advt</td>
<td>→ NP + fi lāhādir + lāhiqan + root + Advt</td>
</tr>
<tr>
<td>Tcār → NP + at present + WILL + non-earlier + V + Advt</td>
<td>Taf → NP + fi lāhādir + root + lāhiqan + Advt</td>
</tr>
<tr>
<td>Taf → NP + WILL + at present + V + non-earlier + Advt</td>
<td>Taf → NP + root + fi lāhādir + lāhiqan + Advt</td>
</tr>
<tr>
<td>→ NP + WILL + φ₁ + travel + φ₂ + Advt</td>
<td>→ NP + SFR + P₁ + P₂ + Advt</td>
</tr>
<tr>
<td>→ Layla will travel tomorrow</td>
<td>→ laylā sayaf9al ghadan</td>
</tr>
<tr>
<td>(D) Formal Features</td>
<td>Formal Features</td>
</tr>
<tr>
<td>1. Non-past tense marker</td>
<td>1. Non-past tense marker</td>
</tr>
<tr>
<td>2. Later aspect marker</td>
<td>2. Later aspect marker</td>
</tr>
</tbody>
</table>
TABLE 112B

FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>will write</td>
<td>sayaf9al</td>
</tr>
<tr>
<td>To indicate</td>
<td></td>
</tr>
<tr>
<td>1. Specific Future</td>
<td>Future Time</td>
</tr>
<tr>
<td>2. Unspecific Future</td>
<td>Future Time</td>
</tr>
<tr>
<td>3. Post-future</td>
<td>Post-future</td>
</tr>
<tr>
<td>4. Pre-future</td>
<td>Pre-future</td>
</tr>
<tr>
<td>5. Duration in the</td>
<td>Duration in the Future</td>
</tr>
<tr>
<td>Future(^{14})</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Hypothetical Future</td>
</tr>
<tr>
<td></td>
<td>(with lawlā)</td>
</tr>
<tr>
<td>7.</td>
<td>Intended Later-past</td>
</tr>
<tr>
<td></td>
<td>(in Subordinate Clauses)</td>
</tr>
</tbody>
</table>

\(^{14}\)This 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

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) <strong>Form:</strong> <em>would write</em></td>
<td><strong>Form:</strong> I. kāna sayaf9al</td>
</tr>
<tr>
<td></td>
<td>II. sayaf9al</td>
</tr>
<tr>
<td></td>
<td>III. kāna yaf9al</td>
</tr>
<tr>
<td></td>
<td><strong>Examples</strong></td>
</tr>
<tr>
<td>I. He <em>would travel</em> the next morning.</td>
<td>I. /huwa kāna sayusāfir</td>
</tr>
<tr>
<td></td>
<td>fi šabāhi lyawmi ttālī/</td>
</tr>
<tr>
<td>II. He said Layla <em>would travel</em> the next morning.</td>
<td>II. /qāla bi?anna laylā</td>
</tr>
<tr>
<td></td>
<td>satusāfir fi šabāhi</td>
</tr>
<tr>
<td></td>
<td>lyawmi ttālī/</td>
</tr>
<tr>
<td>III. He <em>would go there</em> every summer.</td>
<td>III. /huwa kāna yadhhab hunāk</td>
</tr>
<tr>
<td></td>
<td>kulla sayf/</td>
</tr>
<tr>
<td>(B) <strong>Examples</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td>I. He <em>would travel</em> the next morning.</td>
<td>I. S → NP + VP</td>
</tr>
<tr>
<td></td>
<td>→ NP + in the</td>
</tr>
<tr>
<td></td>
<td>→ NP + later+</td>
</tr>
<tr>
<td></td>
<td>V + Advt</td>
</tr>
<tr>
<td>II. He said Layla <em>would travel</em> the next morning.</td>
<td>Tcar → NP + in the</td>
</tr>
<tr>
<td></td>
<td>→ NP + WILL +</td>
</tr>
<tr>
<td></td>
<td>→ non-earlier +</td>
</tr>
<tr>
<td></td>
<td>V + Advt</td>
</tr>
<tr>
<td>III. He <em>would go there</em> every summer.</td>
<td></td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taf→ NP + WILL + in the past + V + non-earlier + Advt</td>
<td>Taf→ NP + KWN + bilmādi + root + lāhiqan + Advt</td>
</tr>
<tr>
<td>→ NP + WILL + D₁ + travel/+ Advt</td>
<td>→ huwa + KWN + D₁ + SFR + P₂+ +Advt</td>
</tr>
<tr>
<td>→ he would travel the next morning</td>
<td>→ huwa kāna sayusāfir fi sabāhi lyawmi ttāli</td>
</tr>
<tr>
<td>II.</td>
<td>II. S→ NP + VP</td>
</tr>
<tr>
<td></td>
<td>NP + fi lhādir + lāhiqan + root + Advt</td>
</tr>
<tr>
<td></td>
<td>Taf→ NP + fi lhādir + root+ lāhiqan+Advt</td>
</tr>
<tr>
<td></td>
<td>Taf→ NP + root+ fi lhādir + lāhiqan + Advt</td>
</tr>
<tr>
<td></td>
<td>→ NP + SFR + P₁ + P₂+ + Advt</td>
</tr>
<tr>
<td></td>
<td>→ ... laylā satusāfir fi sabāhi lyawmi ttāli</td>
</tr>
</tbody>
</table>

contd...
### Table 113A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>III.</td>
<td>III. S→ NP + VP</td>
</tr>
<tr>
<td></td>
<td>→ NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>→ NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>KWN + lā sābiqan + root + Advt</td>
</tr>
<tr>
<td></td>
<td>Tcar→ NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>KWN + lā sābiqan + root + Advt</td>
</tr>
<tr>
<td></td>
<td>Taf→ NP + KWN + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>root + lā sābiqan + Advt</td>
</tr>
<tr>
<td></td>
<td>→ NP + KWN + D₁ +</td>
</tr>
<tr>
<td></td>
<td>DHHB + P₂ + Advt</td>
</tr>
<tr>
<td></td>
<td>→ huwa kāna yadhhab kulla sayf</td>
</tr>
</tbody>
</table>

(D)Formal Features

- I.1. Past-tense marker
- 2. Later-aspect marker
- 3. Presence of tense-carrier

Formal Features

- I.1. Past-tense marker
- 2. Later-aspect marker
- 3. Presence of tense-carrier

II.1. Non-past tense marker

- 2. Later-aspect marker
- 3. Absence of tense-carrier

III.1. Past-tense marker

- 2. Later-aspect marker
- 3. Presence of tense-carrier
### TABLE 113B

#### FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>would write</td>
<td>kāna sayaf9al</td>
</tr>
<tr>
<td>To indicate</td>
<td></td>
</tr>
<tr>
<td>1. Intended</td>
<td>Intended</td>
</tr>
<tr>
<td>Later-past</td>
<td>Later-past</td>
</tr>
<tr>
<td>2. Tentative</td>
<td>Future Time</td>
</tr>
<tr>
<td>Future Time</td>
<td></td>
</tr>
<tr>
<td>3. Hypothetical</td>
<td>Hypothetical Future (with lawlā)</td>
</tr>
<tr>
<td>Future</td>
<td></td>
</tr>
<tr>
<td>4. Past Habit</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Hypothetical Post-past (with lawlā)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Tentative Past</td>
</tr>
</tbody>
</table>

contd...
Table 113B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>would write</td>
<td>käna sayaf9al</td>
<td>sayaf9al</td>
<td>käna yaf9al</td>
</tr>
<tr>
<td>7.</td>
<td>Hypothetical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Past (with lawlā)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Hypothetical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Hypothetical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-future</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Hypothetical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Simultaneous or Contemporaneous Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Hypothetical</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-future</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 114A

#### FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
</table>
| **(A) Form:** is writing | **Form:** I. yakūnu fa9il  
  II. yakūnu yaf9al  
  III. yaf9al |
| **(B) Examples** | **Examples** |
| I. He is sleeping whenever I visit him. | I. /huwa yakūnu nā?im  
  kullamā ?azürhu/ |
| II. She is reading whenever we see her. | II. /hiya takūnu taqra?  
  kullamā narāha/ |
| III. He is reading now. | III. /huwa yaqra? lān/ |
| **(C) Analysis** | **Analysis** |
| I. \( S \rightarrow NP + VP \) | I. \( S \rightarrow NP + VP \) |
| \( \rightarrow NP + at \) | \( \rightarrow NP + fi \ḥādir + \) |
| \( \text{present} + \) | \( ?āniyyan + \) |
| \( \text{simultaneously} + V \) | \( \text{root} \) |
| Tcar\( \rightarrow NP + at \) | Tcar\( \rightarrow NP + fi \ḥādir + \) |
| \( \text{present} + \) | \( \text{KWN} + ?āniyyan + \) |
| \( \text{BE} + \) | \( \text{root} \) |
| simultaneously | \( \text{root} \) |
| \( + V \) | \( \text{root} \) |
| Taf\( \rightarrow NP + BE + at \) | Taf\( \rightarrow NP + KWN + fi \) |
| \( \text{present} + V + \) | \( \ḥādir + \) |
| simultaneously | \( ?āniyyan \) |

contd...
Table 11 continued.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ NP + BE + $\emptyset_1$ + sleep + N  → NP + KWN + $P_1$ + NWM + $P_2\emptyset$  → he is sleeping  → huwa yakūnu nā?im ...</td>
<td></td>
</tr>
<tr>
<td>II.</td>
<td>II. S → NP + VP ...  → NP + $fi$ lhādir + lā sābiqan + root  → Tcar → NP + $fi$ lhādir + KWN + lā sābiqan + root  → Taf → NP + KWN + $fi$ lhādir + root + lā sābiqan  → NP + KWN + $P_1$ + QR? + $P_2$  → hiya takūnu taqra?</td>
</tr>
<tr>
<td>III.</td>
<td>III. S → NP + VP  → NP + $fi$ lhādir + root + Advt  → Taf → NP + root + $fi$ lhādir + Advt  → huwa + QR? + $P_1$ + Advt</td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(D)Formal Features</strong></td>
<td>→ huwa yaqra? lʔän</td>
</tr>
<tr>
<td>I. 1. Non-past tense marker</td>
<td>Formal Features</td>
</tr>
<tr>
<td>I. 2. Simultaneous-aspect marker</td>
<td>I. 1. Non-past tense marker</td>
</tr>
<tr>
<td>I. 3. Presence of tense carrier</td>
<td>2. Simultaneous-aspect marker</td>
</tr>
<tr>
<td>II. 1. Non-past tense marker</td>
<td>3. Presence of tense carrier</td>
</tr>
<tr>
<td>II. 2. Simultaneous-aspect marker</td>
<td>II. 1. Non-past tense marker</td>
</tr>
<tr>
<td>III. 1. Non-past tense marker</td>
<td>3. Presence of tense carrier</td>
</tr>
<tr>
<td>III. 2. Simultaneous-aspect marker</td>
<td>III. 1. Non-past tense marker</td>
</tr>
<tr>
<td>III. 3. Presence of tense carrier</td>
<td>2. No aspect marker</td>
</tr>
<tr>
<td></td>
<td>3. No tense carrier</td>
</tr>
</tbody>
</table>
### TABLE 114B

**FUNCTIONAL COMPARISON**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>is writing</td>
<td>yakūnu fāgil</td>
</tr>
</tbody>
</table>

**To indicate**

<table>
<thead>
<tr>
<th>1. Simultaneous Present</th>
<th>Tentative Simultaneous Present</th>
<th>Tentative Simultaneous Present</th>
<th>Simultaneous Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Contemporaneous Present</td>
<td>Contemporaneous Present</td>
<td>Contemporaneous Present</td>
<td>Contemporaneous Present</td>
</tr>
<tr>
<td>3. Current Habit</td>
<td>Tentative Habitual Action (Sim. with Non-past)</td>
<td>Tentative Habitual Action (Unspecified Time)</td>
<td>Current Habit</td>
</tr>
<tr>
<td>4. Planned Future</td>
<td>Tentative Sim. with Future</td>
<td>Tentative Duration in Future</td>
<td>Future Time</td>
</tr>
</tbody>
</table>
| 5. Action Continuous up to Future Point | Action Continuous upto Future Point16 | Tentative Duration in Future | contd...

16 This function is not represented in the data of yakūnu fāgil in the inventory of functions in Part Three. Yet it may be found in such sentences as: /huwa yakūn naqim ?ilā ?an na9ūd/'He is sleeping until we come back."
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>is writing</td>
<td>yākunu fā9il</td>
</tr>
<tr>
<td>6.</td>
<td>Tentative Habitual Action Sim.</td>
</tr>
<tr>
<td>7.</td>
<td>Tentative Habitual Action Sim.</td>
</tr>
<tr>
<td>8.</td>
<td>Tentative Action Sim.</td>
</tr>
<tr>
<td>9.</td>
<td>Action Simultaneous</td>
</tr>
</tbody>
</table>
# TABLE 115A

## FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)Form: was writing</td>
<td>Form: I. kāna fā9il</td>
</tr>
<tr>
<td></td>
<td>II. kāna yaf9al</td>
</tr>
<tr>
<td>(B)Examples</td>
<td>Examples</td>
</tr>
<tr>
<td>I. He was sleeping all last night.</td>
<td>I. /huwa kāna nā?im tuwāla llayla lmādiya/</td>
</tr>
<tr>
<td>II. He was working all last night.</td>
<td>II. /huwa kāna yaf9al tuwāla llayla lmādiya/</td>
</tr>
<tr>
<td>(C)Analysis</td>
<td>Analysis</td>
</tr>
<tr>
<td>I. S → NP + VP</td>
<td>I. S → NP + VP</td>
</tr>
<tr>
<td>→ NP + in the past + Sim. + V + Advt</td>
<td>→ NP + bilmādi + ?āniyyan + root + Advt</td>
</tr>
<tr>
<td>Tcar → NP + in the past + BE + Sim. + V + Advt</td>
<td>Tcar → NP + bilmādi + KWN + ?āniyyan + root + Advt</td>
</tr>
<tr>
<td>Taf → NP + BE + in the past + V + Sim. + Advt</td>
<td>Taf → NP + KWN + bilmādi + root + ?āniyyan + Advt</td>
</tr>
<tr>
<td>→ NP + BE + D₁ sleep + N + Advt</td>
<td>→ NP + KWN + D₁ + NWM + P₂Ø + Advt</td>
</tr>
<tr>
<td>→ he was sleeping all last night</td>
<td>→ huwa kāna nā?im tuwāla llayla lmādiya</td>
</tr>
</tbody>
</table>

contd...
### Table 115A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>II.</td>
<td>II. S</td>
</tr>
<tr>
<td></td>
<td>→ NP + VP</td>
</tr>
<tr>
<td></td>
<td>→ NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>→ lā sābiqan +</td>
</tr>
<tr>
<td></td>
<td>root + Advt</td>
</tr>
<tr>
<td>Tcar</td>
<td>NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>KWN + lā sābiqan+</td>
</tr>
<tr>
<td></td>
<td>root + Advt</td>
</tr>
<tr>
<td>Taf</td>
<td>NP + KWN + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>root + lā sābiqan +</td>
</tr>
<tr>
<td></td>
<td>Advt</td>
</tr>
<tr>
<td></td>
<td>→ NP + KWN + D1 +</td>
</tr>
<tr>
<td></td>
<td>9ML + P2 + Advt</td>
</tr>
<tr>
<td></td>
<td>→ huwa kāna ya9mal</td>
</tr>
<tr>
<td></td>
<td>ṭuwāla llayla</td>
</tr>
<tr>
<td></td>
<td>lmādiya</td>
</tr>
</tbody>
</table>

### (D) Formal Features

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.1. Past-tense marker</td>
<td>I.1. Past-tense marker</td>
</tr>
<tr>
<td>2. Simultaneous-aspect marker</td>
<td>2. Simultaneous-aspect marker</td>
</tr>
<tr>
<td>II.1. Past-tense marker</td>
<td>II.1. Past-tense marker</td>
</tr>
<tr>
<td>2. Simultaneous-aspect marker</td>
<td>2. Non-earlier aspect marker</td>
</tr>
</tbody>
</table>
### TABLE 115B

**FUNCTIONAL COMPARISON**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>was writing</td>
<td>kāna fāgil</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To indicate</th>
<th>Simultaneity in the Past</th>
<th>Simultaneity in the Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Action Simultaneous with Past Point/Action/State</td>
<td>Duration in the Past</td>
<td>Duration in the Past</td>
</tr>
<tr>
<td>2. Duration Simultaneous with the Past</td>
<td>Simultaneous with Pre-past</td>
<td>Duration at Pre-past</td>
</tr>
<tr>
<td>3. Duration Simultaneous with Pre-past</td>
<td>Simultaneous with Post-past</td>
<td>Duration at Post-past(^\text{17})</td>
</tr>
<tr>
<td>4. Duration Simultaneous with Post-past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>Frequency in the Past</td>
</tr>
</tbody>
</table>

\(^{17}\)This function is not represented in the Arabic data. Yet it is commonly found in such sentences as:
/kāna yaqraʔ kitābahu ba9da 9awdatihi mina lmadrasa/ 'He was read(ing) his book after his return from school.'
Table 115B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>was writing</td>
<td>kāna fāgil</td>
</tr>
<tr>
<td>6.</td>
<td>Hypothetical Action Simultaneous with Past (with law)</td>
</tr>
<tr>
<td>7.</td>
<td>Hypothetical Simultaneous Present (with lawlā)</td>
</tr>
<tr>
<td>8.</td>
<td>Hypothetical Action at Post-past (with lawlā) (in Subordinate Clauses)</td>
</tr>
<tr>
<td>ENGLISH</td>
<td>ARABIC</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
</tr>
</tbody>
</table>
| **(A) Form** has been writing | Form: I. yakūnu fa9al  
II. yaf9al |
| **(B) Examples** | Examples |
| I. When Layla has been working for three hours tomorrow, she will stop. | I. /9indamā takūnu laylā  
9amilat lithalāthi sāgāt ghadan, satatawaqqaf/ |
| II. He has been reading that book for more than a week. | II. /hüwa yagra? dhālika lkitāb mundhu ?akthar min ?usbū9/ |
| **(C) Analysis** | Analysis |
| I. S ➔ ... NP + VP ➔ NP + at present + earlier + sim. + V + Advt | I. S ➔ ... NP + VP ➔ NP + fi lhādir + sābiqan + root + Advt |
| Tcar ➔ NP + at present + HAVE + earlier + BE + sim. + V +Advt | Tcar ➔ NP + fi lhādir + KWN + sābiqan + root + Advt |

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taf→ NP + HAVE + at present + BE + earlier + V + sim. + Advt</td>
<td>Taf→ NP + KWN + fi lhādir + root + sābiqan + Advt</td>
</tr>
<tr>
<td>→ NP + HAVE + Ø₁ + BE + D₂ + work + N + Advt</td>
<td>→ KWN + fi lhādir+ invert BE NP + root + sābiqan + Advt</td>
</tr>
<tr>
<td>→ ... Layla has been working for three hours tomorrow...</td>
<td>→ KWN + P₁ + NP + 9ML + D₂ + Advt</td>
</tr>
<tr>
<td>II. S→ NP + VP</td>
<td>→ ... takūnu laylā 9amilat lithalāthi sāgāt ghadan...</td>
</tr>
<tr>
<td>→ NP₁ + fi lhādir + root + NP₂ + Advt</td>
<td>II. S→ NP + VP</td>
</tr>
<tr>
<td>Taf→ NP₁ + root + fi lhādir + NP₂ + Advt</td>
<td>→ NP₁ + QR? + P₁ + NP₂ + Advt</td>
</tr>
<tr>
<td>→ huwa yaqra? dhālika lkitāb mundhu</td>
<td>→ huwa yaqra? dhālika lkitāb mundhu</td>
</tr>
<tr>
<td>?akthar min ?usbūg contd...</td>
<td>?akthar min ?usbūg contd...</td>
</tr>
</tbody>
</table>
Table 116A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formal Features</strong></td>
<td><strong>Formal Features</strong></td>
</tr>
<tr>
<td><strong>I. 1. Non-past tense marker</strong></td>
<td><strong>I. 1. Non-past tense marker</strong></td>
</tr>
<tr>
<td>2. Earlier-aspect marker</td>
<td>2. Earlier-aspect marker</td>
</tr>
<tr>
<td>5. Presence of aspect carrier BE</td>
<td>5. Absence of aspect carrier</td>
</tr>
<tr>
<td><strong>II. 1. Non-past tense marker</strong></td>
<td><strong>II. 1. Non-past tense marker</strong></td>
</tr>
<tr>
<td>2. Presence of earlier-aspect marker</td>
<td>2. Absence of earlier-aspect marker</td>
</tr>
<tr>
<td>5. Presence of aspect carrier BE</td>
<td>5. Absence of aspect carrier</td>
</tr>
<tr>
<td>ENGLISH</td>
<td>ARABIC</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>has been writing</td>
<td>yakūnu fa9al</td>
</tr>
<tr>
<td><strong>To indicate</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1.</strong> Past Activity Continuing up to Simultaneous Present</td>
<td>Past Activity Continuing up to Simultaneous Present</td>
</tr>
<tr>
<td><strong>2.</strong> Activity Continuing at Pre-future</td>
<td>Tentative Pre-future</td>
</tr>
</tbody>
</table>
### TABLE 117A

**FORMAL COMPARISON**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) <strong>Form:</strong> had been writing</td>
<td><strong>Form:</strong> I. ُkāna fāgil</td>
</tr>
<tr>
<td></td>
<td>II. ُkāna yaf9al</td>
</tr>
<tr>
<td>(B) <strong>Examples</strong></td>
<td><strong>Examples</strong></td>
</tr>
<tr>
<td>I. He had been sleeping when I arrived.</td>
<td>I. /huwa ُkāna nā?im</td>
</tr>
<tr>
<td></td>
<td>9indamā wasaltu/</td>
</tr>
<tr>
<td>II. They had been reading when the bell rang.</td>
<td>II. /hum ُkānu yaqra?ūn</td>
</tr>
<tr>
<td></td>
<td>9indamā daqqa jjaras/</td>
</tr>
<tr>
<td>(C) <strong>Analysis</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td>I. S→ NP + VP ...</td>
<td>I. S→ NP + VP ...</td>
</tr>
<tr>
<td>→ NP + in the past + earlier + sim. + V</td>
<td>→ NP + bilmādi +</td>
</tr>
<tr>
<td>Tcar→ NP + in the past + HAVE + earlier + BE + sim. + V</td>
<td>?āniyyan + root</td>
</tr>
<tr>
<td>Taf→ NP + HAVE + in the past + BE + earlier + V + sim.</td>
<td>KWN + ?āniyyan + root</td>
</tr>
<tr>
<td></td>
<td>Taf→ NP + KWN + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>+ root + ?āniyyan</td>
</tr>
</tbody>
</table>

contd...
Table 117A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ NP + HAVE + sleep + N he had been sleeping ...</td>
<td>→ NP + KWN + D₁ + NWM + P₂Ø huwa kāna nā'im ...</td>
</tr>
<tr>
<td>D₁ + BE + D₂ +</td>
<td></td>
</tr>
</tbody>
</table>

II.

II. S → NP + VP ...

Tear → NP + bilmādi + læ sābiqan + root

Tcar → NP + bilmādi + KWN + læ sābiqan + root

Taf → NP + KWN + bilmādi + root + læ sābiqan

→ NP + KWN + D₁ + QR? + P₂

→ hum kānu yaqra?ūn ...

(D)Formal Features

I.1. Past-tense marker
2. Presence of earlier-aspect marker

Formal Features

I.1. Past-tense marker
2. Absence of earlier-aspect marker

contd...
Table 117A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Tense carrier HAVE</td>
<td>4. Tense carrier KWN</td>
</tr>
<tr>
<td>5. Presence of aspect carrier BE</td>
<td>5. Absence of aspect carrier</td>
</tr>
<tr>
<td>II.1. Past-tense marker</td>
<td>II.1. Past-tense marker</td>
</tr>
<tr>
<td>2. Earlier-aspect marker</td>
<td>2. Non-earlier aspect marker</td>
</tr>
<tr>
<td>5. Presence of aspect carrier</td>
<td>5. Absence of aspect carrier</td>
</tr>
</tbody>
</table>
### TABLE 117B

**FUNCTIONAL COMPARISON**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>had been writing</td>
<td>kāna fāgil</td>
</tr>
<tr>
<td>kāna yaf9al</td>
<td></td>
</tr>
</tbody>
</table>

**To indicate**

1. An Activity begun at Pre-past and still Simultaneous with a Past Point/Period

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Simultaneous with Point/Period at Pre-past</td>
<td>Duration at Pre-past</td>
</tr>
</tbody>
</table>

2. Duration at Pre-past

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simultaneity with Pre-past</td>
<td>Duration at Pre-past</td>
</tr>
</tbody>
</table>

3. Hypothetical Past (in Conditional Sentences)

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothetical Past (with law)</td>
<td>Hypothetical Past (with law)</td>
</tr>
</tbody>
</table>
### Table 118A

**FORMAL COMPARISON**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(A)</strong> Form: will be writing</td>
<td>Form: I. sayakūnu fāgil</td>
</tr>
<tr>
<td></td>
<td>II. sayakūnu yafgil</td>
</tr>
<tr>
<td></td>
<td>III. sayafgil</td>
</tr>
<tr>
<td><strong>(B)</strong> Examples</td>
<td>Examples</td>
</tr>
<tr>
<td>I. He will be sleeping all day tomorrow.</td>
<td>I. /huwa sayakūnu nā?im tuwāla yawmi lghad/</td>
</tr>
<tr>
<td>II. She will be reading.</td>
<td>II. /hiya satakūnu tagra?/</td>
</tr>
<tr>
<td>III. They will be arriving next week.</td>
<td>III. /hum sayasilūna fi l?usbūgi lqādim/</td>
</tr>
<tr>
<td><strong>(C)</strong> Analysis</td>
<td>Analysis</td>
</tr>
<tr>
<td>I. $S \rightarrow NP + VP$</td>
<td>I. $S \rightarrow NP + VP$</td>
</tr>
<tr>
<td>$\rightarrow NP + at$ present + later + sim. + $V + Advt$</td>
<td>$\rightarrow NP + fi lhādir + lāhiqan + ?āniyyan + root + Advt$</td>
</tr>
<tr>
<td>Tcar $\rightarrow NP + at$ present + WILL + non-earlier + BE + sim. + V + Advt</td>
<td>Tcar $\rightarrow NP + fi lhādir + lāhiqan + KWN + ?āniyyan + root + Advt$</td>
</tr>
</tbody>
</table>

contd...
Table 118A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taf → NP + WILL + at present + BE + non-earlier + V + sim. + Advt</td>
<td>Taf → NP + fi lhādir + KWN + lāhiqan + root + ?āniyyan + Advt</td>
</tr>
<tr>
<td>→ NP + WILL + ⌀₁ + BE + ⌀₂ + sleep + N + Advt</td>
<td>→ NP + KWN + fi lḥādir + lāhiqan + root + ?āniyyan + Advt</td>
</tr>
<tr>
<td>→ he will be sleeping all day tomorrow</td>
<td>→ NP + KWN + P₁ + P₂⁺ + NWM + P₂∅ + Advt</td>
</tr>
<tr>
<td></td>
<td>→ huwa sayakūnu nāʔim tuwāla yawmi lghad</td>
</tr>
<tr>
<td>II.</td>
<td>II.S → NP + VP</td>
</tr>
<tr>
<td></td>
<td>→ NP + fi lhādir + lāhiqan + lā sabiqan + root</td>
</tr>
</tbody>
</table>
| Tcar → NP + fi lhādir + lāhiqan + KWN + lā sabiqan + root             | contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taf→ NP + fi lhādir + KWN + lāhiqan + root + lā sābiqan</td>
<td>Taf→ NP + KWN + fi lhādir + lāhiqan + root + lā sābiqan</td>
</tr>
<tr>
<td>→ NP + KWN + P₁ + P₂ + root + P₂∅</td>
<td>→ hiya satakūnu taqra?</td>
</tr>
<tr>
<td>III.</td>
<td>III.S→ NP + VP</td>
</tr>
<tr>
<td>→ NP + fi lhādir + lāhiqan + root + Advt</td>
<td>Taf→ NP + fi lhādir + root + lāhiqan + Advt</td>
</tr>
<tr>
<td></td>
<td>Taf→ NP + root + fi lhādir + lāhiqan + Advt</td>
</tr>
<tr>
<td>→ NP + WSL + P₁ + P₂ + Advt</td>
<td>→ hum sayasilūna fi l?usbūgi lqādim</td>
</tr>
</tbody>
</table>

contd...
Table 118A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(D)Formal Features</strong></td>
<td><strong>Formal Features</strong></td>
</tr>
<tr>
<td>I. 1. Non-past tense marker</td>
<td>I. 1. Non-past tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>3. Simultaneous-aspect marker</td>
<td>3. Simultaneous-aspect marker</td>
</tr>
<tr>
<td>4. Tense carrier WILL</td>
<td>4. Tense carrier K\WN</td>
</tr>
<tr>
<td>5. Presence of aspect carrier BE</td>
<td>5. Absence of aspect carrier</td>
</tr>
<tr>
<td>II. 1. Non-past tense marker</td>
<td>II. 1. Non-past tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>3. Simultaneous-aspect marker</td>
<td>3. No-earlier aspect marker</td>
</tr>
<tr>
<td>5. Presence of aspect carrier</td>
<td>5. Absence of aspect carrier</td>
</tr>
<tr>
<td>III. 1. Non-past tense marker</td>
<td>III. 1. Non-past tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>4. Tense carrier</td>
<td>4. No tense carrier</td>
</tr>
<tr>
<td>5. Aspect carrier</td>
<td>5. No aspect carrier</td>
</tr>
</tbody>
</table>
### TABLE 118B

**FUNCTIONAL COMPARISON**

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>will be writing</td>
<td>sayakünūn</td>
</tr>
<tr>
<td></td>
<td>fāgil</td>
</tr>
<tr>
<td></td>
<td>sayakünūn</td>
</tr>
<tr>
<td></td>
<td>yafgal</td>
</tr>
<tr>
<td></td>
<td>sayafgal</td>
</tr>
</tbody>
</table>

**To indicate**

1. **Simultaneity in the Future**
   - Sim. in Future
   - Duration in Future
   - Future Time (Non-Extendable Actions)

2. **Frequency in the Future**
   - Frequency in Future
   - Frequency in Future
   - Future Time (Non-extendable Actions)

3. **Duration at Pre-future**
   - Simultaneity 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)

---

18 This function is not represented in the data of sayakünūn fāgil but it may be found in such Arabic sentences as: /huwa sayakünūn qāri?an kutubahu kullayawm fi lmustaqbal/ 'He will be reading his books every day in the future.'
Table 118B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>will be writing</td>
<td>sayakunu</td>
</tr>
<tr>
<td></td>
<td>fāgil</td>
</tr>
<tr>
<td></td>
<td>yaf9al</td>
</tr>
<tr>
<td></td>
<td>sayaf9al</td>
</tr>
</tbody>
</table>

5. Tentativeness at Present or in the Future

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tentativeness at</td>
<td>Tentativeness</td>
</tr>
<tr>
<td>Present or</td>
<td>Present or</td>
</tr>
<tr>
<td>Near Future</td>
<td>Simultaneous</td>
</tr>
<tr>
<td>Contemporaneous</td>
<td>Present</td>
</tr>
</tbody>
</table>

TABLE 119A
FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)Form: would be writ-</td>
<td>Form: I. kāna sayakūnu fāgil</td>
</tr>
<tr>
<td>ing</td>
<td>II. kāna sayakūnu yaf9al</td>
</tr>
<tr>
<td></td>
<td>III. kāna sayaf9al</td>
</tr>
<tr>
<td></td>
<td>IV. sayaf9al</td>
</tr>
<tr>
<td></td>
<td>V. kāna yaf9al</td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(B) Examples</strong></td>
<td><strong>Examples</strong></td>
</tr>
<tr>
<td>I. She would be sleeping for some time after I left her yesterday.</td>
<td>I. /hiya kānat satakūnu nā?ima liba9di lwqti ba9da ?an taraktuḥā bil?ams/</td>
</tr>
<tr>
<td>II. She would be writing a letter after I left her yesterday.</td>
<td>II. /hiya kānat satakūnu taktub risāla ba9da ?an taraktuḥā bil?ams/</td>
</tr>
<tr>
<td>III. Layla would be leaving after I left her yesterday.</td>
<td>III. /layla kānat satusāfir ba9da ?an taraktuḥā bil?ams/</td>
</tr>
<tr>
<td>IV. He told me that Zeki would be leaving soon.</td>
<td>IV. /?akhbarāni bi?anna zaki sayusāfir qarībān/</td>
</tr>
<tr>
<td>V. He would be going every Sunday.</td>
<td>V. /huwa kāna yadhhab kullā yawmī ?ahad/</td>
</tr>
<tr>
<td><strong>(C) Analysis</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td>I. S → NP + VP...</td>
<td>I. S → NP + VP...</td>
</tr>
<tr>
<td>→ NP + in the past + later + sim. + V + Advt</td>
<td>→ NP + bilmādi + lāhiqan + ?āniyyan + root + Advt</td>
</tr>
</tbody>
</table>

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>car</em> → NP + in the past + WILL +</td>
<td><em>car</em> → NP + bilmādi +</td>
</tr>
<tr>
<td>non-earlier +</td>
<td><em>KWN</em> + lāhiqan +</td>
</tr>
<tr>
<td>BE + sim. + V + Advt</td>
<td><em>KWN</em> + ʔāniyyan + root + Advt</td>
</tr>
<tr>
<td>→ NP + WILL + D₁ +</td>
<td>→ NP + <em>KWN</em> + D₁ +</td>
</tr>
<tr>
<td>BE + ʔ₂ + sleep + N + Advt</td>
<td><em>KWN</em> + P₂⁺ + N'WM + P₂Ø + Advt</td>
</tr>
<tr>
<td>→ she would be sleeping for some time...</td>
<td>→ hiya kānat satakūnu nā?ima liba9di lwaqti...</td>
</tr>
</tbody>
</table>

II. S → NP + VP

→ NP₁ + bilmādi + lāhiqan + lá
sābiqan + root + NP₂

Contd...
### Table 119A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tcar $\rightarrow$ NP$_1$ + bilmādi $+$ KWN + lāhiqan $+$ KWN + lā sābiqan root + NP$_2$</td>
<td>hiya kānat satakūnu taktub risāla...</td>
</tr>
<tr>
<td>Taf $\rightarrow$ NP$_1$ + KWN + bilmādi $+$ KWN + lāhiqan $+$ root + lā sābiqan $+$ NP$_2$</td>
<td>$\rightarrow$ NP$_1$ + KWN + D$_1$ + KWN + P$_2+$ KTB + P$_2$ + NP$_2$</td>
</tr>
<tr>
<td>III. $\rightarrow$ NP + VP</td>
<td>$\rightarrow$ NP + bilmādi $+$ lāhiqan + root+ Advt</td>
</tr>
<tr>
<td>Tcar $\rightarrow$ NP + bilmādi + KWN + lāhiqan + root + Advt</td>
<td>$\rightarrow$ NP + KWN + bilmādi $+$ root + lāhiqan $+$ Advt</td>
</tr>
<tr>
<td>Taf $\rightarrow$ NP + KWN + bilmādi $+$ root + lāhiqan $+$ Advt</td>
<td>contd...</td>
</tr>
</tbody>
</table>
### Table 119A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ NP + <strong>KWN</strong> + <strong>D</strong>&lt;sub&gt;1&lt;/sub&gt; +</td>
<td></td>
</tr>
<tr>
<td>SFR + <strong>P</strong>&lt;sub&gt;2+&lt;/sub&gt; + Advt</td>
<td></td>
</tr>
<tr>
<td>→ laylā kānat</td>
<td></td>
</tr>
<tr>
<td>satusāfir ...</td>
<td></td>
</tr>
<tr>
<td>IV. S→ ... NP + VP</td>
<td></td>
</tr>
<tr>
<td>→ NP + fi lhādir +</td>
<td></td>
</tr>
<tr>
<td>lāhiqan + root +</td>
<td></td>
</tr>
<tr>
<td>Advt</td>
<td></td>
</tr>
<tr>
<td>Taf→ NP + fi lhādir +</td>
<td></td>
</tr>
<tr>
<td>root + lāhiqan +</td>
<td></td>
</tr>
<tr>
<td>Advt</td>
<td></td>
</tr>
<tr>
<td>Taf→ NP + root + fi</td>
<td></td>
</tr>
<tr>
<td>lhādir + lāhiqan +</td>
<td></td>
</tr>
<tr>
<td>Advt</td>
<td></td>
</tr>
<tr>
<td>→ NP + SFR + <strong>P</strong>&lt;sub&gt;1&lt;/sub&gt; + <strong>P</strong>&lt;sub&gt;2+&lt;/sub&gt;</td>
<td></td>
</tr>
<tr>
<td>+ Advt</td>
<td></td>
</tr>
<tr>
<td>→ ... zaki sayusāfir</td>
<td></td>
</tr>
<tr>
<td>qartban</td>
<td></td>
</tr>
<tr>
<td>V. S→ NP + VP</td>
<td></td>
</tr>
<tr>
<td>→ NP + bilmādi + lā</td>
<td></td>
</tr>
<tr>
<td>sābiqan + root +</td>
<td></td>
</tr>
<tr>
<td>Advt</td>
<td></td>
</tr>
</tbody>
</table>

... contd...
Table 119A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D) Formal Features</td>
<td></td>
</tr>
<tr>
<td>I. 1. Past-tense marker</td>
<td>Tcar→ NP + bilmādi +</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>KWN + lā sābiqan + root + Advt</td>
</tr>
<tr>
<td>3. Simultaneous-aspect marker</td>
<td>Taf→ NP + KWN + bilmādi + root + lā sābiqan + Advt</td>
</tr>
<tr>
<td>4. Tense carrier, WILL</td>
<td>→ NP + KWN + D₁ + DHHB + P₂ + Advt</td>
</tr>
<tr>
<td>5. Aspect carrier, BE</td>
<td>→ huwa kāna yadhhab kullā yawmi ?ahad</td>
</tr>
<tr>
<td>II. 1. Past-tense marker</td>
<td></td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td></td>
</tr>
<tr>
<td>3. Simultaneous-aspect marker</td>
<td></td>
</tr>
<tr>
<td>4. Tense carrier</td>
<td></td>
</tr>
<tr>
<td>5. Aspect carrier</td>
<td></td>
</tr>
</tbody>
</table>

contd...
### ENGLISH | ARABIC
---|---
III. 1. Past-tense marker | III. 1. Past-tense marker
  2. Later-aspect marker | 2. Later-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
  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
  4. Tense carrier | 4. Tense carrier
  5. Aspect carrier | 5. No aspect carrier
TABLE 119B
FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>A R A B I C</th>
</tr>
</thead>
<tbody>
<tr>
<td>would be</td>
<td>kāna saya-kūn fā9il</td>
</tr>
<tr>
<td>writing</td>
<td>kāna saya-kūn yaf9al</td>
</tr>
<tr>
<td></td>
<td>kāna sayaf9al</td>
</tr>
<tr>
<td></td>
<td>sayaf9al</td>
</tr>
<tr>
<td></td>
<td>kāna yaf9al</td>
</tr>
<tr>
<td>To indicate</td>
<td></td>
</tr>
<tr>
<td>1 Sim. at</td>
<td>Sim. at Sim. at</td>
</tr>
<tr>
<td>Later-past</td>
<td>Later-past</td>
</tr>
<tr>
<td></td>
<td>(Extended)</td>
</tr>
<tr>
<td></td>
<td>(Non-extended)</td>
</tr>
<tr>
<td></td>
<td>(Subordinate Clauses)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Hypothetical</td>
<td>Hypothetical Hypothetical</td>
</tr>
<tr>
<td>Future</td>
<td>Future Future</td>
</tr>
<tr>
<td></td>
<td>(Extended) (Extended)</td>
</tr>
<tr>
<td></td>
<td>(Non-extended)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Tentative</td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Hypothetical</td>
<td>Hypothetical Hypothetical</td>
</tr>
<tr>
<td>Present or</td>
<td>Present Present (Subordinate</td>
</tr>
<tr>
<td>Near Future</td>
<td>Sim. Sim.</td>
</tr>
<tr>
<td>(if or but)</td>
<td>Present Clauses)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

contd...
Table 119B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>A</th>
<th>R</th>
<th>A</th>
<th>B</th>
<th>I</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>would be writing</td>
<td>käna saya-kūn fāgil</td>
<td>käna saya-kūn yaf9al</td>
<td>käna sayaf9al</td>
<td>sayaf9al</td>
<td>käna yaf9al</td>
<td></td>
</tr>
<tr>
<td>5 Tentative Post-future</td>
<td></td>
<td></td>
<td>Post-future</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Tentative Pre-future</td>
<td></td>
<td></td>
<td>Pre-Future</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Hypothetical Pre-future (if or but)</td>
<td>Hypothetical Pre-future (Extended)</td>
<td>Hypothetical Pre-future (Non-extended)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Past Habit</td>
<td></td>
<td></td>
<td>Past Frequency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Hypothetical Post-past</td>
<td>Hypothetical Duration at Post-past</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

contd...
Table 119B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>would be writing</td>
<td>käna saya-kün fa9al</td>
</tr>
<tr>
<td>10 Hypothetical</td>
<td>Hypothetical</td>
</tr>
<tr>
<td>Post-future</td>
<td>Post-future</td>
</tr>
<tr>
<td></td>
<td>(Extended)</td>
</tr>
</tbody>
</table>

Table 120A

FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)Form: will have written</td>
<td>Form: sayakūnu fa9al</td>
</tr>
<tr>
<td>(B)Example</td>
<td>Example</td>
</tr>
<tr>
<td>Zeki will have written</td>
<td>/zaki sayakūnu kataba</td>
</tr>
<tr>
<td>the essay by next week.</td>
<td>lmaqāla fi l?usbü9i</td>
</tr>
<tr>
<td></td>
<td>lqādim/</td>
</tr>
<tr>
<td>(C)Analysis</td>
<td>Analysis</td>
</tr>
<tr>
<td>S → NP + VP</td>
<td>S → NP + VP</td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>[\rightarrow NP_1 + at present + later + earlier + V + NP_2 + Advt]</td>
<td>[\rightarrow NP_1 + fi lhādir + lāhiqan + säbīqan + root + NP_2 + Advt]</td>
</tr>
<tr>
<td>Tcar [\rightarrow NP_1 + at present + WILL + non-earlier + HAVE + earlier + V + NP_2 + Advt]</td>
<td>Tcar [\rightarrow NP_1 + fi lhādir + lāhiqan + KWN + sabīqan + root + NP_2 + Advt]</td>
</tr>
<tr>
<td>Taf [\rightarrow NP_1 + WILL + at present + HAVE + non-earlier + V + earlier + NP_2 + Advt]</td>
<td>Taf [\rightarrow NP_1 + fi lhādir + KWN + lāhiqan + root + sabīqan + NP_2 + Advt]</td>
</tr>
<tr>
<td>[\rightarrow NP_1 + WILL + \emptyset + HAVE + \emptyset + write + D_2 + NP_2 + Advt]</td>
<td>[\rightarrow NP_1 + KWN + fi lhādir + lāhiqan + root + sabīqan + NP_2 + Advt]</td>
</tr>
<tr>
<td>[\rightarrow Zeki will have written the essay by next week]</td>
<td>[\rightarrow NP_1 + KWN + P_1 + P_2 + KTB + D_2 + NP_2 + Advt]</td>
</tr>
<tr>
<td></td>
<td>[\rightarrow zaki sayakūnu kataba lmaqāla fi l?usbūqi lgādim]</td>
</tr>
<tr>
<td></td>
<td><strong>contd...</strong></td>
</tr>
</tbody>
</table>
Table 120A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(D)Formal Features</td>
<td>Formal Features</td>
</tr>
<tr>
<td>1. Non-past tense marker</td>
<td>1. Non-past tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>3. Earlier-aspect marker</td>
<td>3. Earlier-aspect marker</td>
</tr>
<tr>
<td>4. Tense carrier, WILL</td>
<td>4. Tense carrier, KWN</td>
</tr>
<tr>
<td>5. Presence of aspect carrier, HAVE</td>
<td>5. Absence of aspect carrier</td>
</tr>
</tbody>
</table>

TABLE 120B
FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>will have written</td>
<td>sayakûnu fa9al</td>
</tr>
<tr>
<td>To indicate</td>
<td></td>
</tr>
<tr>
<td>1. Pre-future</td>
<td>Pre-future</td>
</tr>
<tr>
<td>2. Time Earlier than a Post-future Point</td>
<td>Time Earlier than a Post-future Point 21</td>
</tr>
</tbody>
</table>

This function is not represented in the test data of Arabic tensemes. Yet, the tenseme will have written may be translated by the Arabic tenseme sayakûnu fa9al in all three sentences given for this function on page 339.
Table 120B contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>will have written</td>
<td>sayakūnu fa9al</td>
</tr>
</tbody>
</table>

3. Tentativeness at Recent Past
   Tentativeness at Recent Past

4. Hypothetical Action Simultaneous with Present or Recent Past

---

Table 121A
FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)Form: would have written</td>
<td>Form: I. käna sayakūnu fa9al</td>
</tr>
<tr>
<td>(B)Examples</td>
<td>II. sayakūnu fa9al</td>
</tr>
<tr>
<td>I. By the time they reached the station, the train would have gone.</td>
<td>Examples:</td>
</tr>
<tr>
<td></td>
<td>I. /qabla ?an yašilu ?ila lmahatta käna</td>
</tr>
<tr>
<td></td>
<td>lqitār sayakūnu dhahab/</td>
</tr>
</tbody>
</table>

---

22This function is not represented in the 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.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. He said that the train would have gone before she reached the station.</td>
<td>II. /qāla bi′anna lqīṭar sayakūnu dhahab qabla ?an tasila ?ila lmaḥatta/</td>
</tr>
</tbody>
</table>

(C)Analysis

I. S→ ... NP + VP
→ NP + in the past + later + earlier + V
Tcar→ NP + in the past + WILL + non-earlier + HAVE + earlier + V
Taf→ NP + WILL + in the past + HAVE + non-earlier + V + earlier
→ NP + WILL + D₁ + HAVE + Ø₂ + V + D₂
→ ... the train would have gone

Analysis

I. S→ ... NP + VP
→ NP + bilmādi + lāhiqan + sābiqan+
root
Tcar→ NP + bilmādi + KWN + lāhiqan + KWN + sābiqan + root
Taf→ NP + KWN + bilmādi + KWN + lāhiqan + root + sābiqan
Tinvert→ KWN + bilmādi + NP + KWN + lāhiqan + root + sābiqan
→ KWN + D₁ + NP + KWN + P₂ + DHBB + D₂

contd...
Table 121A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>... kāna lqīṭār sayakūnu dhahab</td>
<td></td>
</tr>
<tr>
<td>II.</td>
<td></td>
</tr>
<tr>
<td>II.S→ ... NP + VP ...</td>
<td></td>
</tr>
<tr>
<td>→ NP + fi lhādir + lāhiqan + sābiqan + root</td>
<td></td>
</tr>
<tr>
<td>Tcar→ NP + fi lhādir + lāhiqan + KWN + sābiqan + root</td>
<td></td>
</tr>
<tr>
<td>Taf→ NP + fi lhādir + KWN + lāhiqan + root + sābiqan</td>
<td></td>
</tr>
<tr>
<td>Taf→ NP + KWN + fi lhādir + lāhiqan + root + sābiqan</td>
<td></td>
</tr>
<tr>
<td>→ NP + KWN + P₁ + P₂⁺ + DHHB + D₂</td>
<td></td>
</tr>
<tr>
<td>→ ... lqīṭār sayakūnu dhahab...</td>
<td></td>
</tr>
</tbody>
</table>

(D) Formal Features

1.1. Past-tense marker
2. Later-aspect marker

Formal Features
1.1. Past-tense marker
2. Later-aspect marker

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Earlier-aspect marker</td>
<td>3. Earlier-aspect marker</td>
</tr>
<tr>
<td>4. Tense carrier, WILL</td>
<td>4. Tense carrier, كون</td>
</tr>
<tr>
<td>5. Aspect carrier, HAVE</td>
<td>5. Aspect carrier, كون</td>
</tr>
<tr>
<td>II.1. Past-tense marker</td>
<td>II.1. Non-past tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>3. Earlier-aspect marker</td>
<td>3. Earlier-aspect marker</td>
</tr>
<tr>
<td>4. Tense carrier, WILL</td>
<td>4. Tense carrier, كون</td>
</tr>
<tr>
<td>5. Aspect carrier, HAVE</td>
<td>5. No aspect carrier</td>
</tr>
</tbody>
</table>
TABLE 121B
FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>would have written</td>
<td>käna sayakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>sayakūnu fa9al</td>
</tr>
<tr>
<td>To indicate</td>
<td></td>
</tr>
<tr>
<td>1. Time earlier than a Point</td>
<td>Tentative Action earlier</td>
</tr>
<tr>
<td>at Later-past</td>
<td>than a Later-past Point</td>
</tr>
<tr>
<td></td>
<td>(Main Clauses)</td>
</tr>
<tr>
<td>2. Hypothetical Past</td>
<td>Hypothetical Past</td>
</tr>
<tr>
<td>3. Hypothetical Future (if)</td>
<td>Hypothetical Future</td>
</tr>
<tr>
<td>4. Hypothetical Post-past</td>
<td>Hypothetical Post-past</td>
</tr>
<tr>
<td>5. Hypothetical Simultaneous</td>
<td>Hypothetical Simultaneous</td>
</tr>
<tr>
<td>Present</td>
<td>Present</td>
</tr>
</tbody>
</table>

23 This 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.

24 This function is not represented in the functions of käna 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:

'would have left just now but it is raining. /kunna sanakūnu ghādarnā l?ān lawla lmatar/'
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) <strong>Form:</strong> will have been writing</td>
<td><strong>Form:</strong> sayakūnu fa9al</td>
</tr>
<tr>
<td>(B) <strong>Example</strong></td>
<td><strong>Example</strong></td>
</tr>
<tr>
<td>By midnight, he will have been writing for ten hours.</td>
<td>/fi muntasafi llayl, huwa sayakūnu katab l19ashrā sāgāt/</td>
</tr>
<tr>
<td>(C) <strong>Analysis</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td>$S \rightarrow NP + VP$</td>
<td>$S \rightarrow NP + VP$</td>
</tr>
<tr>
<td>$\rightarrow NP + at present + later + earlier$</td>
<td>$\rightarrow NP + fi l\mathring{a}dir + lāhiqan + sābiqan + root + Advt$</td>
</tr>
<tr>
<td>$\rightarrow sim. + V + Advt$</td>
<td>$\rightarrow lāhiqan + KWN + sābiqan + root + Advt$</td>
</tr>
<tr>
<td>$Tcar \rightarrow NP + at present +$</td>
<td>$Tcar \rightarrow NP + fi l\mathring{a}dir +$</td>
</tr>
<tr>
<td>WILL + non-earlier + HAVE + earlier + BE + sim. + V + Advt</td>
<td>WILL + non-earlier + HAVE + earlier + BE + sim. + V + Advt</td>
</tr>
<tr>
<td>$Taf \rightarrow NP + WILL + at present +$/non-earlier + BE + earlier + V + sim. + Advt</td>
<td>$Taf \rightarrow NP + fi l\mathring{a}dir + KWN + lāhiqan + root + sābiqan + Advt$</td>
</tr>
<tr>
<td></td>
<td>contd...</td>
</tr>
</tbody>
</table>
Table 122A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ NP + WILL + φ₁ + HAVE + φ₂ + BE + D₂ + write + N + Advt</td>
<td>Taf → NP + KWN + fi lhādir + lāhīqān + root + sābiqān + Advt</td>
</tr>
<tr>
<td>he will have been writing for ten hours by midnight</td>
<td>→ NP + KWN + P₁ + P₂+ + KTB + D₂ + Advt</td>
</tr>
<tr>
<td></td>
<td>→ huwa sayakūnu katab li9ashrād太阳 sāgāt fi muntasāfī llayl</td>
</tr>
</tbody>
</table>

(D) Formal Features

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

Formal Features

1. Non-past tense marker
2. Later-aspect marker
3. Earlier-aspect marker
4. No simultaneous aspect marker
5. Tense carrier, KW
6. No later-aspect carrier
7. No earlier-aspect carrier
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>will have been writing</td>
<td>sayakūnu fa9al</td>
</tr>
</tbody>
</table>

To indicate

1. Simultaneity with Pre-future

2. Past Activity
   Continuing up to Simultaneous Present

25This function is not represented in the datum of sayakūnu fa9al in the General Inventory of Functions of Arabic tenses 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 shtagha fi hādhihi lbināya likhamsati
?ashhura l?an/
TABLE 123A

FORMAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)Form: would have been writing</td>
<td>Form: I. kāna sayakūnu fa9al</td>
</tr>
<tr>
<td></td>
<td>II. kāna sayakūnu fāgil</td>
</tr>
<tr>
<td></td>
<td>III. kāna sayakūnu yaf9al</td>
</tr>
<tr>
<td>(B) Examples</td>
<td>Examples</td>
</tr>
<tr>
<td>I. She would have been going but for the rain.</td>
<td>I. /hiya kānat satakūnu dhahabat lawla lmātar/</td>
</tr>
<tr>
<td>II. She would have been sleeping but for the noise.</td>
<td>II. /hiya kānat satakūnu nā?ima lawla ddajja/</td>
</tr>
<tr>
<td>III. She would have been writing but for the power-cut.</td>
<td>III. /hiya kānat satakūnu taktub lawla nqitāgi ttayār/</td>
</tr>
<tr>
<td>(C) Analysis</td>
<td>Analysis</td>
</tr>
<tr>
<td>I. S → NP + VP</td>
<td>I. S → NP + VP</td>
</tr>
<tr>
<td>→ NP + in the past + later + earlier + sim. + V + X</td>
<td>→ NP + bilmādi + lāhiqan + sābiqan + root + X</td>
</tr>
<tr>
<td></td>
<td>contd...</td>
</tr>
<tr>
<td>ENGLISH</td>
<td>ARABIC</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Tcar</strong> → <strong>NP</strong> + in the past + <strong>WILL</strong> + non-earlier + <strong>HAVE</strong> + earlier + <strong>BE</strong> + sim. + <strong>V</strong> + <strong>X</strong></td>
<td><strong>Tcar</strong> → <strong>NP</strong> + <strong>bilmādi</strong> + <strong>KWN</strong> + <strong>lāhiqan</strong> + <strong>KWN</strong> + <strong>sābiqan</strong> + root + <strong>X</strong></td>
</tr>
<tr>
<td><strong>Taf</strong> → <strong>NP</strong> + <strong>WILL</strong> + in the past + <strong>HAVE</strong> + non-earlier + <strong>BE</strong> + earlier + <strong>V</strong> + sim. + <strong>X</strong></td>
<td><strong>Taf</strong> → <strong>NP</strong> + <strong>KWN</strong> + <strong>bilmādi</strong> + <strong>KWN</strong> + <strong>lāhiqan</strong> + root + <strong>sābiqan</strong> + <strong>X</strong></td>
</tr>
<tr>
<td>→ <strong>NP</strong> + <strong>WILL</strong> + <strong>D₁</strong> + <strong>HAVE</strong> + <strong>∅₂</strong> + <strong>BE</strong> + <strong>D₂</strong> + <strong>go</strong> + <strong>N</strong> + <strong>X</strong></td>
<td>→ <strong>NP</strong> + <strong>KWN</strong> + <strong>D₁</strong> + <strong>KWN</strong> + <strong>P₂⁺</strong> + <strong>DHHB</strong> + <strong>D₂</strong> + <strong>X</strong></td>
</tr>
<tr>
<td>→ she would have been going but for the rain</td>
<td>→ hiya kānat satakūnu dhahabat lawla lmaṭar</td>
</tr>
<tr>
<td><strong>II.</strong></td>
<td><strong>II. S</strong> → <strong>NP</strong> + <strong>VP</strong></td>
</tr>
<tr>
<td>→ <strong>NP</strong> + <strong>bilmādi</strong> + <strong>lāhiqan</strong> + <strong>?āniyyan</strong> + root + <strong>X</strong></td>
<td>→ <strong>NP</strong> + <strong>bilmādi</strong> + <strong>lāhiqan</strong> + <strong>?āniyyan</strong> + root + <strong>X</strong></td>
</tr>
</tbody>
</table>

**Table 123A contd.**
### Table 123A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tcar → NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>KWN + lāhiqan +</td>
</tr>
<tr>
<td></td>
<td>KWN + ?āniyyan +</td>
</tr>
<tr>
<td></td>
<td>root + X</td>
</tr>
<tr>
<td></td>
<td>Taf → NP + KWN + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>+ KWN + lāhiqan +</td>
</tr>
<tr>
<td></td>
<td>root + ?āniyyan +</td>
</tr>
<tr>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>→ NP + KWN + D₁ +</td>
</tr>
<tr>
<td></td>
<td>KWN + P₂₊ + NWM +</td>
</tr>
<tr>
<td></td>
<td>P₂₀ + X</td>
</tr>
<tr>
<td></td>
<td>→ hiya kānat satakūnu</td>
</tr>
<tr>
<td></td>
<td>nā?ima lawla ddajja</td>
</tr>
<tr>
<td>III.</td>
<td>III. S → NP + VP</td>
</tr>
<tr>
<td></td>
<td>→ NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>lāhiqan + lā</td>
</tr>
<tr>
<td></td>
<td>sābiqan + root + X</td>
</tr>
<tr>
<td></td>
<td>Tcar → NP + bilmādi +</td>
</tr>
<tr>
<td></td>
<td>KWN + lāhiqan +</td>
</tr>
<tr>
<td></td>
<td>KWN + lā sābiqan +</td>
</tr>
<tr>
<td></td>
<td>root + X</td>
</tr>
</tbody>
</table>

contd...
Table 123A contd.

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taf → NP + KWN + bilmādi + KWN + lāhiqan + root + lā sābiqan + X → NP + KWN + D₁ + KWN + P₂ + KTB + P₂ + X → hiya kānat satakūnu taktub lawla nqītāġi ttayyār</td>
</tr>
</tbody>
</table>

(D) Formal Features

1. Past-tense marker
2. Later-aspect marker
3. Earlier-aspect marker
4. Simultaneous-aspect marker
5. Tense carrier
6. Later-aspect carrier, HAVE

Formal Features

1. Past-tense marker
2. Later-aspect marker
3. Earlier-aspect marker
4. No Simultaneous-aspect marker
5. Tense carrier
6. Later-aspect carrier, KWN

contd...
<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Earlier-aspect carrier, BE</td>
<td>7. No earlier-aspect carrier</td>
</tr>
<tr>
<td>II.1. Past-tense marker</td>
<td>II.1. Past-tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>3. Earlier-aspect marker</td>
<td>3. No earlier-aspect marker</td>
</tr>
<tr>
<td>4. Simultaneous-aspect marker</td>
<td>4. Simultaneous-aspect marker</td>
</tr>
<tr>
<td>5. Tense carrier</td>
<td>5. Tense carrier</td>
</tr>
<tr>
<td>7. Earlier-aspect carrier, BE</td>
<td>7. No earlier-aspect carrier</td>
</tr>
<tr>
<td>III.1. Past-tense marker</td>
<td>III.1. Past-tense marker</td>
</tr>
<tr>
<td>2. Later-aspect marker</td>
<td>2. Later-aspect marker</td>
</tr>
<tr>
<td>3. Earlier-aspect marker</td>
<td>3. No earlier aspect marker</td>
</tr>
<tr>
<td>4. Simultaneous-aspect marker</td>
<td>4. No simultaneous-aspect marker</td>
</tr>
<tr>
<td>5. Tense carrier</td>
<td>5. Tense carrier</td>
</tr>
<tr>
<td>7. Earlier-aspect carrier, BE</td>
<td>7. No earlier-aspect carrier</td>
</tr>
</tbody>
</table>
TABLE 123B
FUNCTIONAL COMPARISON

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>A</th>
<th>R</th>
<th>A</th>
<th>B</th>
<th>I</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>would have been writing</td>
<td>käna sayakünü fa9al</td>
<td>käna sayakünü fā9il</td>
<td>käna sayakünü yaf9al</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To indicate 1. Hypothetical Action Sim. with a Time Earlier than Later-past</td>
<td>Hypothetical Action Earlier than Later-past (with lawlā) (Non-extendable Actions)</td>
<td>Hypothetical Sim. with Later-past</td>
<td>Hypothetical Sim. with Later-past</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Hypothetical Future</td>
<td>Hypothetical Future (Non-extendable Actions)</td>
<td>Hypothetical Future</td>
<td>Hypothetical Future</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Hypothetical Past</td>
<td>Hypothetical Recent Past (Non-extendable Actions)</td>
<td>Hypothetical Past</td>
<td>Hypothetical Past</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Hypothetical Present</td>
<td>Hypothetical Sim. Present</td>
<td>Hypothetical Sim. Present</td>
<td>Hypothetical Sim. Present</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

\(^1\) Lado, *Linguistics Across Cultures*, p 59.
problems and (b) negative-interference problems. 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 tensemes is taken separately. By examining each formal-functional pair of tables for the constrastive tensemes involved, a list of potential learning problems involved in the tensemes 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 tensemes 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 tensemes 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 tensemes 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 formal features of the functional equivalents 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 tensemes 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 tensemes 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 tensemes 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) which 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 tenseme. Thus in Table 114B above, the transfer of yafjual (=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 tensemes being compared. In such tables, there can be no positive interference as far as functions are concerned since only the functions of the English tensemes 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 tenseme 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 tensemes 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 tensemes are those that are missing or are distributed differently in their Arabic functional equivalent tenseme(s), especially those formally closest to these English tensemes.

(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. This will result in such erroneous sentences as:

*My friends they speak English very well.

(2) The Arabic tenseme yafgal may be either preceded or followed by its subject whereas the English tenseme writes may only be preceded by its subject. On the analogy of subjects following yafgal in Arabic, Arab learners of English may produce ungrammatical sentences like:

*Live my friends in Baghdad.

(3) Arabic uses yafgal 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. Arab learners of English will be tempted to

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3This feature exists in all Arabic non-past tensemes and may thus be transferred to their formally equivalent English tensemes. Though the problem will not be stated again in the inventories of learning problems of other non-past English tensemes, 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 tensemes, It is thus to be understood as a potential learning problem with all equivalent English tensemes.

6See pp.197-199 for a discussion on this.
generalize and to use \textit{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 tenseeme \textit{yaf9al} 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 \textit{yaf9al} in Arabic, viz. indicating past time, Arab learners of English may use \textit{writes} to indicate past time after negative particles. This will lead to such errors as:

*We not go to school yesterday.

(B) \textbf{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.

*Idid 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 käna 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 کانا يافتال, 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 کانا يافتال rather than the formal equivalent of wrote, i.e. الفعال, in such situations.

(2) Due to the absence of the sense of tentativeness from the use of الفعال 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:
(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 tenseme 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.
IV. Learning Problems
Inferred from Contrastive Tables

(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
(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 tenseme 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

None
(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 Problems**

**Inferred from Contrastive Tables**

113A & 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.*

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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*, i.e. 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 *fä9al* in such cases.

VII. Learning Problems

Inferred from Contrastive Tables

114A & B

(A) Positive-Interference Problems

1. Arabic uses *yakūnu fā9al* to indicate tentativeness at simultaneous present in Function (1). For reference to ordinary simultaneous present, Arabic
uses *af9al. Arab learners of English may thus transfer the formal features of *af9al 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 nonEarlier aspectual marker of yakunu *af9al 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 *af9al. This will result in such inappropriate sentences as:

*He learns French these days.

(4) Function (6) of yakunu fa9il, 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 yakunu fa9il, 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 fāgīl, 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 fāgīl is only used to indicate tentativeness in simultaneous present. Ordinary simultaneous present is indicated in Arabic by yafūq (=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
IX. Learning Problems
Inferred from Contrastive Tables

(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 tenseme yafāl, 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 yakūn yafāl 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 tenseme has been writing will be difficult both to produce and to understand for

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8 However, 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 yafqal 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 faqal 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 tensemes kāna fāgil and kam yaf9al 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 tensemes.

\(^{10}\)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 Problems
Inferred from Contrastive Tables

119A & 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 tenseme 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 fāgil, 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 fāgil 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 fāgil and since Arabic uses different tensemes 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 Problems**

_Inferred from Contrastive Tables_

121A & 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 Problems
Inferred from Contrastive Tables

(A) Positive-Interference Problems
(1) An Arab learner of English may transfer the terminal earlier aspect of sayakūnu fa9al 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 tenseme will have been writing as no one tenseme 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 tenseme 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.
(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 käna sayakūnu fā9īl and käna 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 käna 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 tensemes 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 tensemes. 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) 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 tensemes in English by only inserting not before the non-past forms of these tensemes.

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1 The 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 of 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.

9. From Problems (II.A.2), (IV.A.1, 2, 3, 4), (VIII.A.2, 3, 4), (X.1.1, 2) and (X.B.1), it can be said that Arab learners of English may find it difficult to use the earlier-past tenseme had written and the simultaneous earlier-past had been writing. This is especially so when these tensemes 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 tenseme writes correctly. They will especially tend to use this tenseme 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 tenseme 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 tenseme 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 tensemes 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 tenseme 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 tensemes has been writing and has written will be problematic, especially when these tensemes 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 tenseme 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 tensemes 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 tensemes, especially those that occur in subordinate clauses. Reported speech in English will consequently present problems to Arab learners. The following underlined tensemes 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 tenses 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 tenses 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 tenses 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 tenses 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 tense can have ultimately to be taught. No one function of a given tense can be said to have been learned until its
relations with other functions within the same tenseme 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/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.
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

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...
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 tensemes that have formal equivalents in Arabic but are distributed differently at certain points. On the other hand, tensemes 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 tensemes 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
tensemes in English and Arabic and then proceed to
show the different transformational rules that produce
the two contrastive surface structures of those tensemes.
At an elementary level of learning, on the other hand,
one could justifiably make use of translation to hold
comparisons between a given tensemes 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 tensemes 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 conversational sessions, skilfully
directed by the teacher towards practising problematic
English tensemes and functions are of great value at
later stages.

(c) With its emphasis on the major role played by inter-
ference 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)\(^1\)

\[^1\] Sentences which do not have temporal adverbials or which use tenses other than the one asked for in the Test are not reported in this Appendix and their numbers are consequently omitted above.

\[^2\] Instead of rewriting the same tensemo in every sentence above, three subsequent dots are used to represent the tense mo 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 tense mo in question is/are then represented by other three dots after the intervening sentence part.
17-09-00 الطالب درسه الان
18-00 علي الدرس الان
21-00 الطالب الان
23-00 علي في هذه اللحظة
24-00 الشعر من سنين
25-00 زيد الرسالة مباهجا
26-00 الطالب الموضوع مسترا
27-00 الناس اربع قضية سنوي
28-00 الادب قصه الان
29-00 محمد الدرس مباهجا
30-00 والد الدرس مباهجا
31-00 محمد الدرس الان
32-00 زيد رسالة مسا
34-00 الشاعر تميدت مباهجا
36-00 الدرس غدا
38-00 الطالب الدرس الان
39-00 اعد درسه في العيد
40-00 احمد الدرس الان
41-00 علي درسه الان
42-00 الدرس الحاضرة الان
43-00 احمد التقارير مباهجا
44-00 أبي الرسالة غدا
46-00 الطالب تميده الان
48-00 محمد درسه مباهجا
التعليم رسالة إلى استاذة الان

التلامذة المحاضرة في هذه الدقيقة

سلم رسالة إلى والده الان

التلميذ فرضه ببوبا

لم يكتب رسالة منذ سنين إلى حيفا

الولد الدرس الصباح

الولد الدرس مباحا

الولد الدرس، رسالة بالاس

الولد رسالة في الساحة العاشرة مباحا اليم

الجراحى تمائده منذ سنة 1918

الولد الدرس، الصباح

محمد الدرس في الصباح

الولد النميدة، اس
1- ولد اس.
2- رسالة في المباح.
3- اني الرسالة مباحاً.
4- إذا كتبته في المباح.
5- يلي الدرس مباحاً.
6- يلي الدرس الاباحي.
7- الطالب درسه اس.
8- كتبته الدرس في المباح.
9- في المباح درسه.
10- محمد راجب البارحة.
11- على الرسالة جم اس.
12- الطالب في المباح.
13- الرسالة في المباح.
14- محمد الدرس سابتاً.
15- الولد الدرس ساباً.
16- درسه اس.
17- الحانكة الان.
18- كتبته الدرس الان.
19- رسالة صباح هذا اليم.
20- كتبته الدرس الان.
21- الولد الدرس صباح اليم.
22- كتبته الدرس الناء المباح الايام.
23- كتبته الدرس الاباحي.
24- كتبته الدرس سابتاً.
25- كتبته النمس سابتاً.
103- محمد راجبه في البحا
104- محمد راجبه الليلة الماضية
105- مرتبة الدرس مباحا
106- رسالة قبل اناسانت
107- التلميذ درسه عندما رابته اسم
108- محمد الدرس مباحا
109- محمد الرسالة مباحا
110- محمد درسه في البحا
111- محمد رسالة قبل اناسانت
112- زيادة الرسالة مباحا
113- الطالب درسه مكررا
114- محمد الدرس اسم
115- الطالب الدرس مباحا
116- خالد رسالة الى والده وهو في بريئة قبل اناسانت الريدن
117- التلميذ فرطه ليلة اسم
118- الولد رسالة في البحا
119- رسالة لإخية مباحا
120- مساء برذره ليلة اسم
121- كتاب رسالة الى إخوة اسم
122- محمد رسالة الى والده مباحا
123- زيادة الرسالة في البحا
124- الولد رسالة لوالده لمية البارحة
- 26 - سليم اَلْجَرَحَةُ قَبْلَ تَخْرِيجَهُ
- 26 - خَالِدَ رَسَالَةَ إِلَى الْبَلَدِ بِاللَّاهِ
- 27 - زَيْدَ رَسَالَةَ الْبَارَحَةِ
- 28 - الرَّجْلُ فَرْنُهُ الْبَارَحَةِ
- 29 - زَيْدَ رَسَالَةَ إِلَى الْبَلَدِ بِاللَّاهِ
- 30 - زَيْدُ الرَّسَالَةَ فِي الْيَمِّ الْمَاضِيِّ

٣٣٣

١ - الْبَيْتُ فِي الصَّبَحِ
٢ - الفَتَّاةُ مِنَ مَبَاحَةَ إِلَى الْمَدْرَسَةِ
٣ - حَنَذَما اَتَبَيَّنَتْ مِنْ دَرَاسَتِهَا إِلَى بَيْتِهَا
٤ - نَجَاءَتْ إِلَى الْمَدْرَسَةِ الْآنِ
٥ - حَنَذَما يَعْمَلُ إِلَى مَكَانِهَا
٦ - إِلَى الْبِيْتِ سَلَامًا
٧ - إِنْذَرتَهُمَا
٨ - فَتَّاةُ فِي السَّاعَةِ العَاَشْرَةِ
٩ - زَيْبَتَهُ إِلَى بَغْدَادَ سَلَامًا
١٠ - تَبَلَّ أَتَأْلِبُهَا
١١ - هَنَّدَ إِلَى الْبَيْتِ الْآنِ
١٢ - الطَّالِبَةُ نَدَّتَ إِلَى الْمَدْرَسَةِ
١٣ - تَبَلَّ ذِهَابِي إِلَى الْحَدِيثَةِ
١٤ - هَنَّدَ إِلَى الْبَيْتِ البَالَاسِ
22- تيل ان تسافر 000 تد
24- عندما اتصل إلى بيك ومباها 000 تد للعمل
27- 000 ليل تد إلى العشائر مباها
29- 000 عندما رايتها بالاس
26- في الساعة العاشرة من مساء اليوم إلى بغداد
26- ليل 000 قبل ظهراً
36- بعد التخرج
37- 000 الطالبة إلى السر المباها
38- بعد التخرج
39- بعد التخرج إلى بغداد
40- سعاد 000 في المباح
43- في الساعة العاشرة
44- هل 000 صديقي الآن؟
46- 000 تد إلى المدرسة تيل ان تسافراوها إلى بغداد
47- يكن 000 حيدة تد في المباح
48- 000 مباها 000 قاطعة تد
49- لا بد أن تسافر بسام في الصباح 000 عندما رايتها بالاس
50- 000 ليل تد بعد التخرج
51- 000 زينب إلى بغداد بعد التخرج
52- الطالبة 000 مباها إلى المدرسة
54- النتيجة بعد التخرج 000 إلى اهلها
55- إذا وصلت إلى المدينة الآن 000 عند تد 000 إلى دارها
56- 000 عند تد إلى المدرسة 000 بسبب ظلالها
58 - 00000 مديتي إلى الحفلة اسم
59 - 00000 رياض 000 إلى الريف عند جدتها بعد احتفالات
20 - 00000 الباحة
21 - 00000 مي 000 إلى بيت أهليها الآن
22 - لودهبت لزيارتها الآن 000 لزيارة والدتها
23 - مباحا 000 إلى عملها
24 - لتوالت من متابعتها الآن 000 النتائج 000 مانحة إلى منزلها
25 - لا تخف في المجرين فانك تكون ذهبت قبل وصولهم
26 - 00000 بالاس
27 - في الساعة العاشرة غدا والدتي 000 إلى السوق
28 - 00000 قد 000 الآن لزيارة زميلتها
29 - 00000 هدئ 000 إلى السينما عندما اتصل إلى بيتنا في الساء

17- كـسـان (قد) كـسـان

1 - 00000 أختي 000 الدروس قبل ان يسافر
2 - 00000 التلميذ 00000 درسه الآن
3 - 00000 درسه قبل النوم
4 - قبل ان يسافر 000 رسالة لنا
5 - سبتمبر 00000 مسحوباته في الغاض
6 - 00000 قاسم 00000 الدرس سابقا
7 - 00000 الصباح 00000 درسه
8 - 00000 مباحا
١٠٠٠ - ابراهيم
١١٠٠ - الرستاق
١٢٠٠ - بالاس
١٣٠٠ - الدرس سابتا
١٤٠٠ - حينما تابعته مباحا
١٥٠٠ - الدرس الآن
١٦٠٠ - قبل أن يسافر
١٧٠٠ - الدرس سابتا
١٨٠٠ - البارحة
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6 - الرسالة في الساعات العاشرة صباحًا.
7 - محمد درس مبكرًا.
8 - زيد عندما رأيته أمس دروسه.
9 - البطل محمد رسالة جيدة صباحًا.
10 - علي درسه سابقا.
11 - زيد الرسالة متاخرًا.
12 - مررسالة من قبل.
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14 - الرسالة قبل السائح.
15 - أحمد كثيراً إلى ذويه قبل عودته إلى الارض الوطن.
16 - روزي، اظهرته في الاستلام الماضي عندما عرض عليه المساعدة.
17 - الطالب، الاطرافه قبل تخرجه.
18 - زي، رسالة للأم وابد، اسم.
19 - مصطفى مقالته، مقالة النهار عندما ناشفة المحرر لتحرير موضع مقالة.
20 - الجواب عندما زرت آخر مرة.
21 - لو جيدة في الامتحان الماضي لما رسب.
22 - زيد الكتاب قبل رفاته بوازن بعيد.
23 - امتحانه لدى وصوله إلى النهاة.
24 - عندما مرتبه بالامس رسالة لوالدته.
25 - رسالتة لولا زيارة له البارحة.
26 - كتابة منذ زمن ليس بعيد.
27 - الشيخ، رسالته قبل رفاته باسبوع.
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2. اختي إلى البصرة غداً
3. مدينتي قبل ان يسافروا والدها إلى بغداد
4. هل غداً؟
5. محمد سيافر غداً
6. ناظمة غداً
7. هندي غداً
8. هل غداً؟
9. اختي غداً
10. هل غداً؟
11. لينغ بعد التخرج
12. اختي غداً
13. هل غداً؟
14. هندي إلى بغداد في الساحة العاشرة في الصباح
15. هل غداً؟ بالنظر بعد أسبوعين
16. البنت الآن
17. صباحاً
18. صباحاً
19. سعاد يوم الأحد القادم إلى بغداد
20. مش في الساحة العاشرة
21. استعداد إلى بغداد صباحاً
٢٢- حنّ حلّ حلّ العطلة الصيفية للبغداد
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6. الساعة العاشرة
7. بعد التخرج بارجل
8. الساعتين مساء
9. هند صباحا
10. السباحة
11. هند الى القاهرة تربة
12. امي غدا الى لندن
13. صيتي غدا لملائمة اهلها
14. السباحة
15. الساعتين الى القاهرة مساء
16. مع زوجها الى استانبول غدا
17. ليلى الى لندن غدا
18. سعاد الى باريس غدا
19. والدتي الى بيروت غدا

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التلميذات غدا الى البصرة
أمل الى الولايات المتحدة غدا
سعد الى البحرين غدا مساء
انها غدا بالرغم من معارضة والدتها
18 - 6 ميل إلى لندن.
19 - 600 ميل إلى بغداد، غداً.
20 - 6، دلال إلى القاهرة، بعد تخرجها.

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٩. 6، ليما إلى الخارج بعد التخرج.
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<td>67</td>
<td>بعد التخرج لولا ونها والدها</td>
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١٩ - ٠٠٠٠ هـ 
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٨ - بضعة أيام

٧ - في الساعة العاشرة

٦ - في الساعة العاشرة

٥ - عندما يتعب العامل و يأتي إلى بيتهم.

٤ - في الصغر.

٣ - في الصغر.

٢ - في الصغر.

١ - في الصغر.

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١٠٠ - في الليل.
27 - الطفل 000 بعد الرضاة
28 - خالد 000 بعد ساعة
29 - محمد 000 بعد الحشا
30 - أرجل 000 مباحا
31 - محمد 000 مباحا
32 - عند الساعة العاشرة زيد
33 - قبل الساعة
34 - الطالب 000 قبل أن يسائر
35 - مباحا
36 - علي 000 في الساعة العاشرة
37 - محمد 000 في المباح
38 - الطفل 000 في المباح
39 - في المباح
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41 - في الساحة العاشرة
42 - في الساحة العاشرة
43 - في الساحة العاشرة
44 - الرجل 000 في المباح
45 - في الساحة العاشرة
46 - في الساحة العاشرة
47 - في الساحة العاشرة
48 - في الساحة العاشرة
49 - في الساحة العاشرة
50 - يزيد 000 في المباح
51 - إلى 000 إن
52 - أحمد 000 يوم استراحته
53 - ليلاً 000 بعد الشبـان
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لا يمكنني قراءة النص بشكل طبيعي.
1- في الساعة العاشرة.
2- محمد.
3- ظهراً.
4- في المباح.
5- يسوع.
6- يسوع في الحديثة.
7- ولد.
8- في المباح.
9- عندما الخلتي باللمس.
10- في الطريق باللمس.
11- في الساعة العاشرة.
12- في الصفحة العاشرة.
13- في الساعة العاشرة.
14- في الصلاة.
15- في المباح.
16- في المباح.
17- أيما كن فيه باللمس.
18- في الصفحة العاشرة.
19- في الصفحة العاشرة.
20- في الصفحة العاشرة.
21- في الصفحة العاشرة.
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42- في الصفحة العاشرة.
43- في الصفحة العاشرة.
44- في الصفحة العاشرة.
45- كائم.
46- في الصفحة العاشرة.
1- في المسافر

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3- في المسافر

4- في المسافر

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16- في المسافر

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18- في المسافر

19- في المسافر

20- في المسافر
الغرنة:
1- في الساحة العاشرة.
2- قبل ان يسافر.
3- الاطلال.
4- بعد عشرين عاما.
5- عندما أصل إلى غزتة.
6- الجزيرة في المباح.
7- إذا ذهبت إلى المدينة بعد الغزبة.
8- الآن.
9- ان.
10- الظرفة.
11- عندما يرحل اهلها منها في السنتلب.
12- الظرفة في المباح.
13- الدار.
14- بعد ان يسافر.
15- الدار.
16- ان.
17- ان في الساحة العاشرة.
18- ان.
19- عندما تعمل في آخر الليل.
20- هذه القرية.
21- الدار.
22- بعد تركها.
23- القرية.
24- قبل ان يسافر.
25- الدار.
26- في المباح.
27- الدار.
28- ان.
29- الان.
30- ان.
01 - الغرفة... قبل ان يغادر محمد...
02 - بعد الخروج...
03 - الغرفة... الآن...
04 - الدار... صباحاً...
05 - الدار... عندما يسارأهنها في الصباح ال غيربلك...
06 - صباحاً... في الصباح...
07 - الحديقة... في الصباح...
08 - المسجد... في الساحة العاشرة...
09 - السكان العاشرة... من السكان حين يعرف خطرها...
10 - السكان... بعد غياب أهلها طول السنين...
11 - الكتب... بعد الخروج...
12 - إذا كان نزودا تد اجبروا على هجر اراضي سانتها فانها لن...
13 - ضارهم الآن...
14 - الصباح... في فصل الشتاء...
15 - الصباح... في فصل الشتاء...
16 - التنامي في فصل الشتاء...
17 - الصباح... في الصباح...
18 - القادمون... إذا تركنا الناس غداً...
19 - المدينة... عندما يتركنا الأعداء...
20 - المدارس... في عطلة الصيف...
21 - إلى... في العام المقبل...
22 - القرية... من السكان عدد في هذا الوقت من السنة...
23 - هذه... خلال غياب مروان واجدًا...
16 - للتوبة عادة ٠ ٠ ٠ ٠ ٠ ني السنة. 
17 - لابد أن ٠ ٠ ٠ ٠ هذه البلاد ٠ ٠ ٠ ٠ زمن بعيد.
18 - لدنا ٠ ٠ ٠ ٠ الدار ٠ ٠ ٠ ٠ بعد انتقالنا منها.
19 - في مثل هذا الوقت من كل عام ٠ ٠ ٠ ٠ هذه التوبة.
20 - لوده إلى زيارتنا التوبة بعد تمرن الزمان.

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٢ - عندما رأيتها بالعاص.
٣ - الزجاجة ٠ ٠ ٠ ٠ ٠ الآن.
٤ - الجزء ٠ ٠ ٠ ٠ ٠ عندما مسأله الطالب صباحا.
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١٢ - حينما فتحت الباب.
١٣ - الزجاجة ٠ ٠ ٠ ٠ اس.
١٤ - الزجاجة ٠ ٠ ٠ ٠ الآن.
١٥ - الرحلة ٠ ٠ ٠ ٠ الآن.
١٦ - الزجاجة ٠ ٠ ٠ ٠ عندما أكتب الدرس.
١٧ - الزجاجة ٠ ٠ ٠ ٠ سابتا.
لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.
49 - الساعة 000 في المباح
50 - الساعة 000 الصباح
51 - الساعة 000 الرياح
52 - الساعة 000 السماحة
53 - الساعة 000 السماحة
54 - الساعة 000 السماحة
55 - الساعة 000 السماحة
56 - الساعة 000 السماحة
57 - الساعة 000 السماحة
58 - السماحة 000 عندما رأيتها مباحاً
59 - الساعة 000 عندما هرب المجرم من البيت
60 - الساعة 000 عندما رجعت البارحة
61 - الساعة 000 عندما وضع عليها الكتب
62 - الساعة 000 حتى قبل أن يأتي السيء
63 - الساعة 000 قيل وصلى إلى الدار بالأساس
64 - الساعة 000 في الحادية عشرة قبل الظهر
65 - الساعة 000 قيل ام اء
66 - الساعة 000 بعد انتهاء حفلة السعد العاشرة
67 - الساعة 000 عندما رأيتها اسقاطاً بينها
68 - الساعة 000 عندما ابيضت تبداً بينها
69 - الساعة 000 عندما اخذتها من زيد بذر اس
70 - الساعة 000 عندما ادخل إلى غرفتها
71 - الساعة 000 قبل ان ينام
72 - الساعة 000 قبل ان ينام
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98 - الساعة 000 قبل ان ينام
99 - الساعة 000 قبل ان ينام
100 - الساعة 000 قبل ان ينام
18-00-00 ظهرٌ، 0000 صبحًا.

17-00-00 يَدٌ، 0000 الآن.

16-00-00 محمد 0000 الموضوع في الساعة العاشرة.

15-00-00 الطالب 0000 الآن.

14-00-00 بعد الغداء 0000 قمة.

13-00-00 أحمد 0000 في غرنته عندما يبني امتحانه.

12-00-00 الطالب 0000 الآن.

11-00-00 محمد 0000 اللحظة.

10-00-00 في العام القادم.

9-00-00 بعد التخرج 0000 المعلم 0000 كلما يجد، يتأجّب بطلبته.

8-00-00 أحمد 0000 في الساعة العاشرة.

7-00-00 الآن.

6-00-00 كَلَا زرت 0000 في المباح.

5-00-00 كل طالب بعد التخرج 0000 مؤلفات قيّمة.

4-00-00 زيد 0000 درسه الآن.

3-00-00 علي بعد التخرج 0000 ما ينشأ في الجرائد.

2-00-00 زيد 0000 مسألة.

1-00-00 المدير في المباح.

0-00-00 رسالة إلى أخيه الآن.

0-00-00 الإديب 0000 نَي مثل هذه الساعة من المباح.

0-00-00 مروان 0000 المهاجرات كل يوم مثل هذه الساعة.
١٠ - نبيل: عندما تذهب إليه اليوم.
١١ - حادة: الواحدة أحدث مثلاً في مثل هذا الوقت.
١٢ - كلما انزهبه زيارته: رسالة لوالده.
١٣ - في الساعة: زيد: الرسالة لوالديه.
١٤ - الطالب: راجبه المدرسي في الساعة الخمسة بعد الظهر من كل يوم.
١٥ - ناجي: وظيفته عند مدينته الآن.
١٦ - بينما أكون درسني غرفتي: عزيم: رسالة.
١٧ - زيد: منكرته اليوم: في هذه الساعة من كل يوم.

كسان يكتب

١ - الغرد: الدسر الآن.
٢ - رسالة قيل ان يسائر.
٣ - الذي: الشعر سبت.
٤ - الليل: شعره في الليل.
٥ - الطالب: صباح.
٦ - محمد: عندما رأيته اس.
٧ - محمد: درسه قبل ساعة.
٨ - في زينت المباح تمددة.
٩ - محمد: الوظيفة صباحاً.
١٠ - أم: الصباح.
١١ - علي: رسالة في الصباح.
١٢ - محمد: عندما رأيته اس.
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1. يُكتب الرسالة سابقاً.
2. قد يُبرأ، بالعكس.
3. مثلاً في المباح.
4. محمد.
5. دُرست قبل أن يسفر.
6. رسالتي في المباح.
7. علي.
8. في اللوحة قبل تليل.
9. ولد.
10. تليل.
11. رسولتي.
12. لم يُكتب.
13. هنافًا، بمثابة.
14. متى عندما ما يُتربع.
15. رسة القلعة.
16. دخلت والدته نجاً إلى قرته.
17. في فصله.
18. عندما يُبرأ.
19. لن يُتاخر.
20. الفرض.
21. تأملاته عند الغروب.
22. عندما يُكرر، بالعكس.
23. رسالةً.
24. سليم.
25. رسالتي إلى والده عندما نزرت الباحة.
26. نزرت باب.
27. زيد.
28. نقلت، وما أصابته النوبة.

١٣٣
2- في الساعة العاشرة 11:00
3- محمد عندما ينتهي من مطالعة كتابه آخر.
4- الباب من جديد بعد التخرج.
5- الطالب درسه غدا.
6- محمد الكتاب غدا.
7- الولد في الساعة العاشرة.
8- مباحاً.
9- الطالب درسه غدا.
10- مباحاً.
11- مباحاً.
12- امرو الكتاب الآن.
13- المحاضرة اليوم.
14- الولد.
15- محمد بعد التخرج.
16- الطالب درسه مباحاً.
17- طالك أحمد في السنة القادمة.
18- بعد التخرج.
19- الطالب.
20- المدرس.
21- كتب "عديدة للافادة ثلاثة.
22- خالد.
23- الدرس بعد الظهر.
24- بعد السا.
25- الخاب في الساعة العاشرة.
26- ختامه.
930

22- فلی 1000 درس في الساعة العاشرة
20- أحمد 1000 غداً
43- نبأ السباح 1000 الرسالة
44- الخطب 1000 الآن
45- اخرى 1000 كتاب "في الساعة العاشرة مساءً"
28- الطالب في الساعة العاشرة 1000 دروسه
49- في الابحاج 1000 ترك العبد
51- في 1000 بعد التخرج
52- المجتهد 1000 الدروس مباحاً
53- كتابه كل يوم
54- محمد 1000 المجلة في الساعة العاشرة
55- خالد 1000 عندما أزره غداً
56- سمير 1000 طوال نهار قد ليستعد للإشعات النهائي
57- لذا ذهبتهالي الآن
58- اخرى الجريدة عندما تمر به غداً
59- بشار 1000 كتاب البخلاء للداحلي غداً
60- نبيل 1000 في الكتبية مباحاً
61- زيد 1000 في الساعة العاشرة هذا الساء
62- لوزنه بعد الغداً 1000 الكتاب الذي اعتذره اياه
63- في الكتبية عندما تأتي في الساء
64- عندما تذهب لزيارة سليم 1000 في الكتاب
65- غداً مباحاً "لنجده لا إنه 1000 في الكتبية
66- سليم 1000 درسه في البيت عند نهابتنا إلى المدرسة غداً"
18 - في المكتبة مباحاً
19 - في المكتبة - لوال يوم عید

الخ: نسيان ملوك يثق

20 - درسه في الساعة العاشرة
21 - الشعر بعد الإله
22 - محمد مباحا لوان احدا ابنته
23 - علي قيل ان يسافر
24 - حسين الدارس عندما راحته بالاسم
25 - في الساعة العاشرة
26 - اللان ظه ان يسافر
27 - الطالب قبل ان يسافر
28 - بعد التخرج
29 - الان
30 - الطالب الرسالة قبل ان يسافر
31 - خالد في المباح لوان سهرة اس
32 - زكي الان لوان مور مدته عليه
33 - دريد شعراء: "ان لوان مرحه النافج"  
34 - مباحا لوان دخل سيده بيكرا
35 - الان لوان استلمه تلك السخاية في المباح
36 - اس لوان زله بمحده
37 - بعد ان تركنه رسالة الى والده
38 - الكتاب قبل سنده لوان تحل به نوبة تليبة
39 - طريف رسالته بعد ذهاب ماحته
١١ - ٠٠٠ ٠٠٠ حسن ٠٠٠ لولا مرحبا بالأسف
١٧ - ٠٠٠ ٠٠٠ اطروحه بعد التخرج لولا الامام Interpreter الذي امامه
١٨ - ٠٠٠ ٠٠٠ نزده في الساعه لولا بغاله النعام
٢١ - لولا الحادث الطائر ٠٠٠ ٠٠٠ زيد ٠٠٠ فكرته الآن
٢٠ - ٠٠٠ ٠٠٠ رسالة الى صديقه البارحة

٢٧ - سيكور

١ - ٠٠٠ ٠٠٠ اخي ٠٠٠ في المباح
٢ - ٠٠٠ ٠٠٠ في المباح
٣ - الطالب ٠٠٠ قيل انذهب لتوديعه
٥ - ٠٠٠ الليلة ٠٠٠ الى القاهرة
٨ - بعد الاعضاء
١٢ - ٠٠٠ ٠٠٠ محمد ٠٠٠ الان
١٣ - عندما ازوره في الاعضاء مباحا
٥١ - ٠٠٠ ٠٠٠ ناظم ٠٠٠ الى القاهرة الان
١٨ - بعد التخرج
٦٠ - في العيد القادم
٦١ - ٠٠٠ ٠٠٠ محمد قد ٠٠٠ مباحا
٦٢ - في الساعه الاعضاء
٦٣ - محمد ٠٠٠ مباحا في الليل
٦٥ - ٠٠٠ ٠٠٠ عمره ٠٠٠ بالقطار مباحا
٦٧ - الان ٠٠٠ على طريق ٠٠٠ الى بغداد
٦٨ - ٠٠٠ ٠٠٠ الليلة قد
30 - التيار تد إلى بغداد مباحاً

31 - في السا ر تد زيد تد

32 - أخبرني ان اخاوا إلى الوطن تقبل نهاية العام

33 - ستكون تدق سائرتي المباح

34 - تقبل ان سائرنا أخو

35 - مباحاً أحمد تد إلى بغداد

36 - عنا

37 - بعد التخرج

38 - عني النهار

39 - عندما تأمل الظهيرة في الصباح

40 - عندما يأتي الربيع

41 - خالد بعد التخرج إلى لندن

42 - بي تد ليلة

43 - النائدم تد النهار

44 - محمد إلى بغداد تقبل نهاية الحظة الصينية القادمة

45 - مبروك تد إلى لندن تفضل اخفيه غدا

46 - عندما تعودين اخرك تد

47 - زكي إلى القاهرة الآن

48 - إلى مبروك اذهب الى مقابلة غدا

49 - ده ومزينا ببه

50 - في المساء إذا رائق والداه

51 - عندما تذهب لزيارة أهلك عشية اليوم

52 - أذهب إلى الطيارين لا إنه عند وسليك

53 - أذهب إلى الطيارين لا إنه عند وسليك
٠٠٠-٠٠٠ [٢٧] قبل مغادرة اخته البلاد
٠٠٠-٠٠٠ [٢٨] الليل إذا لم تتأخر الطائرة
٠٠٠-٠٠٠ [٢٩] إلى قريته عندما نزوره

١٦٠ كله [١٦٠] يكون مسافر

٠٦٠-٠٠٠ الطالب ٠٠٠-٠٠٠ محمد ٠٠٠ مباحأ
٠٠٠-٠٠٠ في المباحأ
٠٠٠-٠٠٠ الطالب ٠٠٠ هذأ
٠٠٠-٠٠٠ أسل
٠٠٠-٠٠٠ الرجل ٠٠٠ في المباحأ
٠٠٠-٠٠٠ محمد ٠٠٠ إلى البحيرة الآن
٠٠٠-٠٠٠ لول الحقيقة ل٠٠٠٠٠ أسس
٠٠٠-٠٠٠ لولا ما حدث عصر السم ٠٠٠٠٠ اليوم
٠٠٠-٠٠٠ الطالب ٠٠٠ مساء
٠٠٠-٠٠٠ الطالب ٠٠٠ سبأة
٠٠٠-٠٠٠ محمد ٠٠٠ عندما رأيته بالأسس
٠٠٠-٠٠٠ أحمد ٠٠٠ في ذلك الوقت
٠٠٠-٠٠٠ محمد ٠٠٠ الان لولا تأخر سير القطار
٠٠٠-٠٠٠ صباحأ
٠٠٠-٠٠٠ اخى إلى اوربا البارحة لولا نتائجه صديقه
٠٠٠-٠٠٠ لولا موت والده
٠٠٠-٠٠٠ الان لولا تأخر الطائرة
22 - الباحة لولا العطش الذي اصاب ظائرته
23 - بعد التخرج لولا افلاج الطريق
24 - لولا نشب الحرب إلى جدة الآن
25 - لولا وحدة الباطن
26 - الباحة
27 - قال بأنه بعد تخرجه لولا رئة والده
28 - في الساعة العاشرة لولا التعطيل في السيارة
29 - عندما ذهبنا لزيارة الباحة 00.00.00.00.

---

السماحة

1 - اختي، الآن.
2 - في الساعة العاشرة.
3 - عندما تأتينا سأكون نائمة.
4 - ليلي.
5 - الليلة، الآن.
6 - مدينتي.
7 - ليلي.
8 - مساء.
9 - الطائفة.
10 - عندما تخرج أمي إلى العمل.
11 - عند الغرب.
12 - اختي في الساعة العاشرة مباحا.
13 - ليلي.
14 - مباحا.
15 - النائمة.
16 - في الساعة العاشرة.
17 - في الساعة العاشرة.
18 - هي.
19 - الزهراء.
20 - الآن.
1 - زئب
2 - البنت
3 - مسجع
4 - ساعة العاشرة
5 - ناية
6 - غداً ظهرًا
7 - الليلة
8 - مسجع
9 - عند حلول الساعة التاسعة
10 - بيل
11 - الليل
12 - الليلة
13 - مسجع
14 - الليل
15 - الليلة
16 - ساعة
17 - الليلة
18 - ساعة
19 - غداً
20 - الليلة
21 - الليلة
22 - غداً
23 - ساعة
24 - غداً
25 - الليلة
26 - في السماء
27 - البنت
28 - في السماء
29 - البنت
30 - في السماء
44 - تخيّلني الساعة العاشرة.
45 - اعتقد بأنها في الساعة العاشرة.
46 - واحدة حتى الساعة العاشرة.
47 - كُرِيّة في الصباح.
48 - ناطقة في الصباح.
49 - في الساعة العاشرة.
50 - الليل في المباح الباكر.
51 - زبن في الساعة العاشرة.
52 - الناقة.
53 - الضرب بعد الغروب.
54 - جريت فاطمة في الساعة العاشرة مباحاً.
55 - شتى بي عند ولم يأت إلى المنزل في الساء.
56 - الطائفة.
57 - الانتظار.
58 - تخيّلني الساء.
59 - عمل مرهق طوال النهار.
60 - الليل عند ذهابك.
61 - عندما يملّ أي.*
62 - لا تذهب الآن لزيارتها لأنها
63 - من الأفضل الانتظار لزيارتها بعد الظهر لأنها
64 - طلعت.
65 - طلعت في ولم يأت.
66 - من الأفضل عدم الاتصال بها ظهرًا لأنها
67 - في المباح لذا شنّاً أزيرًا.
68 - عندما تخط الطائر في المطر.
69 -
III

1- إذا الطفل في الصباح

2- بعد العشاء

3- إذا انذهب إليه

4- في الساعة العاشرة

5- الولد

6- إذا زيد بعد أن رأيته بالاسلام

7- مباحا

8- بعد رحيله لولا تأخره

9- في الساعة العاشرة

10- البلد

11- إذا رأيته بالاسلام

12- الولد

13- في الصباح

14- إذا ذلك

15- الولد

16- إذا طالبها الأبن لولا صوت حديثه والده

17- إنها الأبن لولا الفجوة التي ابتعتها

18- فيدي الأبن لولا زيارته مدتيتته المصغرة

19- في اليوأثن التلفون في الساعة العاشرة

20- الولد

21- ليلة أمس لولا الحفل الصباح الذي كان يجوار منزله

22- بعد تليل لولا زيارة اخية

23- الأبن لولا انسياج الليلة في الحي المجاور
لولا ضحى المخبر ظهر

27 - قال بأنه بعد انتهاء هذا الدرس لولا زيارته ماجدة

28 - الآن لولا الغداء في الخارج

29 - الآن لولا الضجة التي احثتها بوق السيارة

30 - الآن هي منهج منهج

1 - الآن الدروس 10:00

2 - الآن الدروس 10:00

3 - الآن الدروس 10:00

4 - الدروس بعد قراءته 10:00

5 - بعد الشرح 10:00

6 - بعد تليل 10:00

7 - الآن الدروس 10:00

8 - عندما تعيد قراءة الدروس 10:00

9 - شرح الدروس في الصباح 10:00

10 - الدروس في الصباح 10:00

11 - الدروس بعد تليل 10:00

12 - الدروس في الصباح 10:00

13 - كل شيء 10:00 عندما ارك فداً
16- شرح المقرر

17- المراجعة

18- الامتحان

19- التخرج

20- تزويدي

21- دراسات

22- المبادئ

23- الامتحان

24- الامتحان

25- الامتحان

26- الامتحان

27- الامتحان

28- الامتحان

29- الامتحان

30- الامتحان

31- الامتحان

32- الامتحان

33- الامتحان

34- الامتحان

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41- الامتحان

42- الامتحان

43- الامتحان

44- الامتحان

45- الامتحان

46- الامتحان

47- الامتحان

48- الامتحان

49- الامتحان

50- الامتحان

51- الامتحان

52- إعلان
1- الدرس 1000 بعد النائمة
2- الموضوع 1000 الآن
3- الدرس 1000 أما مرتين
4- الدرس 1000 إذا فتحت الدراسة
5- الدرس 1000 بعد أن فتحت الدراسة عند الظهر
6- الدرس 1000 عند الميت عند الظهر
7- موضوع المناقشة عند الجمع بعد من
8- الدرس 1000 غدا
9- الدرس 1000 بعد أن فتحت الدراسة
10- الدرس 1000 بعد شرح المدرس
11- الدرس 1000 غدا بعد شرح المعلم
12- الدرس 1000 بعد درس مع الاستاذ مرارا
13- الدرس 1000 بعد شرح مرة ثانية
14- الدرس 1000 عندما يفسره الاستاذ
15- الدرس 1000 عندما اقرأ مرة ثانية
16- الدرس 1000 بعد أن فتحت الدراسة
17- كان نقطة مزعوم
18- العجم 1000 سبأ
19- سبأ
20- في المعركة الآن ولا خذائه
21- في المعركة
22- سبأ
5 - تجنّب الجمال في العبّار.
6 - الحرف. سبأ.
7 - لولا زيادة قوة العدو، في المعركة الآن.
8 - لولا عزهك، البطل، فقدنا، في جولته الأخيرة بالبلد.
9 - الولد البجاه، وقت الحرب.
10 - العدو، منذ زمن بعيد لولا ضعفنا المعنى.
11 - الفيل الأسود.
12 - الطالب.
13 - بعد التخرج.
14 - بعد التخرج لولا شجاعته.
15 - البطل، سبأ.
16 - لولا مساعدة أخريته له حينذاك.
17 - كانت فرنسا ستكون مسؤولة لولا تدخل أمريكا في الحرب العالمية الثانية.
18 - لولا ضرورة أخري له بالبلد.
19 - لولا تدخل الشرطة البارجة.
20 - لولا تدخل أخيخ باللحظة الأخيرة.
21 - لولا تدخل أصحابه في آخر لحظة.
22 - الآن لولا مساعدة صديقه.
23 - بالبلد، لولا مساعدة الحظ له.
24 - لولا المساعدة الخارجية.
25 - هذا المساعدة.
26 - لولا مساعدتي ياهم.
27 - بعد المعركة لولا مناصري في بلده.
28 - لولا لعبة الحظ.
29 - زيد.
30 - في الأمام، عندما أصبح في رجله.
APPENDIX C

FORMATS OF THE TWO ARABIC EXPERIMENTAL TESTS

Test: Ono

11-كان يكتب
12- تكون هيئة
13-كان سنائير
14- سيكون سنائير
15- كان (نذ) كتب
16- كانت مكسورة
17- سيكون ضائع
18- كان سيكون نائم
19- كان سيكون يكتب
20- تكون مهجورة

- كتب
- سيكون يكتب
- ستكون نائمة
- يكون مهجور
攸ال الإجابة لاحظ ما يلي بكل عنونة رجل: 

- الإجابة داخل الإجابة كل جملة من الجمل أدناه موجودة في صيغة الماضي للشخص الثالث المذكر. ومن ثم تسجيل الإجابة بالمطابقة ان تحرّك الفعل حسب مطلبات كل جملة، أي صيغة فعلية أخرى، مثل: يكتب، كان يكتب، كان (نهج) كتب، سافر، سافر، كان سافر، كان سيكون، سيكون، يكون مفتتح 1000 ألف. وكذلك بالمطابقة ان تضع الفعل في حالة المخاطب والمتهم، وفي الغرفة أو المسكن أو الج(SE)، وكذلك في الموضع والأمر.

- تخطيط ان تتم أو تظاهران جمل الكلمات في كل من الجمل أدناه إذا ما

- دمت الحاجة لذلك

1- اذا (فنا) هذا الكتاب في الماضي.
2- ابي (ذهب) إلى السينما كل أسبوع عندما كان شابا.
3- عنه (جلس) بالحديثة عندما مرت عليه دار باباس.
4- قال بأنه (سافر) بعد تخرجه لولا رثة والده.
5- نحن (سبق) هذه الأغنية كثيراً هذه الأيام.
6- اذا (شاهد) هذا الفيلم مرتين قبل الآن.
7- الإطلال (كبر) بسرية عادة.
8- اذا (سافر) سلم إلى بغداد بالمستقل، فانه سيظل النفس البغدادي حتى.
9- (سافر) سلم إلى بغداد ندا.
10- لو (درس) جيداً في العام الماضي لما رسب.
1- احتدم تركته بالاسم (كتب) رسالة الى والدته بعد تليله. ولكن بيدورائه تد
في رأيه بعد مغادريه.
2- رسلة عندما انتهى التيار الكهربائي في الليلة الماضية.
3- وصل (سانتر) سليم الى بغداد سابقا.
4- هولا بزعل(ذهب) الا السينما مرة واحدة كل شهر.
5- اعتقد انا لنجد في البيت عند ذهابنا غدا! انها (قرأ) في الكتبة حينذاك.
6- انا (سمع) هذه الأغنية عدة مرات من قبل.
7- درس) سلم في الكتبة طوال يوم امس.
8- هو (سانتر) في اثيدية بعد الان.
9- اخي الى بغداد قبل سفري الى بيها في الاسبوع الماضي.
10- قال انا الحاضرة (انتهى) الإزلولا استلة الحاضرين الكثيرة.
11- زي (ذهب) الى السينما معى بعد نهاية الاحسان.
12- اذا (زور) المعرض بما بالاسبوع القادم.
13- (أنهى) سلم الكتاب تيف الساعة الخامسة مدة.
14- سلم (قرأ) بالكتبة طوال يوم القد.
15- هي (كتب) رسالة الى امي الان.
16- هذه الشجرة كبيرة في السنة الماضية.
17- سلم طوال الاسبوع الماضية.
18- سلم (قرأ) كتبها هذه الامام.
19- نبل الى الدربين اس.
20- ان الباب (كسر) قبل وصولي الى الدار بالاسم.
APPENDIX D
ARABIC TRANSLATION OF ENGLISH SENTENCES
IN THE GENERAL INVENTORY OF TENSEMES*

I. BASIC PRESENT : WRITES

(A) Systematic Functions

(1.1) 

تشتغل الساعة بالندخل الآن.

إنها تشغيل الآن.

إن يكساد ينضج الآن.

إن يعيش بجد هذه الأيام.

إنها لا تعيش بجد هذه الأيام.

(2.1)

نبذة الصلم بالتخاركل مشاه.

في حالة نهاية الأسبوع يذهب بعيد مع الكلب الى كل مكان.

(3.1)

هي تذكرب للرئيكل سبت.

مويذهساب الى الاتحاد كل يوم.

مويذهساب الى هنا دائما.

(3.2)

تشتغل الساعة طول اليوم إذا ما ملتها بالسماح.

(3.3)

(3.4)

(3.5)

(4.1)

(4.2)

(B) Non-Systematic Functions

(1.1)

مويذهساب الى البيت جدا.

*The sentences are given here under the different headings of the English tenses 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.
II. BASIC PAST: WROTE

(A) Systematic Functions

(1.1) Wrote

(1.2) Wrote

(1.3) Wrote

(1.4) Wrote

(2.1) Wrote

(2.2) Wrote

(3.1) Wrote

(3.2) Wrote

(4.1) Wrote

(4.2) Wrote

(4.3) Wrote

(4.4) Wrote
(B) *Non-Systematic Functions*

(1.1) We went to the house but we didn't find the cat.

(1.2) We went to the house but we didn't find the cat.

(1.3) We went to the house but we didn't find the cat.

(1.4) We went to the house but we didn't find the cat.

(1.5) We went to the house but we didn't find the cat.

(2.1) We went to the house but we didn't find the cat.

(2.2) We went to the house but we didn't find the cat.

(2.3) We went to the house but we didn't find the cat.

(2.4) We went to the house but we didn't find the cat.

(3.1) We went to the house but we didn't find the cat.

(3.2) We went to the house but we didn't find the cat.

(3.3) We went to the house but we didn't find the cat.

(3.4) We went to the house but we didn't find the cat.

III. *EARLIER PRESENT* : HAS WRITTEN

(A) *Systematic Functions*

(1.1) We went to the house but we didn't find the cat.

(1.2) We went to the house but we didn't find the cat.

(1.3) We went to the house but we didn't find the cat.

(2.1) We went to the house but we didn't find the cat.

(2.2) We went to the house but we didn't find the cat.

(2.3) We went to the house but we didn't find the cat.

(3.1) We went to the house but we didn't find the cat.

(3.2) We went to the house but we didn't find the cat.

(3.3) We went to the house but we didn't find the cat.

(3.4) We went to the house but we didn't find the cat.
(B) Non-Systematic Functions

(1.1) 

(1.2) 

(2.1) 

(2.2) 

(3.1) 

IV. EARLIER PAST: HAD WRITTEN

(A) Systematic Functions

(1.1) 

(1.2) 

(1.3) 

(1.4) 

(1.5) 

(1.6) 

(1.7) 

(1.8) 

(1.9) 

(1.10) 

(B) Non-Systematic Functions

(1.1) 

(1.2) 

(1.3)
V. LATER PRESENT: WILL WRITE

(A) Systematic Functions

(1.1)  
(1.2)  
(1.3)  
(1.4)  
(1.5)  
(1.6)  

(B) Non-Systematic Functions

(1.1)  
(1.2)  
(1.3)  
(1.4)  
(1.5)  
(1.6)  

950
VI. LATER PAST: WOULD WRITE

(A) Systematic Functions

(1.1) تال بأنه سيدهد إلى السينما هذا الصباح.
(1.2) تال بأنه سيدهد مساء الغد.
(1.3) تال بأنه سيدهد بعد أن نصل.
(1.4) ودعت باني سيدند في ما بعد.
(1.5) ودعت باني سيدند ثانية.

(B) Non-Systematic Functions

(1.1) سيدوء بعد أن ننتها لواستطاوا.
(1.2) لوأتي سيدند حالياً.
(1.3) سيدند للترحل في الختام.
(1.4) سيدندي الأسابيع القادمة لواستطعت.
(1.5) سيدندي خلال النهار وليس الساب.
(2.1) كنت سيدندي ملك ولكن عندي شي آخر هذا المساء.
(2.2) كنت سيدندي في الأسابيع القادمة ولكنني ستنكر في إجازة.
(2.3) كنت سيدندي للسينما بعد الشاي لولا ارتباطنا.
VII. SIMULTANEOUS PRESENT : IS WRITING

(A) Systematic Functions

(1.1) Systematic Functions.

(1.2) The functions are written in prose.

(1.3) The functions are written in a book.

(1.4) The functions are written in a manuscript.

(1.5) The functions are written in a manuscript.

(1.6) The functions are written in a manuscript.

(1.7) The functions are written in a manuscript.

(2.1) The functions are written in a manuscript.

(2.2) The functions are written in a manuscript.

(2.3) The functions are written in a manuscript.

(3.1) The functions are written in a manuscript.

(3.2) The functions are written in a manuscript.

(3.3) The functions are written in a manuscript.

(3.4) The functions are written in a manuscript.
(B) Non-Systematic Functions

(1.1) 
(1.2) 
(1.3) 
(1.4) 
(1.5) 
(1.6) 
(2.1) 

VIII. SIMULTANEOUS PAST : WAS WRITING

(A) Systematic Functions

(1.1) 
(1.2) 
(1.3) 
(1.4) 
(1.5) 
(2.1) 
(2.2) 
(2.3) 

(B) Non-Systematic Functions

(1.1) 
(1.2) 
(1.3)
IX. SIMULTANEOUS EARLIER-PRESENT: HAS BEEN WRITING

(A) Systematic Functions

(1.1) هويعشتغل في تلك السيرة منذ أكثر من أسبوع الآن.
(1.2) هي تشغيل طوال اليوم استعدادًا للإمتحانات القادمة.
(1.3) هويعشتغل في هذه المقالة منذ فترة طويلة.
(1.4) هويعشتغل بدون توقف منذ الأمس.
(1.5) هي تشغيل باستمرار.
(1.6) موسائي إلى هنا منذ فترة.

(B) Non-Systematic Functions

إنّني أعيش لثلاث ساعات في الساعة الثالثة في الظهر.

X. SIMULTANEOUS EARLIER-PAST: HAD BEEN WRITING

(A) Systematic Functions

(1.1) كنتُأتراً السبات في نهاية المقدمة، الأرجاء البابكر.
(1.2) كانوا يشعرواً عندما دخَّل البحر.
(1.3) كنتُأتراً طوال اليوم.
(1.4) كنتُأتراً ذلك الجزء من الكتاب بالإمساك.
(1.5) كنتُأتراً تأثيرًا على أن أقطع النظر الكبريائي.
(2.1) كان بسرعة قبل الغداء.
(2.2) كان بسرعة قبل أن نسأ.
(2.3) قبل أن نفعل بالأسـم كنتُأتراً للجلة.
XI. SIMULTANEOUS LATER-PRESENT: WILL BE WRITING

(A) Systematic Functions

(1.1)

(G) ساكن بـكـتـبـا الذي أُعِرِث له

(1.2)

(1.3)

(1.4)

(1.5)

(1.6)

(1.7)

(1.8)

(2.1)

(B) Non-Systematic Functions

(1.1)

(1.2)

(1.3)

(1.4)

(2.1)
XII. SIMULTANEOUS LATER-PAST: WOULD BE WRITING

(A) Systematic Functions

(1.1) لم نقل حول ذلك لأنه سيبغادرني مايس.
(1.2) أخبرته باني سيبغادرني نهاية الشهر.
(1.3) أخبرني بأنه سيبغادرنا.
(1.4) قال بأنه سيبغادر بالأسه ولكن لم يفعل.
(1.5) قال بأنه سيبغادر حينما يعمر النتيجة.
(1.6) قال جيم باكستربنائه سيرك ينجز هذا الموسم.
(1.7) عندما وصل كأنوا سيبغادرون.

(B) Non-Systematic Functions

(2.1) كنت سيبغادر الجامعة في أول حزيران لولا شهادة تاريخ العلوم.
(2.2) كنت سيبغادرنا لولا مرافقنا.
(2.3) كنت سيبغادر الوطن هذا العام لولا أستغل في كلاسكو.
(2.4) كنت سيبغادرنا لولا إضراب التظاهرات.

سيغادر لستكلدة في حزيران لاستطاع أن يحمل على نفس الوظيفة في مكان آخر.

سيغادر حالاً لاستلتح.
سيغادر خلال أسبوعين.
سيغادر للمباراة في الرابعة بعد الظهيرة.
الساعة السادسة

(3.1) كانت سامراء في الآن لونت حزت أمتعتي.
(3.2) لوى أن كيمن بالأنظروا كنت سامراء بقتار السادسة والربع.

هذه الليلة.

(3.3) كنت سامراء الآن لوم يكنوا وملوا قبل خمس دقائق.
(3.4) كنت سامراء الآن لون كان لازال علي أن أكون هذه الجملة.
(4.1) سامراء بعد انتهاء البرنامج في السابعة.
(4.2) سامراء حالا بعد الدراسة.
(5.1) سامراء المرحلة قبل ذلك الوقت.
(5.2) سامراء قبل نهاية الامتحانات.
(6.1) كنت سامراء قبل ذلك لوم بتحتم علي أن أكون هذا.
(6.2) كنت سامراء قبل ذلك ولأتي سأتأكد أحد الأشخاص في الساعة الخامسة.

عادةً كنت سامراء في نهاية الأسبوع.

في الثالثة من يوم السبت كنت عادةً أن أسيبالي البيت.

XIII. PRE-LATER PRESENT: WILL HAVE WRITTEN

(A) Systematic Functions

(1.1) فداً سامراء أنني العمل بالسارة.
(1.2) سامراء أنني هذا الاستثناء عندما يدق جرس الخداء.
(1.3) في الشهر القادم سامراء أنهيت موري.
(1.4) أرجو مخلماً بناءً سامراء أنهيت تجميل الشقة عندما أصل لأسكنها.
(1.5)  Si dōkān anēṣina haša ḫannel ʿaʿzāna ẖafāʾ."  
(1.6)  Si dōkān jān ṭad ḫanneṣa ṭibl ʿaʿzāna ẖaḍār.  
(1.7)  Si dōkān jān ṭad ḫanneṣa ṭibl ʿaʿzāna ẖaḍār.  

(B) Non-Systematic Functions  

(1.1)  Bābd ṭaḥāṣa si dōkān anēṣina ṭuṭama ẖa.  
(1.2)  Si dōkān anēṣina haša ẖaḥir ʿaʿzāna ẖaḏir tā ẖa ḫāʾir yahuma.  
(1.3)  Si dōkān ṭaḥāṣa ṭiḥa ṭibl ṭaḥāṣa ṭuṭama ẖa ḫāʾir yahuma.  

XIV. PRE-ATER PAST: WOULD HAVE WRITTEN  

(A) Systematic Functions  

(1.1)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.2)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.3)  Ḳaḥāṭ saʿākin ᶹa ḫāʾir yahuma.  

(B) Non-Systematic Functions  

(1.1)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.2)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.3)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.4)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.5)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.6)  Ḳaḥāṭ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(1.7)  Ḳaḥāṭ saʿākin ᶹa ḫāʾir yahuma.  
(2.1)  Ḳaṭṭaḥ saʿākin ḥe brazil ʿaʿzāna ẖa ḫāʾir yahuma.  
(2.2)  Ḳaṭṭaḥ saʿākin ᶹa ḫāʾir yahuma.  
(2.3)  Ḳaṭṭaḥ saʿākin ᶹa ḫāʾir yahuma.
XV. SIMULTANEOUS PRE-LEATER PRESENT: WILL HAVE BEEN WRITING

(A) Systematic Functions

(1.1) Systematic Functions

(B) Non-Systematic Functions

XVI. SIMULTANEOUS PRE-LEATER PAST: WOULD HAVE BEEN WRITING

(A) Systematic Functions

(1.1) Systematic Functions
Non-Systematic Functions

1. (1.1) Fada, kanta saakin aisanarai dama kwallon amsar ba.
Kanta saakin aisanarai dama kwallon amsar ba.
Kanta saakin aisanarai dama kwallon amsar ba.

2. (2.1) Kanta za'farin saakin kwallon amsar ba.
Kanta za'farin saakin kwallon amsar ba.

3. (2.3) Kanta saakin zuwa aisanarai dama kwallon amsar ba.
Kanta saakin zuwa aisanarai dama kwallon amsar ba.

4. (2.4) Kanta saakin zuwa aisanarai dama kwallon amsar ba.
Kanta saakin zuwa aisanarai dama kwallon amsar ba.

5. (2.5) Kanta saakin zuwa aisanarai dama kwallon amsar ba.
Kanta saakin zuwa aisanarai dama kwallon amsar ba.

6. (3.2) Lo kowa za'farin saakin aisanarai dama kwallon amsar ba.
Lo kowa za'farin saakin aisanarai dama kwallon amsar ba.

7. (3.3) Kanta saakin zuwa aisanarai dama kwallon amsar ba.
Kanta saakin zuwa aisanarai dama kwallon amsar ba.

8. (3.4) Lo kowa za'farin saakin aisanarai dama kwallon amsar ba.
Lo kowa za'farin saakin aisanarai dama kwallon amsar ba.

9. (3.5) Kanta saakin zuwa aisanarai dama kwallon amsar ba.
Kanta saakin zuwa aisanarai dama kwallon amsar ba.
SELECTED BIBLIOGRAPHY

ARABIC SOURCES

Anīs, Ibrāhīm. Min Asrārī Llughā (Cairo: 1966, third printing)

Furayha, Anīs. Nahwā 9arabiyya Muyassara (Beirut: Dāru Ththaqāfa, 1955)

Al-Makhzūmī, Mahdi. Fi Nnahwi L9arabi (Beirut: Al-Maktaba L9asriyyā, 1964)


Sībawayh. Al-Kitāb, edited by Hartwig Derenbourg (Paris: A L'imprimerie Nationale, 1881)

ENGLISH SOURCES


———. Syntactic Structures (The Hague: Mouton, 8th printing, 1969)


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


Jakobson, S. Adverbial Positions in English (Uppsala: Åb Studentbok, 1964)

Jespersen, Otto. A Modern English Grammar on Historical Principles (Heidelberg: Carl Winters Universitätsbuchhandlung, 1931)


Lado, Robert. **Linguistics Across Cultures** (Ann Arbor: The University of Michigan Press, 6th printing, 1964)


Lyons, J. **Introduction to Theoretical Linguistics** (Cambridge: The University Press, 1969)

Moscati, S., A. Spitaler, E. Ullendorff, and W. Von Soden. **An Introduction to the Comparative Grammar of the Semitic Languages** (Wiesbaden: Otto Harrassowitz, 1964)


Murray, Lindley. **English Grammar Adapted to the Different Classes of Learners** (York: Thomas Wilson & Sons, 1816)


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


Strang, Barbara M. H. Modern English Structure (London: Edward Arnold Ltd., 1962)


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